



March 5, 2015

Via Hand Delivery

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

**Re: Request of Light Squared for an Order to Approve the Shared Use of the
Existing Tower located at 93 Old Amity Road, Bethany, CT**

Dear Ms. Bachman:

Light Squared, Inc. ("Light Squared") intends to install antennas on the existing 338-foot self-supporting tower owned by American Tower Corporation at 93 Old Amity Road, Bethany, CT. Light Squared hereby requests an order from the Connecticut Siting Council ("Council") to approve the shared use by Light Squared of an existing telecommunications facility pursuant to Conn. Gen. Stat. § 16-50aa. Light Squared requests that the council find the proposed shared use of the tower satisfies the criteria of Conn. Gen. Stat. § 16-50aa and issue an order approving the proposed shared use. A copy of this letter is also being sent to Derrylyn Gorski, First Selectman of the Town of Bethany and to American Tower who is the owner of the property on which the tower is located.

Background

The facility consists of a 338-foot self-supporting tower capable of supporting multiple carriers within a fenced compound at 93 Old Amity Road, Bethany, CT (Latitude 41.404757 and Longitude -73.000011). This existing tower has other approved carriers installed that were previously approved by the Connecticut Siting Council. Light Squared intends to install one (1) antenna on the existing tower at the 326-foot level. An associated equipment rack will be placed inside an existing shelter within the existing compound on the ground near the base of the tower, within the fenced compound. Attached behind Exhibit A are Project Plans for the proposed Light Squared facility.

The planned modifications to the Bethany facility fall squarely within those activities explicitly provided for in R.C.S.A. §16-50j-89.

1. The proposal is technically, legally, environmentally and economically feasible and meets public safety concerns per Conn. Gen. Stat. § 16-50aa.



- A. **Technical Feasibility.** The existing tower is structurally capable of supporting Light Square's proposed improvements. The proposed shared use is therefore technically feasible. Please see the structural analysis attached in Exhibit B.
- B. **Legal Feasibility.** Per Conn. Gen. Stat. § 16-50aa, the Council has been authorized to issue orders approving the shared use of the existing tower. The tower share request fulfills the intent of Conn. Gen. Stat. § 16-50aa to avoid unnecessary towers to be built.
- C. **Environmental Feasibility.** The proposed shared use would have a minimal effect for the following reasons:
1. The proposed installation will not increase the height of the Tower and will be consistent with other installations at the site. The Light Squared facility will not create any significant change or alteration to the physical or environmental characteristics of the existing facility.
 2. The equipment rack that is being installed at the site is being placed inside an existing shelter so it will not create any additional noise at the facility.
 3. The operation of the additional equipment would not exceed the total radio frequency electromagnetic radiation power density level adopted by the FCC and Connecticut Department of Health. Please see report attached in Exhibit D.
- D. **Economic Feasibility.** Light Squared has entered into a mutual agreement with American Tower to share use of the facility on agreeable terms to both parties. Therefore the tower share is economically feasible.
- E. **Public Safety:** As noted above the tower is structurally capable of supporting the new equipment proposed by Light Squared and a structural report has been provided in the following exhibit. The additional service that the Light Squared installation will provide will enhance the safety and welfare of local residents and those traveling the roads in the area.
2. Engineering drawings are attached in Exhibit A that depict the existing facility and appurtenances and show modifications to be made.
 3. An engineering structural analysis is attached in Exhibit B describing the existing tower's structural capability to accommodate the proposed modifications. The analysis is also stamped by a Professional Engineer licensed in the State of Connecticut.
 4. Exhibit C is a letter from the owner of the facility American Tower which shows that the owner agrees to the proposed shared use of the facility.



5. There is no potential environmental impact associated with the proposed shared use, including, but not limited to, on visibility, wetlands and water resources, air quality and noise. The rack that is being installed will be placed inside an existing shelter so no additional noise will be generated.
6. Exhibit D shows the calculation, based on an approved methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), of the power density of the radio frequency emissions to be generated by the existing antennas and the antennas to be installed. The proposed modification is within the allowed limits.

Conclusion

For the foregoing reasons, the proposed shared use of the existing tower at 93 Old Amity Road, Bethany, CT, satisfies the criteria of Conn. Gen. Stat. § 16-50aa and advances the Councils goal of preventing unnecessary proliferation of additional towers in the State of Connecticut. Light Squared respectfully requests that the Connecticut Siting Council issue an order approving the proposed shared use of the existing facility.

Attached to the application is one original and 15 copies of the tower share application with a \$625 filing fee. (Conn. Gen. Stat. §4-189j; Regs., Conn. State Agencies §16-50v-1a).

Please contact me with any questions or concerns 781-831-1281.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig Cody". The signature is fluid and cursive.

Craig Cody

Agent for Light Squared

Tower Resource Management

16 Chestnut Street, Suite 220

Foxborough, MA 02035

781-831-1281

ccody@trmcom.com



Exhibit A

Drawings



Exhibit B

Structural Analysis



Exhibit C

Owner Letter



Exhibit D

Noise Study



Exhibit E

Power Density Calculations



SITE NAME: CONN 3
SITE NUMBER: 88008
SITE ADDRESS: 93 OLD AMITY RD
BETHANY, CT 06524



THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIC PROJECT IS STRICTLY PROHIBITED. TITLE TO THESE DRAWINGS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JMA	02/13/15

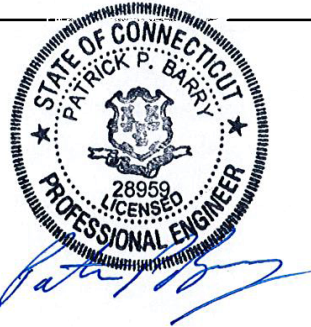
ATC SITE NUMBER:
88008

ATC SITE NAME:
BETHANY CT

SITE ADDRESS:
93 OLD AMITY RD
BETHANY, CT 06524



SEAL:



Feb 13 2015 1:14 PM

DRAWN BY:	JMA
APPROVED BY:	KRF
DATE DRAWN:	02/13/15
ATC JOB NO:	610511A3

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

REVISION NUMBER:

0

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX					
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. INTERNATIONAL BUILDING CODE (IBC) 2. NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 93 OLD AMITY RD BETHANY, CT 06524 COUNTY: NEW HAVEN <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41° 24' 17.13" N LONGITUDE: 72° 59' 59.94" W GROUND ELEVATION: 620'	THE PROPOSED PROJECT INCLUDES PLACING A NEW EQUIPMENT RACK INSIDE AN EXISTING SHELTER WITHIN THE EXISTING COMPOUND, AND INSTALLING A NEW ANTENNA MOUNTED ON THE EXISTING TOWER.	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:	
			T-1	TITLE SHEET	0	02/13/15	JMA	
			GN-1	GENERAL NOTES	0	02/13/15	JMA	
		PROJECT NOTES		C-1	DETAILED SITE PLAN & TOWER ELEVATION	0	02/13/15	JMA
		1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED.	C-2	ANTENNA INFORMATION	0	02/13/15	JMA	
	C-3		CONSTRUCTION DETAILS	0	02/13/15	JMA		
	E-1		ELECTRICAL RISER DIAGRAM AND NOTES	0	02/13/15	JMA		
	E-2		GROUNDING LAYOUT	0	02/13/15	JMA		
	E-3		STANDARD GROUNDING DETAILS	0	02/13/15	JMA		
	PROJECT TEAM	PROJECT LOCATION DIRECTIONS						
<u>TOWER OWNER:</u> AMERICAN TOWER CORPORATION 116 HUNTINGTON AVE BOSTON, MA 02116 <u>PROPERTY OWNER:</u> AMERICAN TOWER CORPORATION 116 HUNTINGTON AVE BOSTON, MA 02116 <u>ENGINEER:</u> ATC TOWER SERVICES 3500 REGENCY PARKWAY SUITE 100 CARY, NC 27518	FROM NEW HAVEN, CT: TAKE RT 34 W TO RT 63 N. FOLLOW RT 63 N TO OLD AMITY RD. FORK RIGHT ONTO OLD AMITY RD. AND FOLLOW UP THE HILL TO THE FORK. FORK RIGHT AGAIN TO DEAD END STREET. ACCESS ROAD ENTRANCE WILL BE ON THE LEFT.							
UTILITY COMPANIES								
POWER COMPANY: UNITED ILLUMINATING PHONE: (800) 772-5584 TELEPHONE COMPANY: AT&T PHONE: (800) 331-0500								

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GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE ATC CM PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE ATC CM PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE ATC CM, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE ATC CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE ATC CONSTRUCTION MANAGER IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH ATC WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH ATC CM TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH ATC CONSTRUCTION MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY ATC. ALL REQUIRED PERMITS NOT OBTAINED BY ATC MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH ATC SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ATC FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO ATC SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY ATC CM A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS SUCH AS SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS

- REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE ATC CM. ANY WORK FOUND BY THE ATC CM TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

CONCRETE AND REINFORCING STEEL NOTES:

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF ALL APPLICABLE CODES INCLUDING: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
2. MIX DESIGN SHALL BE APPROVED BY ATC CM PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6 % AIR ENTRAINED (+/- 1.5%) WITH A SLUMP RANGE OF 3-6" AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
4. THE FOLLOWING MATERIALS SHALL BE USED:

PORTLAND CEMENT: ASTM C150, TYPE 2

REINFORCEMENT: ASTM A185, PLAIN STEEL WELDED WIRE FABRIC

REINFORCEMENT BARS: ASTM A615, GRADE 60, DEFORMED

NORMAL WEIGHT AGGREGATE: ASTM C33

WATER: ASTM C 94/C 94M

ADMIXTURES:

-WATER-REDUCING AGENT: ASTM C 494/C 494M, TYPE A

-AIR-ENTERING AGENT: ASTM C 260/C 260M

-SUPERPLASTICIZER: ASTM C494, TYPE F OR TYPE G

-RETARDING: ASTM C 494/C 494M, TYPE B
5. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE NO LESS THAN 3".
6. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE IN ACCORDANCE WITH ACI 301 SECTION 4.2.4, UNLESS NOTED OTHERWISE.
7. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ATC CM APPROVAL WHEN DRILLING HOLES IN CONCRETE.
8. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN "METHOD 1" OF ACI 301.
9. DO NOT WELD OR TACK WELD REINFORCING STEEL.
10. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
11. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
12. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
13. DO NOT ALLOW REINFORCEMENT, CONCRETE OR SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 3 DAYS AFTER PLACEMENT.
14. FOR COLD-WEATHER(ACI 306) AND HOT-WEATHER(ACI 301M) CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
15. ALL CONCRETE SHALL HAVE A "SMOOTH FORM FINISH."
16. UNLESS OTHERWISE NOTED:

A. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615/A 615M/A-996, GRADE 60.

B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
17. SPLICING OF REINFORCEMENT IS PERMITTED ONLY AT LOCATIONS SHOWN IN THE CONTRACT DRAWINGS OR AS ACCEPTED BY THE ENGINEER. UNLESS OTHERWISE SHOWN OR NOTED REINFORCING STEEL SHALL BE SPLICED TO DEVELOP ITS FULL TENSILE CAPACITY (CLASS A) IN ACCORDANCE WITH ACI 318.
18. REINFORCING BAR DEVELOPMENT LENGTHS, AS COMPUTED IN ACCORDANCE WITH ACI 318, FORM THE BASIS FOR BAR EMBEDMENT LENGTHS AND BAR SPLICED LENGTHS SHOWN IN THE

- DRAWINGS. APPLY APPROPRIATE MODIFICATION FACTORS FOR TOP STEEL, BAR SPACING, COVER AND THE LIKE.
19. DETAILING OF REINFORCING STEEL SHALL CONFORM TO "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
20. ALL SLAB CONSTRUCTION SHALL BE CAST MONOLITHICALLY WITHOUT HORIZONTAL CONSTRUCTION JOINTS, UNLESS SHOWN IN THE CONTRACT DRAWINGS.
21. LOCATION OF ALL CONSTRUCTION JOINTS ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONFORMANCE WITH ACI 318, AND ACCEPTANCE OF THE ENGINEER. DRAWINGS SHOWING LOCATION OF DETAILS OF THE PROPOSED CONSTRUCTION JOINTS SHALL BE SUBMITTED WITH REINFORCING STEEL PLACEMENT DRAWINGS.
22. SPLICES OF WWF, AT ALL SPLICED EDGES, SHALL BE SUCH THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS 2 INCHES, NOR LESS THAN 6".
23. BAR SUPPORTS SHALL BE ALL-GALVINIZED METAL WITH PLASTIC TIPS.
24. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT BY CONSTRUCTION TRAFFIC OR CONCRETE. TIE WIRE SHALL BE OF SUFFICIENT STRENGTH FOR INTENDED PURPOSE, BUT NOT LESS THAN NO. 18 GAUGE.
25. SLAB ON GROUND:

A. COMPACT STRUCTURAL FILL TO 95% DENSITY AND THEN PLACE 6" GRAVEL BENEATH SLAB.

B. PROVIDE VAPOR BARRIER BENEATH SLAB ON GROUND.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:

A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE

B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.

C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)

D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS

E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:

A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.

B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.

C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.

D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.

E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.

F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.

G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.



THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
	FOR CONSTRUCTION	JMA	02/13/15

ATC SITE NUMBER:

88008

ATC SITE NAME:

BETHANY CT

SITE ADDRESS:

93 OLD AMITY RD

BETHANY, CT 06524



SEAL:



Feb 13 2015 1:15 PM

DRAWN BY:	JMA
APPROVED BY:	KRF
DATE DRAWN:	02/13/15
ATC JOB NO:	610511A3

SHEET TITLE:	
GENERAL NOTES	
SHEET NUMBER:	REVISION NUMBER:
GN-1	0

SITE PLAN NOTES:

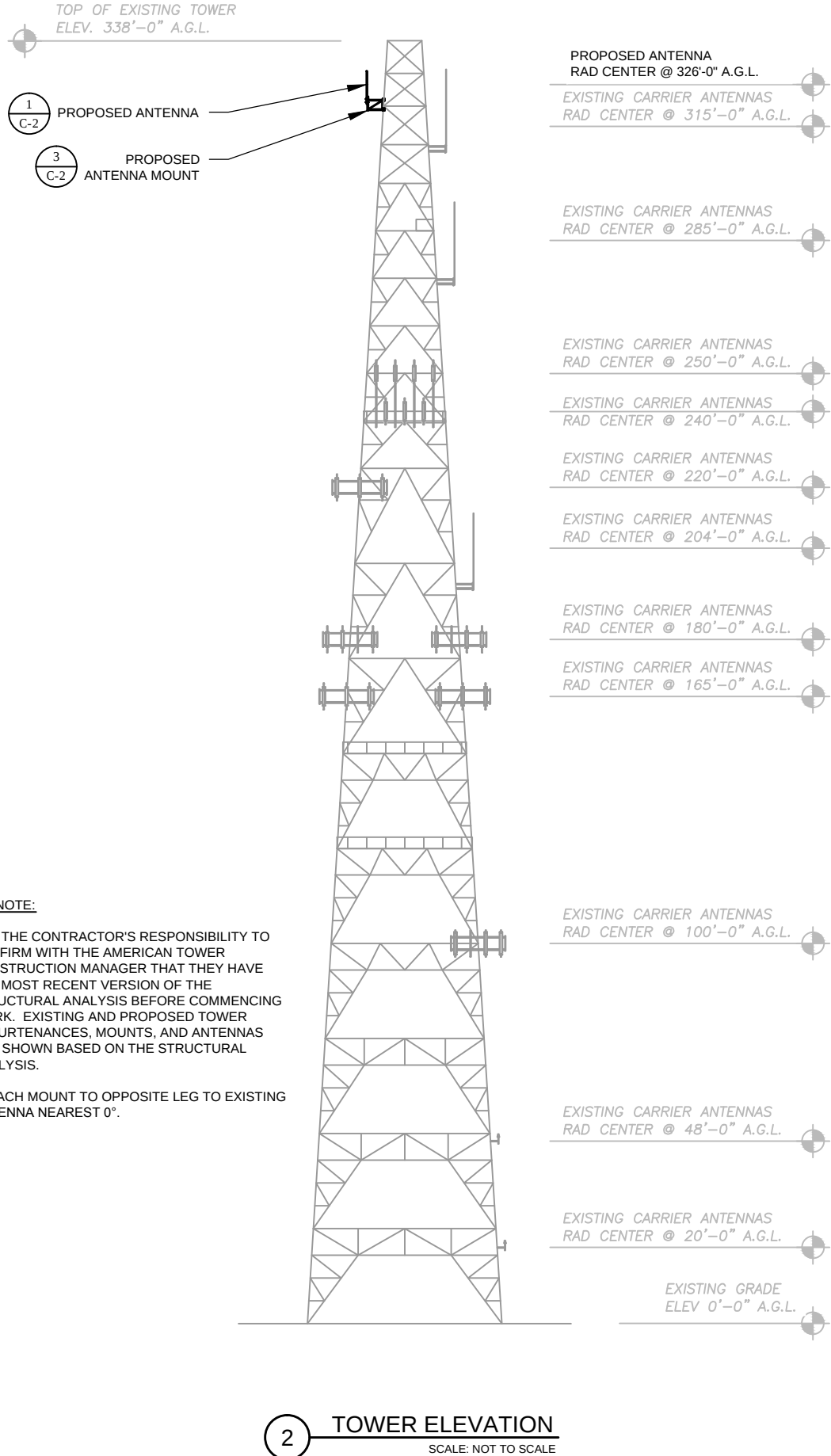
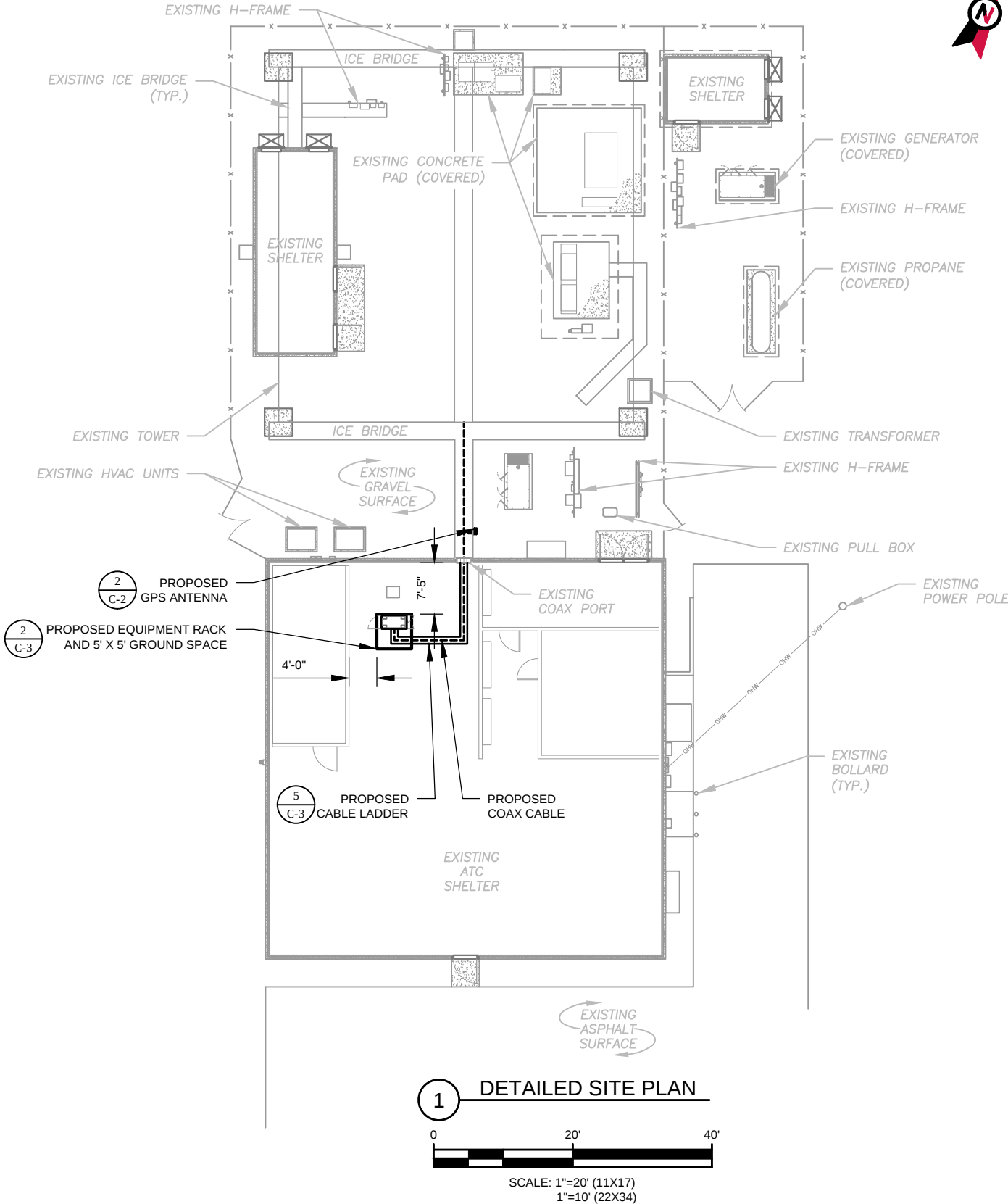
1.

THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2.

ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE ATC CONSTRUCTION MANAGER AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
4.

USE EXISTING WAVEGUIDE LADDER/MOUNT FOR VERTICAL CABLE RUN WHERE FEASIBLE.COAX ATTACHMENT TO THE TOWER CANNOT BE INSTALLED ON THE CLIMBING LADDER. QUICK TIES ARE NOT AN ACCEPTABLE METHOD OF COAX ATTACHMENT.





AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: C01229-00

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REV.	DESCRIPTION	BY	DATE
△	FOR CONSTRUCTION	JMA	02/13/15
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△			
△			

ATC SITE NUMBER:
88008
ATC SITE NAME:
BETHANY CT

SITE ADDRESS:
93 OLD AMITY RD
BETHANY, CT 06524



SEAL:



Feb 13 2015 1:15 PM

DRAWN BY:	JMA
APPROVED BY:	KRF
DATE DRAWN:	02/13/15
ATC JOB NO:	610511A3

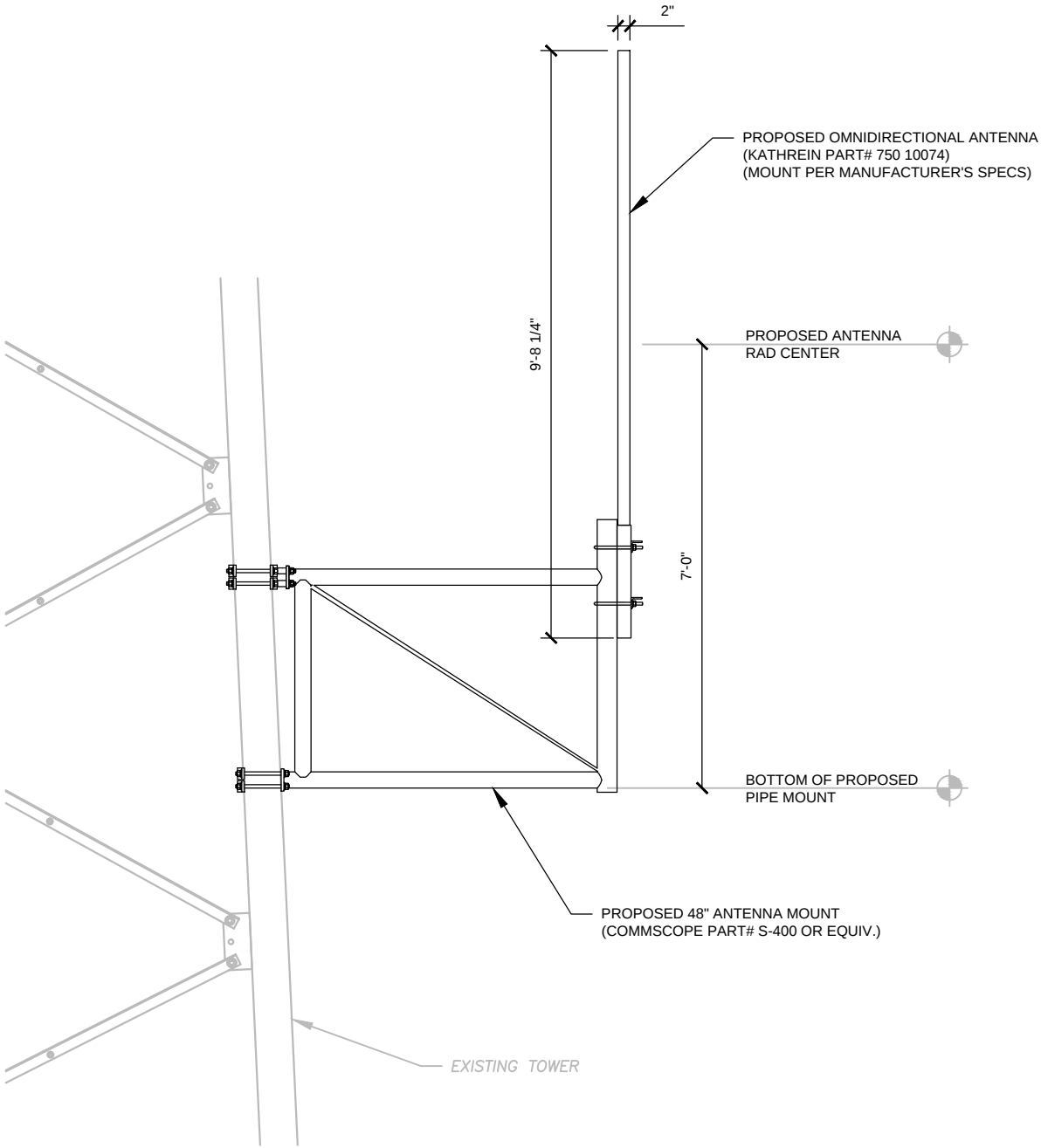
SHEET TITLE:
**DETAILED SITE PLAN &
TOWER ELEVATION**

SHEET NUMBER: C-1	REVISION NUMBER: 0
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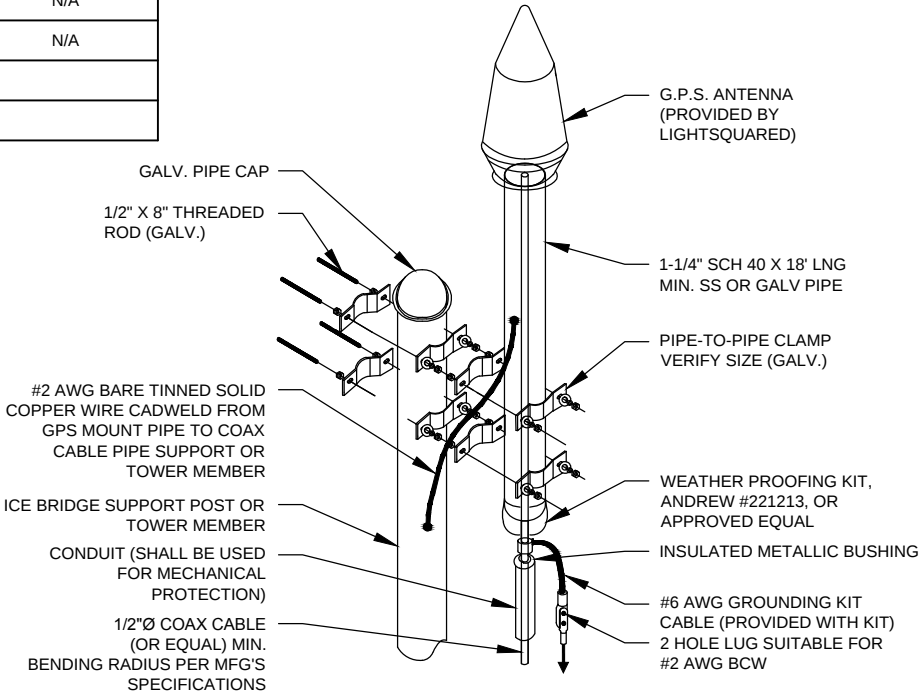
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RF SHEDULE & B.O.M.							
ITEM	MANUFACTURER	PART NUMBER	SUPPLIER	QUANTITY	LENGTH	RAD CENTER	AZIMUTH (TRUE NORTH)
OMNI ANTENNA	KATHREIN	750-10074	LIGHTSQUARED	1	N/A	326'-0"	0°
GPS ANTENNA	PCTEL	GPS-TMG-HR-26N	LIGHTSQUARED	1	N/A	12'±	180°
COAX	RFS	LCF214-50JA 2-1/4"Ø	CONTRACTOR	1	425'±	N/A	N/A
COAX JUMPER	COMMSCOPE	LDF4-50A 1/2"Ø	CONTRACTOR	2	6' EA.	N/A	N/A
GPS COAX	COMMSCOPE	LDF4-50A 1/2"Ø	CONTRACTOR	1	49'±	N/A	N/A
1. BASED ON BUILD PLAN GUIDANCE THRU 11/2014. CONFIRM WITH ATC CM FOR APPLICABLE UPDATES/REVISIONS.							
2. CONTRACTOR SHALL SUPPLY ALL CONNECTORS WHICH ARE 7/16 DIN - MALE EXCEPT FOR GPS AND THEY ARE N-MALE.							

1 RF SCHEDULE
SCALE: NOT TO SCALE

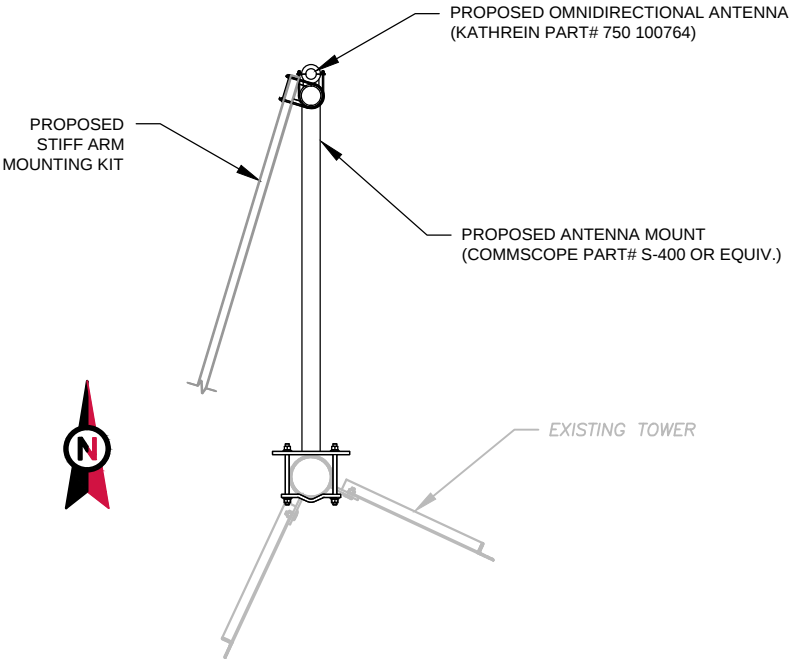


3 PROPOSED ANTENNA MOUNTING DETAIL (ELEVATION)
SCALE: NOT TO SCALE



NOTE: GPS SHALL BE PLACED WITH CLEAR SIGHT LINE TO THE SOUTHERN SKY

2 GPS ANTENNA ATTACHMENT
SCALE: NOT TO SCALE



4 PROPOSED ANTENNA MOUNTING DETAIL (PLAN VIEW)
SCALE: NOT TO SCALE



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SHEET TITLE:

ANTENNA INFORMATION

SHEET NUMBER:

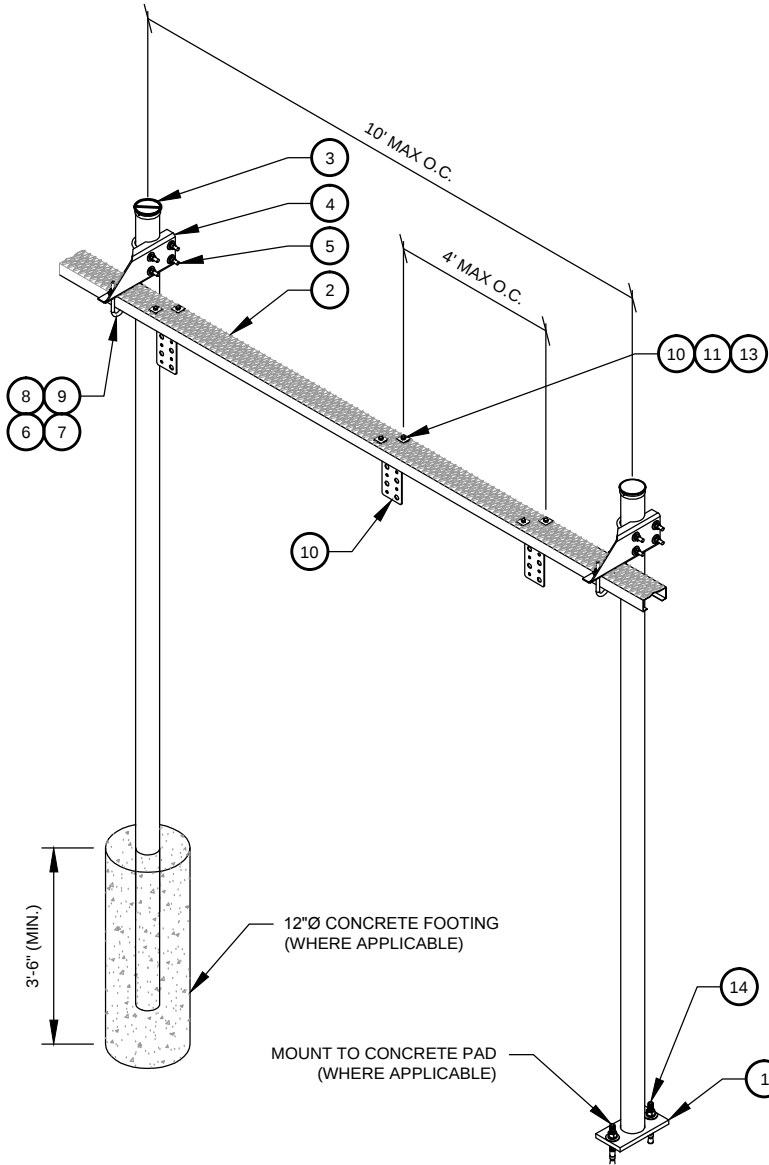
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REVISION NUMBER:

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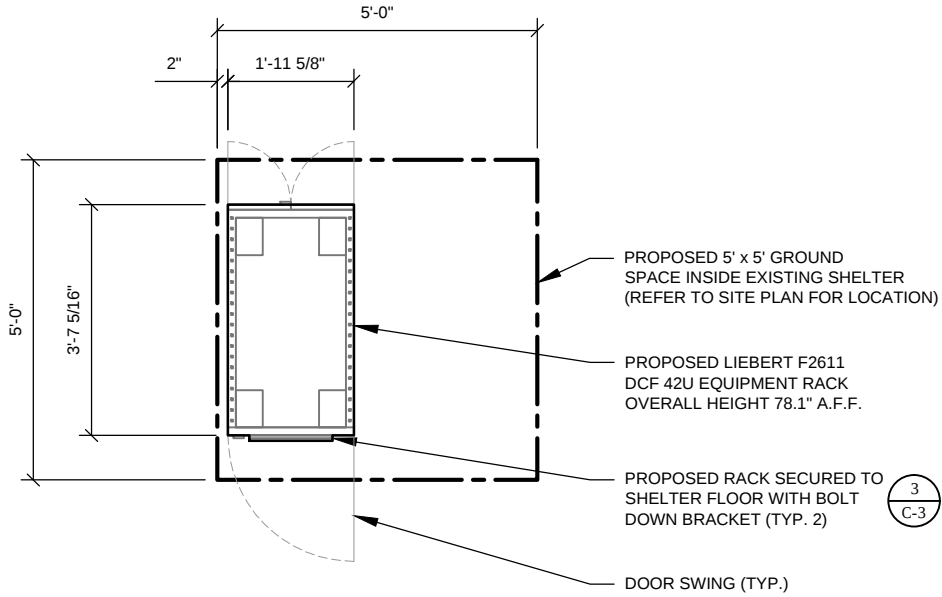
1. WHERE POSSIBLE AND AS APPLICABLE, THE CONTRACTOR SHALL UTILIZE EXISTING ICE BRIDGE, CABLE LADDER, COAX SUPPORTS, AND COAX PORTS. BEFORE UTILIZING, CONTRACTOR SHALL VERIFY THAT ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF NEW ICE BRIDGE, CABLE LADDER, COAX SUPPORT, AND COAX PORT, AS REQUIRED, WITH THE ATC CONSTRUCTION MANAGER.



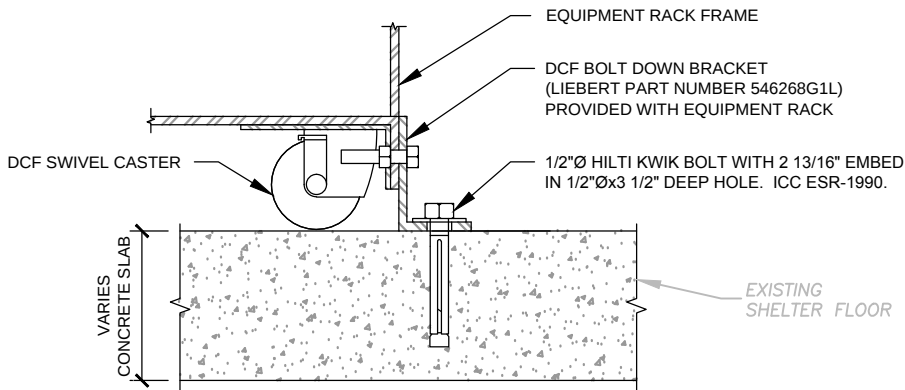
CABLE LADDER - BILL OF MATERIALS					
ITEM	PART NUMBER	DESCRIPTION	ITEM	PART NUMBER	DESCRIPTION
1	MF126.01	BASE SHOE	8	GWL-04	1/2" GALV LOCK WASHER
2	WB-CY0510	SAFETY GRATING 5" X 10'	9	GN-04	1/2" GALV HEX NUT
3	PC-034	PIPE CAP 3-1/2"	10	ZBV601	SINGLE 6 CABLE BRACKET
4	WBLB0501	5" WAVEGUIDE BRIDGE SUPPORT BRACKET	11	MT-387	SQUARE WASHER, 1-1/2" X 1-1/2" W/ 7/16" HOLE
5	GUB-4356	1/2" X 3-5/8" X 6" GALV U-BOLT	12	GWF-03	3/8" GALV FLAT WASHER
6	WB-JB-6	1/2" J-BOLT	13	GB-03205	3/8" X 2" GALV BOLT KIT
7	GWF-04	1/2" GALV FLAT WASHER	14	MT-287	3/4" x 7" WEDGE ANCHOR

NOTE: CONTRACTOR SHALL USE PARTS MANUFACTURED BY COMMSCOPE AS SHOWN OR APPROVED EQUIVALENT.

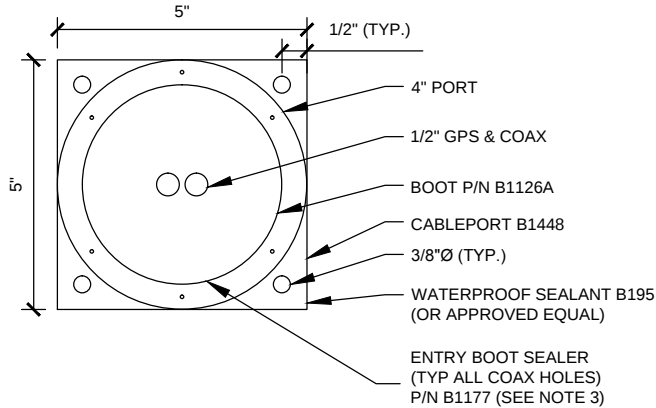
1 WAVEGUIDE BRIDGE KIT
SCALE: NOT TO SCALE



2 DETAILED EQUIPMENT LAYOUT
SCALE: NOT TO SCALE



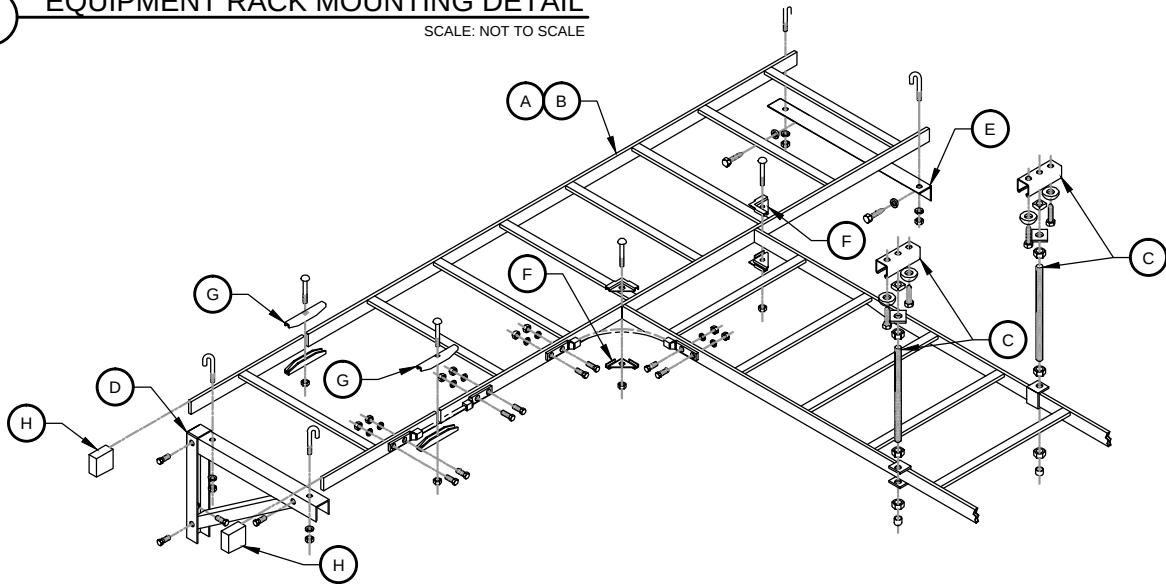
3 EQUIPMENT RACK MOUNTING DETAIL
SCALE: NOT TO SCALE



COAX PORT NOTES:

1. CONTRACTOR TO THOROUGHLY DRY AREA BEFORE CORING, INSTALLING AND SEALING CABLEPORT & BOOTS.
2. ALL PART NUMBERS ARE MICROFLECT
3. CONTRACTOR TO FILL THE BOOT CAVITY W/ BOOT SEALER TO FORM A CONICAL SHAPE TO ALLOW WATER RUN OFF.
4. 2 TUBES OF B1177 ARE REQUIRED FOR EACH BOOT.
5. WATERPROOF ALL EDGES AND HOLES.

4 SINGLE COAX PORT DETAIL
SCALE: NOT TO SCALE



5 CABLE LADDER DETAIL
SCALE: NOT TO SCALE

CABLE LADDER - BILL OF MATERIALS		
KEY	ITEM	PART NUMBER
A	10' LADDER RACK RUNWAY	ICCMSLST10
B	5' LADDER RACK RUNWAY	ICCMSLST05
C	CEILING MOUNT KIT WITH 6' ROD	ICCMSLCMRK
D	WALL SUPPORT TRIANGLE & HARDWARE	ICCMSLTWSK
E	WALL SUPPORT BRACKET & HARDWARE	ICCMSLAWSK
F	TEE JUNCTION SPLICE KIT	ICCMSLTJSK
G	RUNWAY BUTT SPLICE KIT	ICCMSLEBSK
H	PROTECTIVE END CAP	ICCMSLPECK
I	LADDER RACK, RUNWAY, 90° FLAT TURN	ICCMSLFT90

NOTE: CONTRACTOR SHALL USE PARTS MANUFACTURED BY ICC AS SHOWN OR APPROVED EQUIVALENT.



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CONSTRUCTION
DETAILS

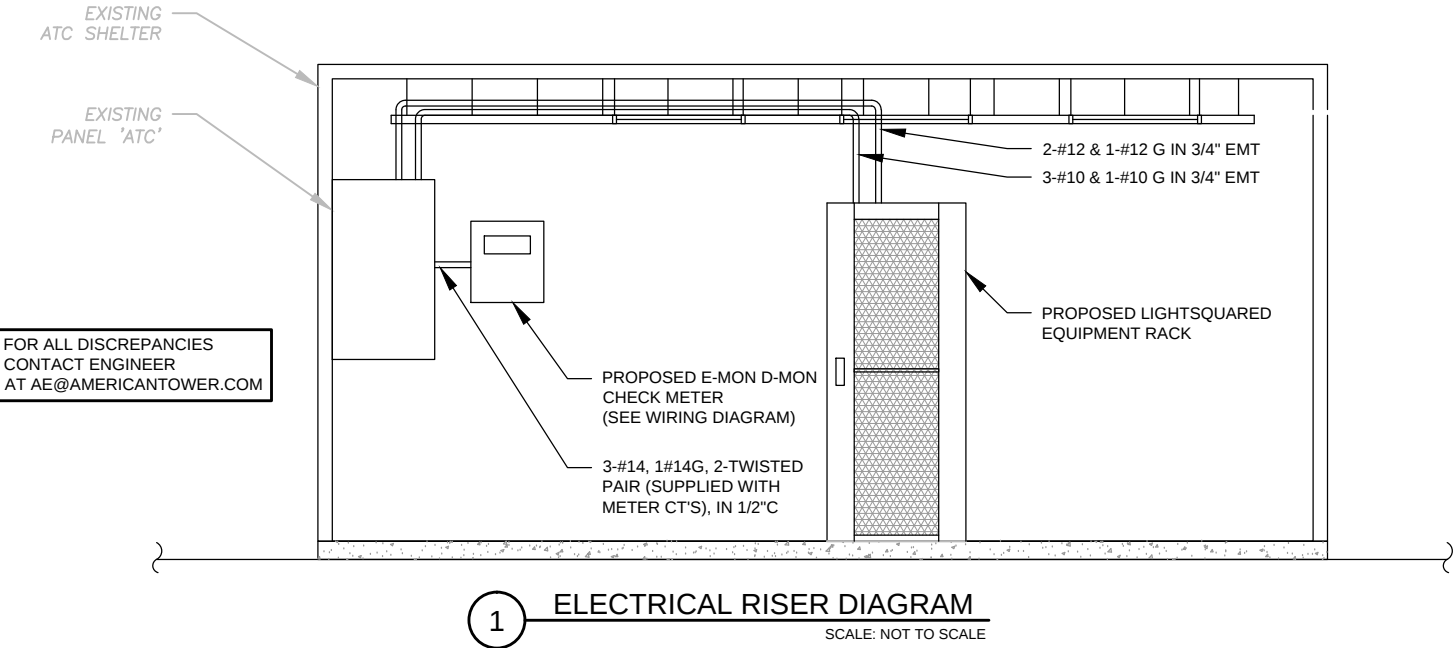
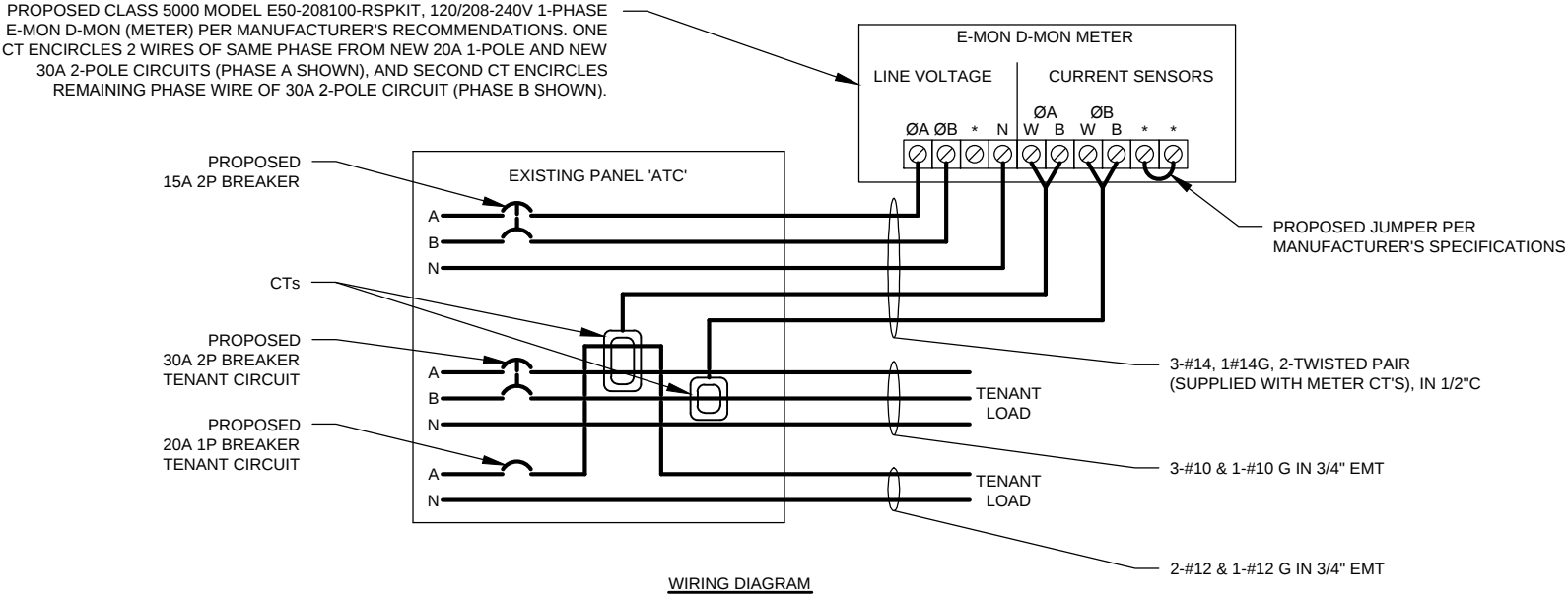
SHEET NUMBER:

C-3

REVISION NUMBER:

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IDENTIFICATION:

- ALL PANELS, CIRCUIT BREAKERS, JUNCTION BOXES, ETC. AND SIMILAR ITEMS INSTALLED UNDER THIS PROJECT SHALL BE IDENTIFIED BY NAME, FUNCTION AND/OR CONTROL. INCLUDED ON NAME PLATES SHALL BE THE VOLTAGE OF THE INVOLVED CIRCUITS. CHARACTERS ON NAME PLATES SHALL BE NOT LESS THAN 1/4" HIGH. THEY SHALL BE MADE UP OF 2 LAMINATED BLACK PLASTIC SHEETS BONDED WITH A MIDDLE SHEET OF WHITE PLASTIC AND CHARACTERS ENGRAVED IN 1 BLACK SHEET TO THE DEPTH OF THE WHITE PLASTIC.
- POWER OUTLET/JUNCTION BOXES SHALL BE IDENTIFIED WITH A PERMANENT, WATERPROOF MARKER IDENTIFYING THE SPECIFIC PANEL AND CIRCUIT NUMBER OR EQUIVALENT. OUTLET BOXES WITH FACE PLATES SHALL BE LABELED WITHIN THE BOX AND JUNCTION BOXES SHALL BE LABELED ON THE EXPOSED COVER OF THE BOX.
- COLOR CODING OF NEW WIRE SHALL MATCH EXISTING. IF A NEW INSTALLATION, OR IF THE EXISTING SYSTEM IS NOT COLOR CODED AND THE OWNER DOES NOT HAVE A PREFERENCE, COLOR CODING SHALL FOLLOW INDUSTRY STANDARD PRACTICES AND ALL APPLICABLE CODES.
- PROVIDE A TYPED INDEX DIRECTORY IN EACH NEW PANELBOARD INDICATING THE ITEM OR ITEMS CONTROLLED BY EACH BREAKER. UPDATE EACH EXISTING PANELBOARD AFFECTED BY THIS PROJECT WITH A NEW TYPED INDEX DIRECTORY WITH THE CHANGES.

CONDUCTORS AND CABLES:

- ALL CONDUCTORS FOR LIGHTING AND POWER FEEDERS AND BRANCH CIRCUIT WIRING SHALL BE RATED 600 VOLTS AND 98 PERCENT CONDUCTIVITY COPPER TYPE THHN/THWN. ALUMINUM CONDUCTORS WILL NOT BE ACCEPTABLE.
- CONDUCTORS FOR NO. 10 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS LARGER THAN NO. 10 AWG SHALL BE STRANDED. CONDUCTORS SMALLER THAN NO. 12 AWG SHALL NOT BE USED.
- ALL CONDUCTORS SHALL BE RUN IN CONDUIT AS HEREIN SPECIFIED. WIRING SHALL BE CODE SIZE EXCEPT WHERE DRAWINGS INDICATE LARGER SIZE.

DISCONNECT (SAFETY) SWITCHES:

- SAFETY SWITCHES SHALL BE OF THE RATING INDICATED ON DRAWINGS. SAFETY SWITCHES SHALL BE "HEAVY DUTY" TYPE FUSED OR NON-FUSED, AS INDICATED, WITH POSITIVE QUICK-MAKE AND QUICK-BREAK OPERATING MECHANISM WITH EXTERNAL OPERATING HANDLE, AND BE CONTAINED WITHIN A GENERAL PURPOSE, NEMA 1 TYPE, ENCLOSURE, UNLESS OTHERWISE INDICATED. MECHANISM SHALL BE ENCLOSED IN A CODE GAUGE SHEET METAL CABINET WITH HINGED FRONT COVER. STEEL CABINET SHALL BE PAINTED GRAY INSIDE AND OUTSIDE. EACH SWITCH SHALL BE EQUIPPED WITH SOLDERLESS LUGS TO ACCOMMODATE SIZE WIRE AS INDICATED ON THE DRAWINGS.

ATC PANEL NOTES:

- IN EXISTING PANEL 'ATC', INSTALL 3 CIRCUIT BREAKERS SUITABLE AND LISTED FOR THE APPLICATION:
 - 1, 2-POLE 30A BREAKER SUPPLYING NEW 2.34KVA DEMAND LOAD.
 - 1, 1-POLE 20A BREAKER SUPPLYING NEW 0.18KVA DEMAND LOAD.
 - 1, 2-POLE 15A BREAKER PROVIDING VOLTAGE REFERENCE FOR E-MON D-MON METER, 6VA DEMAND LOAD.
- ADDITIONAL DEMAND LOAD OF 2.53KVA TO EXISTING PANEL ATC HAS BEEN DETERMINED TO BE WITHIN THE AVAILABLE DEMAND LOAD CAPACITY OF PANEL ATC.
- INSTALLER SHALL PROPERLY UPDATE THE PANEL SCHEDULE PER NEC TO SHOW EVERY CIRCUIT (NEW AND EXISTING) TO BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. THE IDENTIFICATION SHALL INCLUDE AN APPROVED DEGREE OF DETAIL THAT ALLOWS EACH CIRCUIT TO BE DISTINGUISHED FROM ALL OTHERS.

EQUIPMENT CONNECTIONS:

- PROVIDE ALL POWER WIRING FOR ALL NEW AND OWNER FURNISHED EQUIPMENT UNDER THIS PROJECT. POWER WIRING SHALL BE EXTENDED TO AND THROUGH DISCONNECTING DEVICES, LOCAL CONTROL DEVICES, CONTROL PANELS, ETC. AND TO THE EQUIPMENT AS REQUIRED AND/OR AS HEREINAFTER SPECIFIED. NEW EQUIPMENT SHALL BE INSTALLED WITH THE PROPER ROTATION AND SHALL BE COMPLETE WITH CONTROL EQUIPMENT, CONTROL WIRING, CONDUIT, AND ALL OTHER ITEMS NECESSARY FOR SATISFACTORY OPERATION.



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DRAWN BY:	JMA
APPROVED BY:	KRF
DATE DRAWN:	02/13/15
ATC JOB NO:	610511A3

SHEET TITLE:
**ELECTRICAL RISER
DIAGRAM AND NOTES**

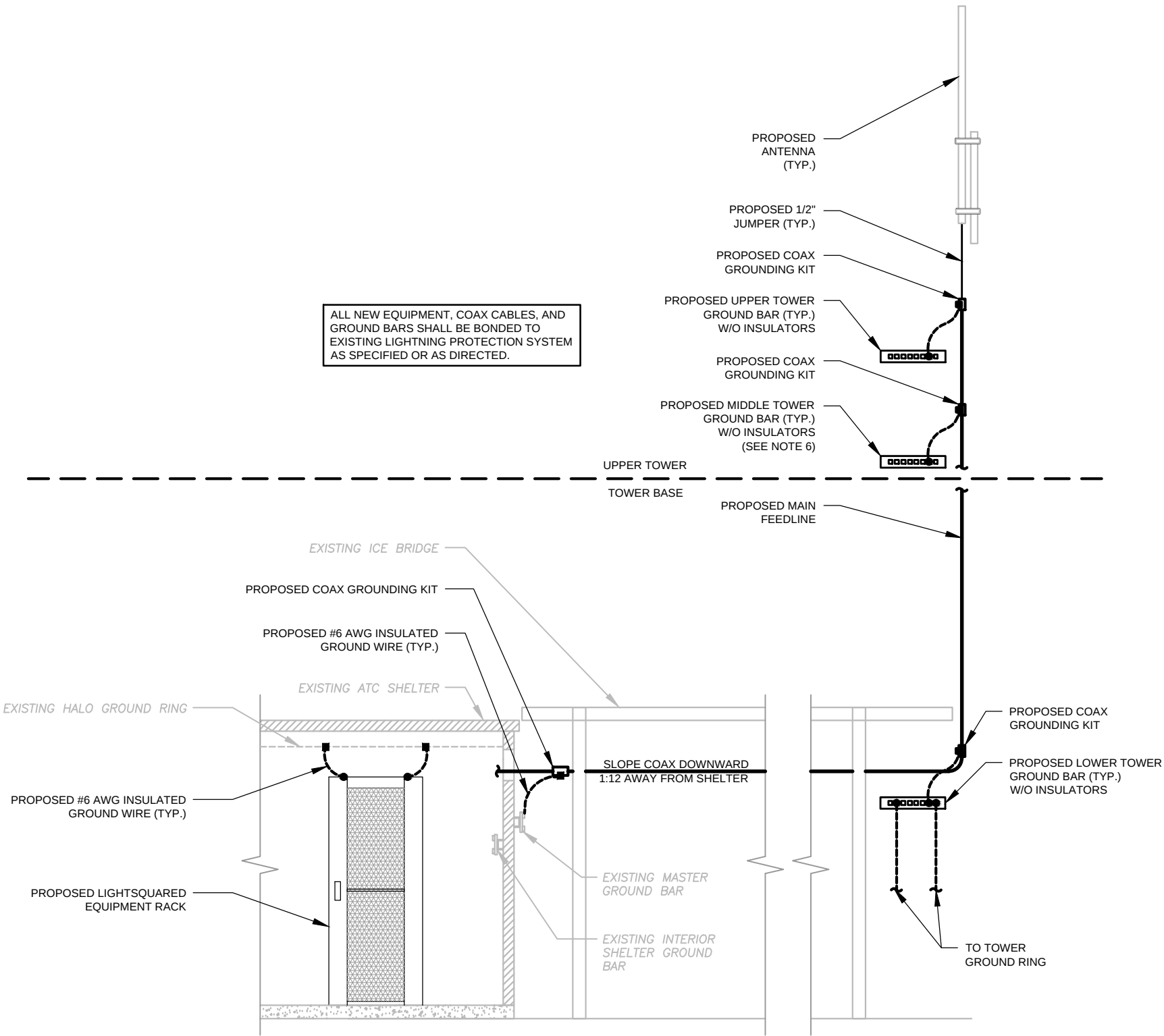
SHEET NUMBER: E-1	REVISION NUMBER: 0
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GROUNDING NOTES:

1. ALL EQUIPMENT ENCLOSURES, DEVICES AND CONDUITS SHALL BE GROUNDED TO CONFORM WITH THE LATEST REQUIREMENTS OF THE NEC BY THE INSTALLATION OF A SEPARATE, GREEN, INSULATED GROUND CONDUCTOR FOR ALL FEEDER AND BRANCH CIRCUITS. GROUND CONDUCTORS SHALL BE OF THE SIZE INDICATED ON THE DRAWINGS. GROUND CONDUCTORS SHALL BE CONTINUOUS IN LENGTH AND SHALL BE BONDED TO EACH ENCLOSURE THEY PASS THROUGH. CONDUIT SHALL NOT BE USED AS A GROUNDING CIRCUIT.

LIGHTNING AND SURGE PROTECTION:

1. GROUNDING CONDUCTORS SHALL:
- A. BE #2 AWG SOLID BARE TINNED COPPER (SBTC) FOR ALL GROUNDING SYSTEM WIRE UNLESS OTHERWISE NOTED, OR OTHERWISE REQUIRED BY CODE.
 - B. BE MINIMUM 8" BEND RADIUS. KEEP NUMBER OF BENDS TO A MINIMUM.
 - C. AVOID LONG BONDING CONNECTION RUNS. MAKE DIRECT AS POSSIBLE.
 - D. NOT HAVE ANY U-SHAPED RUNS.
 - E. BE IN NON-METALLIC CONDUIT ONLY, IF IN CONDUIT.
 - F. BE PLACED THROUGH NON-METALLIC SLEEVES IN FLOORS, WALLS, CEILINGS, ETC.
 - G. PROTECTED IN NON-METALLIC CONDUIT WHERE EXPOSED ABOVE GRADE.
2. INSTALL ALL GROUNDING RINGS AND RADIALS WITH CONDUCTIVE CEMENT, SANKOSHA AS DISTRIBUTED BY ELECTRIC MOTION COMPANY, INC., WINSTED, CT 06098, OR AS SPECIFICALLY INDICATED. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
3. GROUND RINGS SHALL BE:
- A. MINIMUM 30" BELOW GRADE, OR BELOW FROST LINE WHICHEVER IS DEEPER.
 - B. MINIMUM 2' FROM FOUNDATIONS, FOOTINGS, OTHER GROUNDING SYSTEMS AND ALL CONDUCTIVE OBJECTS.
 - C. WITH MINIMUM 8" BEND RADII.
 - D. WITH ALL CONNECTIONS IN CONTACT WITH EARTH, BONDED BY EXOTHERMIC WELDING.
 - E. BONDED TO A SINGLE POINT GROUND (SPG) WITH A SINGLE WIRE AS INDICATED ON DRAWINGS.
4. GROUND RODS SHALL BE:
- A. MINIMUM 5/8" DIAMETER.
 - B. MINIMUM 10' LONG.
 - C. COPPER-CLAD GALVANIZED STEEL OR STAINLESS STEEL.
 - D. PLACED IN UNDISTURBED SOIL AND BELOW THE FROST LINE.
 - E. INSTALLED WITH MINIMUM SEPARATION DISTANCE OF TWICE THE DEPTH OF THE ROD(S), OR AS INDICATED ON DRAWINGS.
 - F. MINIMUM TWO (2) RODS ON THE TOWER RING OR ONE (1) PER LEG WHICHEVER IS LARGER, MINIMUM FOUR (4) RODS ON EVERY EQUIPMENT BUILDING RING WITH ONE AT EACH CORNER OR AS INDICATED, MINIMUM ONE (1) ROD FOR POWER SERVICE GROUNDING ELECTRODE, AND MINIMUM ONE (1) ROD AT END OF EACH RADIAL.
5. CONDUCTIVE OBJECTS, SUCH AS FENCES, SHALL BE BONDED TO THE GROUNDING SYSTEM IF WITHIN 20' OF THE TOWER GROUNDING SYSTEM, OR 5' OF ANY OTHER GROUNDED COMPONENT.
6. INSTALL ADDITIONAL TOWER GROUND BAR SO AS NOT TO EXCEED 300' BETWEEN GROUND BARS.



GROUNDING PLAN LEGEND:			
-----	GROUND WIRE		COPPER GROUND ROD
—	GROUND BAR		TEST WELL
■	EXOTHERMIC WELD		
●	MECHANICAL CONNECTION		

1 TYPICAL GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE



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SHEET TITLE:

GROUNDING LAYOUT

SHEET NUMBER:

E-2

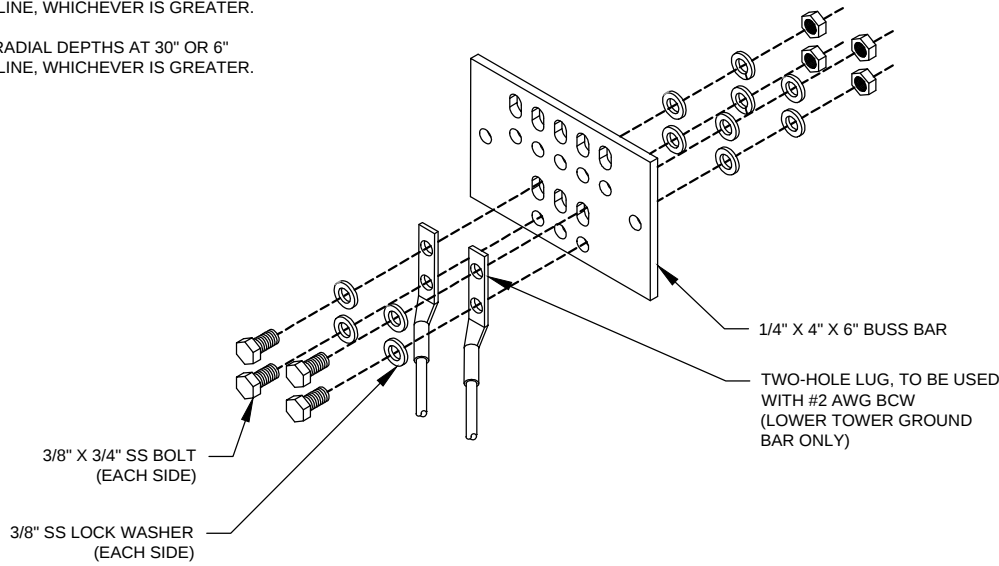
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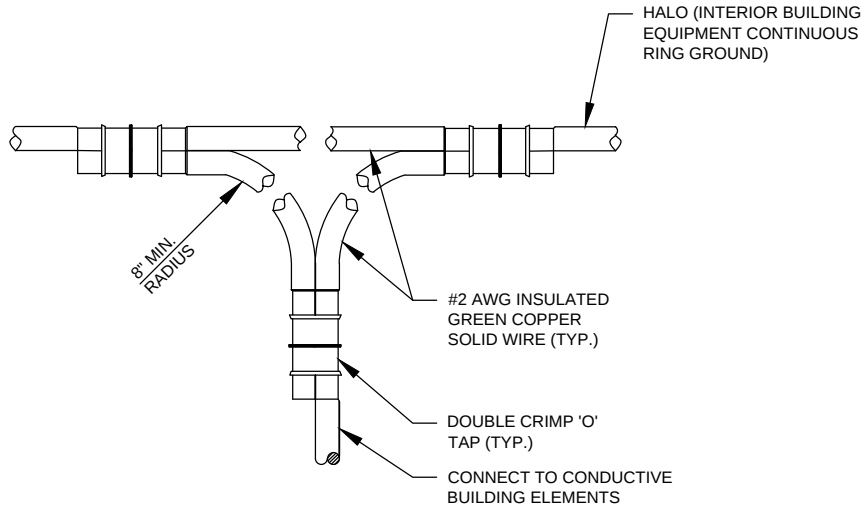
1. SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS.
2. COORDINATE UTILITY, LOCATE BEFORE DIGGING.
3. CONDUIT TRENCHING DEPTHS AT 36" OR 6" BELOW FROST LINE, WHICHEVER IS GREATER.
4. ALL RING AND RADIAL DEPTHS AT 30" OR 6" BELOW FROST LINE, WHICHEVER IS GREATER.



1 TOWER GROUND BAR DETAIL
SCALE: NOT TO SCALE

GROUND BAR NOTES:

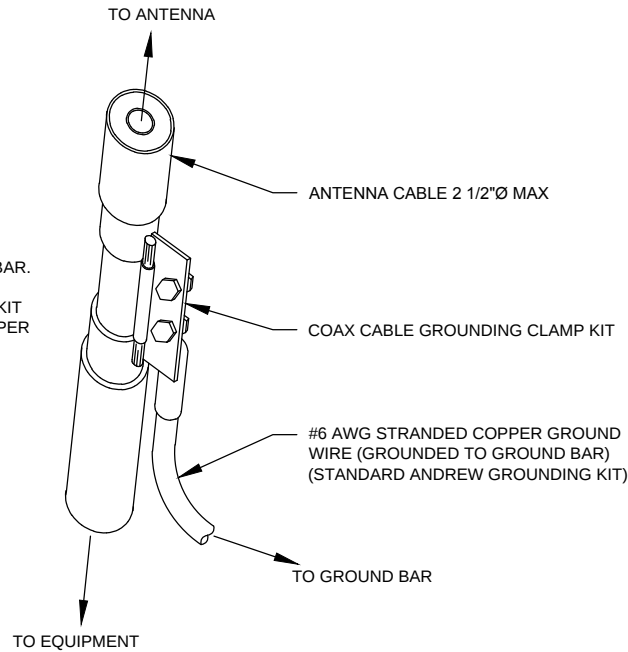
1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.



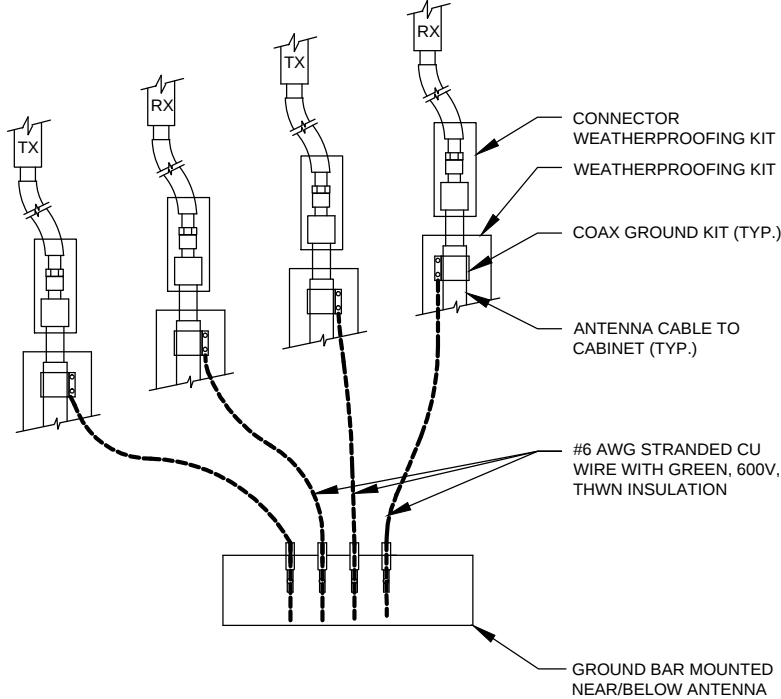
2 HALO CONNECTION DETAIL
SCALE: NOT TO SCALE

GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.



3 CABLE GROUND KIT CONNECTION DETAIL
SCALE: NOT TO SCALE



4 TYPICAL GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

NOTES:

1. DO NOT INSTALL COAX CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR
2. THE LOWER TOWER GROUND BAR SHALL BE BONDED TO TOWER GROUND RING USING TWO (2) #2 AWG SBTC CONDUCTORS WHICH SHALL CURVE IN OPPOSITE DIRECTIONS. BONDS TO TOWER GROUND RING SHALL BE MADE ON OPPOSITE SIDES OF GROUND ROD AS SHOWN.

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REV.	DESCRIPTION	BY	DATE
△	FOR CONSTRUCTION	JMA	02/13/15
△			
△			
△			
△			

ATC SITE NUMBER:

88008

ATC SITE NAME:

BETHANY CT

SITE ADDRESS:

93 OLD AMITY RD

BETHANY, CT 06524



SEAL:



Feb 13 2015 1:15 PM

APPROVED BY:	KRF
DATE DRAWN:	02/13/15
ATC JOB NO:	610511A3

SHEET TITLE:

STANDARD GROUNDING
DETAILS

SHEET NUMBER:

E-3

REVISION NUMBER:

0



Structural Analysis Report

Structure : 337.5 ft Self Supported Tower
ATC Site Name : Bethany CT, CT
ATC Site Number : 88008
Engineering Number : 61051124
Proposed Carrier : Lightsquared LP
Carrier Site Name : Conn 3
Carrier Site Number : TMUSCTCONN0003
Site Location : 93 Old Amity Road
Bethany, CT 06524-3400
41.404758,-72.999983
County : New Haven
Date : January 26, 2015
Max Usage : 100%
Result : Pass

Prepared By:
Michael B. Davenport
Structural Engineer III

Reviewed by:
William Garrett, PE
Chief Engineer



Jan 26 2015 4:41 PM



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 337.5 ft self supported tower to reflect the change in loading by Lightsquared LP.

Supporting Documents

Tower Drawings	CSEI Analysis (ATC Engineering #73115244 dated November 18, 2002)
Foundation Drawing	ETS #120302.01, dated June 18, 2012
Geotechnical Report	Geotel Engineering Report #E12-221, dated June 5, 2012
Modifications	ATC Engineering #44269933, dated January 6, 2010 ATC Engineering #49564732, dated July 5, 2012

Analysis

The tower was analyzed using Power Line Systems, Inc. tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/EIA-222.

Basic Wind Speed:	85 mph (Fastest Mile) / 105 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	74 mph (Fastest Mile)w/ 1/2" radial ice concurrent
Code:	ANSI/TIA/EIA-222-F / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elevation¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
338.0	344.0	1	Rohde & Schwarz ADD090	Platform w/ Handrails	(3) 7/8" Coax	US Treasury
310.0	320.0	1	Sinclair SC281-L	Sector Frame	(2) 7/8" Coax	
	315.0	1	Sinclair SC381-HL			
275.0	285.0	1	Sinclair SC281-L	Sector Frame	(1) 7/8" Coax	
250.0	250.0	12	Decibel DB844H90E-XY	Sector Frame	(12) 1 5/8" Coax	Sprint Nextel
240.0	240.0	3	Alcatel-Lucent 800MHz 2X50W RRH w/ Filter	Sector Frame	(4) 1 1/4" Hybriflex	
		3	Alcatel-Lucent 1900MHz 4X45 RRH			
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	RFS RFS APXV9TM14-ALU-I20			
		3	RFS APXVSPP18-C-A20			
220.0	220.0	6	RCU	Sector Frame	(12) 1 5/8" Coax (1) 0.32" Coax (1) 3/8" Coax	T-Mobile
		6	Remec S20057A1			
		3	RFS APX16PV-16PVL-E-00			
194.0	204.0	1	Andrew DB616E-BC	Side Arm	(1) 1 1/4" Coax	US Treasury
180.0	180.0	6	RFS FD9R6004/1C-3L	Sector Frame	(12) 1 5/8" Coax	Verizon
		3	Rymsa MGD3-800TX			
		6	Andrew DB844H90E-XY			
		3	Powerwave P65-16-XL-2			
165.0	165.0	3	Powerwave LGP21901	Sector Frame	(12) 1 5/8" Coax (2) 0.78" 8 AWG 6 (1) 3" conduit (1) 0.39" Cable	AT&T Mobility
		3	Raycap DC2-48-60-0-9E			
		6	Powerwave LGP21401			
		1	Raycap FC12-PC6-10E			
		6	Ericsson RRUS 11 (Band 12)			
		6	Powerwave 7770.00			
		1	KMW AM-X-CD-16-65-00T-RET			
		2	Andrew SBNH-1D6565C			
100.0	100.0	3	RFS APXV18-206517S-C	Leg	(6) 1 5/8" Coax	Metro PCS
48.0	48.0	1	PCTEL GPS-TMG-HR-26N	Stand-Off	(1) 1/2" Coax	Sprint Nextel
20.0	20.0	1	Nortel NTGB01MA	Stand-Off	(1) 7/8" Coax	Metro PCS

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						

**Proposed Equipment**

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
319.0	326.0	1	Kathrein 750 10074	Stand-Off	(1) 1 5/8" Coax	Lightsquared LP

¹Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax on any tower face.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	74%	Pass
Diagonals	99%	Pass
Horizontals	100%	Pass
Truss Diagonals	99%	Pass
Truss Horizontals	91%	Pass
Anchor Bolts	77%	Pass

Foundations

Reaction Component	Analysis Reactions
Uplift (Kips)	350.5
Axial (Kips)	472.2
Shear (Kips)	73.5

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

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Standard Conditions

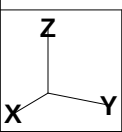
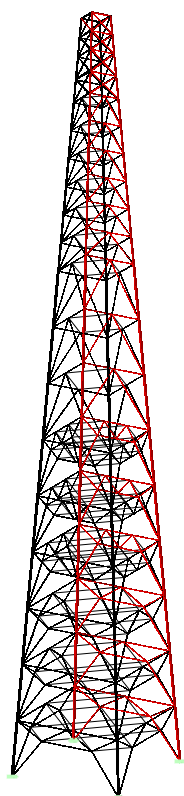
All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Project Name : 88008 - Bethany CT, CT
Project Notes: 337.5 ATAT Tag Spilf Supported Tower
Project File : C:\Users\michael.davenport\Desktop\88008-Lightsquared-01262015.tow
Date run : 1:40:57 PM Monday, January 26, 2015
by : Tower Version 12.50
Licensed to : American Tower Corp.

Successfully performed nonlinear analysis

The model has 0 warnings.

Member check option: TIA/EIA 222-F
Connection rupture check: Not Checked
Crossing diagonal check: Fixed
Included angle check: None
Climbing load check: None
Redundant members checked with: Actual Force
Loads from file: c:\users\michael.davenport\Desktop\88008-lightsquared-01262015.eia

*** Analysis Results:

Maximum element usage is 100.45% For Angle "H 5P" in load case "W -90" NG

Summary of Joint Support Reactions For All Load Cases:

Load Case	Joint Label	Long. (kips)	Tran. (kips)	Vert. (kips)	Shear Force (kips)	Tran. Force (ft-k)	Long. Bending (ft-k)	Vert. Bending (ft-k)	Found. Usage %
W 0	OP	-45.61	-24.51	-321.30	51.78	-0.46	-4.77	4.79	-2.58 0.00
W 0	OX	-44.44	25.19	-317.51	51.09	0.23	-4.58	4.58	2.58 0.00
W 0	OXY	-34.42	-14.41	199.99	37.32	0.55	-5.19	5.22	2.35 0.00
W 0	OY	-35.44	13.73	201.25	38.00	-0.38	-5.39	5.40	-2.33 0.00
W 180	OP	35.44	13.58	199.22	37.95	-0.38	5.43	5.44	2.34 0.00
W 180	OX	34.42	-14.25	198.04	37.26	0.55	5.23	5.26	-2.35 0.00
W 180	OXY	44.44	25.04	-315.55	51.01	0.23	4.62	4.62	-2.59 0.00
W 180	OY	45.61	-24.36	-319.27	51.71	-0.46	4.81	4.84	2.59 0.00
W 45	OP	-52.05	-21.73	-57.54	24.34	3.57	-4.24	5.54	-3.88 0.00
W 45	OX	-21.90	-11.08	-57.99	24.54	4.28	-3.59	5.59	3.88 0.00
W 45	OXY	-42.31	-42.19	349.92	59.75	4.40	-4.43	6.24	-0.00 0.00
W 45	OY	-10.28	21.73	-57.54	24.34	3.57	-4.24	5.54	-3.88 0.00
W 45	OP	-22.70	11.57	-61.06	25.53	-4.45	-3.72	5.80	-3.88 0.00
W 45	OX	-51.19	52.69	-469.17	73.46	-3.86	-3.51	5.22	-0.00 0.00
W 45	OXY	-10.28	21.26	-57.79	23.61	-3.45	-4.10	5.36	3.89 0.00
W 45	OY	-42.90	41.70	350.45	59.89	-4.20	4.56	6.26	0.02 0.00
W 90	OP	-24.43	-45.78	-321.60	51.89	4.81	0.48	4.83	2.59 0.00
W 90	OX	13.64	-35.55	200.83	38.08	5.42	0.37	5.43	2.33 0.00
W 90	OXY	-14.43	34.31	199.09	37.22	5.17	-0.56	5.20	2.35 0.00
W 90	OY	25.23	-44.27	-316.47	50.96	4.56	-0.20	4.56	-2.58 0.00
W 90	OP	13.55	35.55	199.52	38.05	-5.44	0.37	5.46	-2.34 0.00
W 90	OX	-24.33	45.78	-320.39	51.84	-4.83	0.48	4.80	-2.59 0.00
W 90	OXY	25.13	-27.15	-24.50	50.91	-4.58	0.20	4.59	2.59 0.00
W 90	OY	-14.34	34.31	198.46	37.18	-5.20	-0.56	5.23	2.35 0.00
W 0 Ice	OP	-40.60	-22.31	-304.78	46.40	-1.74	-2.76	3.26	-2.20 0.00
W 0 Ice	OX	-39.50	22.96	-300.54	45.69	2.80	2.58	2.90	2.19 0.00
W 0 Ice	OXY	-29.38	-12.19	155.65	31.81	1.81	-5.79	6.07	2.03 0.00
W 0 Ice	OY	-30.32	11.54	156.33	32.44	-1.66	-5.98	6.21	-2.01 0.00
W 180 Ice	OP	30.32	11.33	153.53	32.36	-1.66	6.04	6.26	2.02 0.00
W 180 Ice	OX	39.50	-22.96	300.54	45.73	1.81	-5.95	6.12	-2.04 0.00
W 180 Ice	OXY	39.50	22.75	-297.83	45.58	1.51	2.63	3.03	-2.20 0.00
W 180 Ice	OY	40.60	-22.09	-301.98	46.29	-1.74	2.82	3.31	2.21 0.00
W 45 Ice	OP	-47.50	-47.67	-466.03	67.30	1.95	1.91	2.73	0.00 0.00
W 45 Ice	OX	-20.09	-9.33	-72.08	22.15	5.13	-1.86	5.46	3.45 0.00
W 45 Ice	OXY	-37.54	-37.44	295.86	53.02	5.24	-5.26	7.42	-0.00 0.00
W 45 Ice	OY	-9.23	-19.92	-92.10	21.96	1.84	5.09	5.41	-3.45 0.00
W 45 Ice	OP	-20.97	9.80	-75.62	23.15	-5.31	-1.99	5.67	-3.45 0.00
W 45 Ice	OX	-46.63	48.13	-442.49	67.01	-2.13	-1.77	2.77	-0.01 0.00
W 45 Ice	OXY	-8.61	19.46	-71.07	21.28	-1.74	-4.95	5.25	3.46 0.00
W 45 Ice	OY	-38.16	36.90	395.83	53.14	5.24	5.32	7.45	0.02 0.00
W 90 Ice	OP	-22.21	-40.85	-305.08	46.50	2.80	1.77	3.31	2.20 0.00
W 90 Ice	OX	11.45	-30.42	155.64	32.50	6.01	1.65	6.24	2.01 0.00
W 90 Ice	OXY	-12.21	29.28	-155.35	31.73	-5.78	1.82	6.06	2.03 0.00
W 90 Ice	OY	22.98	-39.33	-299.27	45.55	2.56	-1.47	2.96	-2.19 0.00
W 90 Ice	OP	11.31	30.42	153.82	32.45	-6.05	1.65	6.27	-2.02 0.00
W 90 Ice	OX	-22.07	40.85	-303.25	46.44	-2.84	1.77	3.34	-2.21 0.00
W 90 Ice	OXY	22.84	39.33	297.54	45.48	-2.60	-1.48	2.90	2.20 0.00
W 90 Ice	OY	-12.07	29.28	153.63	31.67	-5.81	-1.82	6.09	2.04 0.00

Summary of Joint Support Reactions For All Load Cases in Direction of Leg:

Load Case	Support	Origin	Joint	Joint	Member	Leg Dir.	Force In	Residual Shear	Residual Shear	Residual Shear	Residual Shear	Total	Total	Total
							Perpendicular	Horizontal	Horizontal	Horizontal	Horizontal	Long.	Tran.	Vert.
							(kips)	(kips)	To Leg - Res. (kips)	To Leg - Long. (kips)	To Leg - Tran. (kips)	Force (kips)	Force (kips)	Force (kips)
							(kips)							
W 0	OP	1P	L 1P	324.443			25.470	25.538	25.205	4.195	-45.61	-24.51	-321.30	
W 0	OX	1X	L 1X	25.639			24.718	24.788	24.273	5.027	-44.44	25.19	-317.51	
W 0	OXY	1XY	L 1XY	-202.282			21.735	21.785	21.718	1.708	-34.42	-14.41	199.99	
W 0	OY	1Y	L 1Y	-203.551			22.624	22.673	22.654	-0.947	-35.44	13.73	201.25	
W 180	OP	1P	L 1P	-201.519			22.753	22.803	-22.784	-0.923	35.44	13.58	199.22	
W 180	OX	1X	L 1X	-200.325			21.856	21.906	-21.842	1.677	34.42	-14.26	198.04	
W 180	OXY	1XY	L 1XY	318.681			24.832	24.902	-24.395	-4.997	44.44	25.04	-315.55	
W 180	OY	1Y	L 1Y	322.412			25.594	25.662	-25.335	4.081	45.61	-24.36	-319.27	
W 45	OP	1P	L 1P	476.925			31.179	31.305	22.052	22.219	-52.05	-22.73	-472.22	
W 45	OX	1X	L 1X	58.447			23.448	18.218	14.762	-21.90	-11.08	-57.99		
W 45	OXY	1XY	L 1XY	-353.864			28.201	20.314	20.079	19.964	-42.31	-42.19	349.92	
W 45	OY	1Y	L 1Y	57.716			23.252	23.253	14.001	18.097	-10.90	-21.73	-57.26	
W 45	OP	1P	L 1P	513.919			24.396	24.882	-15.446	-22.70	11.57	61.06		
W 45	OX	1X	L 1X	473.858			31.200	31.325	21.386	-22.889	-51.19	52.69	-469.17	
W 45	OXY	1XY	L 1XY	58.253			22.446	22.447	13.948	-17.587	-10.28	21.26	-57.79	
W 45	OY	1Y	L 1Y	-35.406			28.421	20.731	19.442	42.90	41.70	350.45		
W 90	OP	1P	L 1P	324.755			25.599	25.666	3.999	25.352	-24.43	-45.78	-321.60	
W 90	OX	1X	L 1X	-203.133			22.764	22.813	-0.987	22.796	13.64	-35.55	200.83	
W 90	OXY	1XY	L 1XY	-201.971			21.644	21.694	1.758	21.623	-14.44	34.31	199.09	
W 90	OY	1Y	L 1Y	310.597			24.639	24.709	-5.123	24.172	25.23	-44.27	-316.47	
W 90	OP	1P	L 1P	-201.831			22.847	22.896	-0.873	-22.880	13.55	35.55	199.52	
W 90	OX	1X	L 1X	323.455			25.679	25.746	3.985	-25.436	-24.33	45.78	-320.39	
W 90	OXY	1XY	L 1XY	318.370			24.710	24.779	-5.103	-24.248	25.13	44.27	-315.24	
W 90	OY	1Y	L 1Y	-200.744			21.719	21.769	1.737	-21.700	-14.34	34.31	198.46	
W 0 Ice	OP	1P	L 1P	307.547			21.471	21.526	21.323	2.947	-40.60	-22.31	-304.78	
W 0 Ice	OX	1X	L 1X	303.207			20.719	20.776	20.439	-3.869	-39.50	22.96	-300.54	
W 0 Ice	OXY	1XY	L 1XY	-157.653			19.582	19.495	-2.307	-29.38	-12.19	155.65		
W 0 Ice	OY	1Y	L 1Y	-158.349			20.403	20.387	-1.610	-30.32	11.54	156.33		
W 180 Ice	OP	1P	L 1P	-155.546			20.579	20.626	-20.566	-1.574	30.32	11.33	153.53	
W 180 Ice	OX	1X	L 1X	-154.943			19.748	19.707	2.265	-29.38	-11.98	152.94		
W 180 Ice	OXY	1XY	L 1XY	300.574			20.879	20.936	-20.583	-3.828	39.50	22.75	-297.83	
W 180 Ice	OY	1Y	L 1Y	304.745			21.642	21.697	-21.591	-2.911	40.60	-22.09	-301.98	
W 45 Ice	OP	1P	L 1P	450.277			27.233	27.284	19.174	19.342	-47.50	-47.67	-446.03	
W 45 Ice	OX	1X	L 1X	72.470			20.836	20.836	15.512	13.911	-20.09	-9.33	-72.08	
W 45 Ice	OXY	1XY	L 1XY	-299.414			26.341	26.447	18.750	18.651	-37.54	-37.44	295.86	
W 45 Ice	OY	1Y	L 1Y	71.493			20.647	20.648	13.750	15.403	-9.23	-19.92	-92.10	
W 45 Ice	OP	1P	L 1P	76.819			21.784	21.784	16.604	-14.604	-20.97	9.80	-75.62	
W 45 Ice	OX	1X	L 1X	446.714			27.165	27.274	18.519	-20.023	-46.63	48.13	-442.49	
W 45 Ice	OXY	1XY	L 1XY	71.476			19.894	19.894	13.129	-14.947	-8.61	19.46	-71.07	
W 45 Ice	OY	1Y	L 1Y	-299.402			26.463	26.463	19.370	-18.185	-38.16	36.90	395.83	
W 90 Ice	OP	1P	L 1P	307.841			21.607	21.662	2.835	21.475	-22.21	-40.85	-305.08	
W 90 Ice	OX	1X	L 1X	-157.666			20.542	20.589	-1.560	-20.530	11.45	-30.42	155.64	
W 90 Ice	OXY	1XY	L 1XY	-157.360			19.507	19.567	2.343	19.414	-12.21	-29.28	155.36	
W 90 Ice	OY	1Y	L 1Y	302.616			20.649	20.706	-3.968	20.322	22.08	-38.33	-299.27	
W 90 Ice	OP	1P	L 1P	-155.840			20.656	20.656	-1.538	-20.647	11.31	30.42	153.82	
W 90 Ice	OX	1X	L 1X	306.017			21.719	21.771	2.813	-21.591	-22.07	40.85	-303.25	
W 90 Ice	OXY	1XY	L 1XY	300.281			20.751	20.751	-3.940	-20.431	22.84	39.33	297.54	
W 90 Ice	OY	1Y	L 1Y	-155.627			19.612	19.661	-2.815	-19.524	-12.07	29.28	153.63	

Overturning Moment Summary For All Load Cases:

Load Case	Transverse Moment (ft-k)	Longitudinal Moment (ft-k)	Resultant Moment (ft-k)
W 0	65.747	26976.167	26976.248
W 180	65.806	-26769.417	26769.498
W 45	21305.443	21343.320	30157.241
W -45	-21174.210	21343.633	30064.894
W 90	26938.339	103.643	26938.538
W -90	-26807.292	103.690	26807.493
W 0 Ice	92.423	23792.485	23792.665
W 180 Ice	92.501	-23506.687	23506.869
W 45 Ice	19217.224	19267.892	27213.110
W -45 Ice	-19032.597	19268.178	27083.250
W 90 Ice	23741.864	143.113	23742.295
W -90 Ice	-23557.370	143.177	23557.805

310.2-320.3	320.334	310.167	8	16	11.18	12.47	120.24	1.1970	1.1970	1.436
300.0-310.2	310.167	300.000	12	16	11.18	12.47	120.24	1.1970	1.1970	1.436
287.5-300.0	300.000	287.500	16	24	13.76	15.35	181.97	1.2010	1.2010	1.442
275.0-287.5	287.500	275.000	16	24	15.35	16.94	201.82	1.2080	1.2080	1.449
262.5-275.0	275.000	262.500	16	24	16.94	18.53	221.67	1.2140	1.2140	1.457
250.0-262.5	262.500	250.000	16	24	18.53	20.12	241.52	1.2200	1.2200	1.464
237.5-250.0	250.000	237.500	16	24	20.12	21.70	261.37	1.2260	1.2260	1.471
225.0-237.5	237.500	225.000	16	24	21.70	23.29	281.22	1.2320	1.2320	1.478
200.0-225.0	225.000	200.000	16	24	23.29	24.87	301.07	1.2380	1.2380	1.485
175.0-200.0	200.000	175.000	16	24	24.87	26.46	320.92	1.2440	1.2440	1.492
150.0-175.0	175.000	150.000	20	32	29.64	32.82	388.79	1.2880	1.2880	1.545
125.0-150.0	150.000	125.000	36	76	32.82	36.00	466.19	1.2930	1.2930	1.476
100.0-125.0	125.000	100.000	36	76	36.00	39.17	543.58	1.2770	1.2770	1.473
75.0-100.0	100.000	75.000	32	68	39.17	42.35	620.97	1.2320	1.2320	1.479
50.0-75.0	75.000	50.000	24	52	42.35	45.52	698.36	1.3380	1.3380	1.606
25.0-50.0	50.000	25.000	24	52	45.52	48.70	775.75	1.3590	1.3590	1.590
0.000-25.0	25.000	0.000	20	40	48.70	51.88	853.14	1.3210	1.3210	1.585

*** Overall summary for all load cases - Usage = Maximum Stress / Allowable Stress
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each load case.
The Group Summary reports on the member and load case that resulted in maximum usage
which may not necessarily be the same as that which produces maximum force.

Group Summary (Compression Portion):

Group Label	Group Desc.	Group Type	Angle Size	Steel Strength	Max Usage	Max Control	Comp. Control	Comp. Force	Comp. Control	L/R Capacity	Comp. Connect.	Comp. Connect.	RLX	RLY	RLZ	L/R	KL/R	Length	Curve	No. of Bolts	No. of Comp.
				(ksi)	%	%	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(kips)	(ft)				
Leg S1	L 8" x 8" x 1.125"	SAE	8X8X1.13	36.0	73.51	Comp 73.51	L 1P	-499.511	W	-45	417.820	0.000	0.000	0.281	0.281	0.281	54.29	54.29	25.101	1	0
Leg S2	L 8" x 8" x 1.125"	SAE	8X8X1.13	36.0	71.33	Comp 71.33	L 2P	-366.260	W	-45	385.120	0.000	0.000	0.281	0.281	0.281	54.29	54.29	25.101	1	0
Leg S3	L 8" x 8" x 1.125"	SAE	8X8X1.13	36.0	68.38	Comp 68.38	L 3P	-321.081	W	-45	352.980	0.000	0.000	0.281	0.281	0.281	54.29	54.29	25.101	1	0
Leg S4	L 8" x 8" x 1.125"	SAE	8X8X1.13	36.0	67.49	Comp 67.49	L 4P	-270.076	W	-45	300.553	0.000	0.000	0.281	0.281	0.281	54.29	54.29	25.101	1	0
Leg S5	L 8" x 8" x 1"	SAE	8X8X1	36.0	63.17	Comp 63.17	L 5P	-226.973	W	-45	269.473	0.000	0.000	0.281	0.281	0.281	54.29	54.29	25.101	1	0
Leg S6	L 8" x 8" x 1"	SAE	8X8X1	36.0	51.10	Comp 51.10	L 6P	-183.579	W	-45	269.473	0.000	0.000	0.281	0.281	0.281	54.29	54.29	25.101	1	0
Leg S7	L 8" x 8" x 0.875"	SAE	8X8X0.88	36.0	57.00	Comp 57.00	L 7P	-161.387	W	-45	225.502	0.000	0.000	0.333	0.333	0.333	63.54	63.54	25.101	1	0
Leg S8	L 8" x 8" x 0.875"	SAE	8X8X0.75	36.0	52.15	Comp 52.15	L 8P	-135.910	W	-45	195.450	0.000	0.000	0.333	0.333	0.333	63.54	63.54	25.101	1	0
Leg S9	L 8" x 8" x 0.75"	SAE	8X8X0.75	36.0	39.57	Comp 39.57	L 9P	-103.115	W	-45	195.450	0.000	0.000	0.333	0.333	0.333	63.54	63.54	25.101	1	0
Leg S10	L 6" x 6" x 0.875"	SAE	6X6X0.88	36.0	39.61	Comp 39.61	L 10P	-87.378	W	-45	165.443	0.000	0.000	0.500	0.500	0.500	64.36	64.36	12.550	1	0
Leg S11	L 6" x 6" x 0.75"	SAE	6X6X0.75	36.0	32.34	Comp 32.34	L 12P	-61.871	W	-45	143.509	0.000	0.000	0.500	0.500	0.500	64.36	64.36	12.550	1	0
Leg S12	L 6" x 6" x 0.5625"	SAE	6X6X0.56	36.0	34.48	Comp 34.48	L 13P	-50.428	W	-45	109.680	0.000	0.000	0.500	0.500	0.500	63.82	63.82	12.550	1	0
Leg S13	L 6" x 6" x 0.5625"	SAE	6X6X0.56	36.0	26.86	Comp 26.86	L 14P	-39.281	W	-45	109.680	0.000	0.000	0.500	0.500	0.500	63.82	63.82	12.550	1	0
Leg S14	L 6" x 6" x 0.4375"	SAE	6X6X0.44	36.0	24.35	Comp 24.35	L 15P	-28.180	W	-45	86.579	0.000	0.000	0.500	0.500	0.500	63.28	63.28	12.550	1	0
Leg S15	L 5" x 5" x 0.4375"	SAE	5X5X0.44	36.0	23.22	Comp 23.22	L 16P	-22.290	W	-45	71.999	0.000	0.000	0.500	0.500	0.500	62.12	62.12	10.208	1	0
Leg S16	L 5" x 5" x 0.4375"	SAE	5X5X0.44	36.0	14.83	Comp 14.83	L 17P	-14.232	W	-45	71.999	0.000	0.000	0.500	0.500	0.500	62.12	62.12	10.208	1	0
Leg S17	L 5" x 5" x 0.3125"	SAE	5X5X0.31	36.0	18.26	Comp 18.26	L 18P	-7.5130	W	-45	54.896	0.000	0.000	0.500	0.500	0.500	52.02	52.02	8.618	1	0
Leg S18	L 5" x 5" x 0.3125"	SAE	5X5X0.31	36.0	5.05	Comp 5.05	L 19P	-3.6950	W	-45	54.896	0.000	0.000	0.500	0.500	0.500	52.02	52.02	8.618	1	0
Diag S1	B/B L3"x4"x0.375"	DAS	4X3X0.38	36.0	54.25	Comp 54.25	D 2X	-45.220	W	-90	62.516	0.000	0.000	0.333	0.333	0.333	103.12	103.12	22.664	1	0
Diag S2	B/B L3"x4"x0.25"	DAS	4X3X0.25	36.0	76.19	Comp 76.19	D 4X	-44.972	W	-90	44.268	0.000	0.000	0.333	0.333	0.333	99.05	99.05	22.990	1	0
Diag S3	B/B L3"x4"x0.25"	DAS	4X3X0.25	36.0	73.48	Comp 73.48	D 6X	-44.208	W	-90	45.126	0.000	0.000	0.333	0.333	0.333	97.03	97.03	21.736	1	0
Diag S4	B/B L3"x3"x0.25"	DAS	3.5X3X0.25	36.0	88.50	Comp 88.50	D 8X	-47.399	W	-90	40.170	0.000	0.000	0.333	0.333	0.333	101.13	101.13	20.858	1	0
Diag S5	B/B L3"x3"x0.25"	DAS	3.5X3X0.25	36.0	84.58	Comp 84.58	D 10X	-46.112	W	-90	40.889	0.000	0.000	0.333	0.333	0.333	99.32	99.32	20.484	1	0
Diag S6	B/B L2.5"x3"x0.25"	DAS	3.5X2.5X0.25	36.0	99.16	Comp 99.16	D 12X	-44.671	W	-90	33.788	0.000	0.000	0.333	0.333	0.333	109.55	109.55	20.294	1	0
Diag S7	B/B L3"x3"x0.375"	DAS	3.5X3X0.38	36.0	68.13	Comp 68.13	D 13X	-39.106	W	-90	32.400	0.000	0.000	0.300	0.300	0.300	152.42	152.42	19.947	6	0
Diag S8	B/B L2.5"x3"x0.25"	DAS	3.5X2.5X0.25	36.0	87.15	Comp 87.15	D 16Y	-25.087	W	-180	21.522	0.000	0.000	0.300	0.300	0.300	144.53	144.53	19.207	6	0
Diag S9	B/B L2.5"x2"x0.25"	DAS	3.5X2.5X0.25	36.0	77.52	Comp 77.52	D 18Y	-23.045	W	-180	22.297	0.000	0.000	0.300	0.300	0.300	144.53	144.53	19.207	6	0
Diag S10	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	64.05	Comp 64.05	D 20Y	-13.091	W	-180	15.329	0.000	0.000	0.500	0.500	0.500	172.47	172.47	17.183	6	0
Diag S11	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	50.67	Comp 50.67	D 22Y	-10.819	W	-180	16.814	0.000	0.000	0.500	0.500	0.500	167.12	167.12	14.986	6	0
Diag S12	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	42.50	Comp 42.50	D 24Y	-9.471	W	-180	16.714	0.000	0.000	0.500	0.500	0.500	161.99	161.99	14.864	6	0
Diag S13	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	63.84	Comp 63.84	D 26Y	-9.342	W	-180	11.115	0.000	0.000	0.500	0.500	0.500	199.94	199.94	15.579	6	0
Diag S14	B/B L2.5"x2"x0.25"	DAS	2.5X2X0.25	36.0	54.88	Comp 54.88	D 28Y	-8.492	W	-180	11.607	0.000	0.000	0.500	0.500	0.500	199.94	199.94	15.512	6	0
Diag S15	B/B L2.5"x2"x0.25"	DAS	2.5X2X0.25	36.0	49.94	Comp 49.94	D 29X	-8.055	W	-90	12.098	0.000	0.000	0.500	0.500	0.500	188.54	188.54	16.154	6	0
Diag S16	L 3" x 3" x 0.25"	SAE	3X3X0.25	36.0	29.91	Comp 29.91	D 32X	-4.964	W	-90	12.446	0.000	0.000	0.520	0.520	0.520	149.34	149.34	16.609	5	0
Diag S17	L 3" x 3" x 0.25"	SAE	3X3X0.25	36.0	21.80	Comp 21.80	D 34X	-3.993	W	-90	13.786	0.000	0.000	0.520	0.520	0.520	144.17	144.17	13.655	5	0
Diag S18	L 3" x 3" x 0.25"	SAE	3X3X0.25	36.0	16.68	Comp 16.68	D 36P	-2.495	W	-90	11.217	0.000	0.000	0.520	0.520	0.520	144.17	144.17	13.678	5	0
Diag S19	L 3" x 3" x 0.25"	SAE	3X3X0.25	36.0	12.53	Comp 12.53	D 38X	-2.068	W	-90	12.380	0.000	0.000	0.520	0.520	0.520	135.43	135.43	10.848	5	0
Horiz 1	B/B L3"x4"x0.25"	DAS	4X3X0.25	36.0	77.33	Comp 77.33	H 1P	-38.767	W	-90	37.543	0.000	0.000	0.500	0.500	0.500	114.14	114.14	24.350	1	0
Horiz 2	B/B L3"x4"x0.25"	DAS	3.5X2.5X0.25	36.0	88.50	Comp 88.50	H 2P	-47.399	W	-90	40.170	0.000	0.000	0.500	0.500	0.500	125.92	125.92	22.762	1	0
Horiz 3	B/B L3"x2"x0.25"	DAS	3.5X2.5X0.25	36.0	100.45	Comp 100.45	H 5P	-34.419	W	-90	25.700	0.000	0.000	0.460	0.460	0.460	123.68	123.68	22.174	6	0
Horiz 4	B/B L3"x2"x0.25"	DAS	3.5X2.5X0.25	36.0	98.87	Comp 98.87	H 7P	-34.894	W	-90	26.470	0.000	0.000	0.460	0.460	0.460	123.68	123.68	22.174	6	0
Horiz 5	B/B L3"x2"x0.25"	DAS	3.5X2.5X0.25	36.0	95.14	Comp 95.14	H 9P	-31.847	W	-90	26.470	0.000	0.000	0.460	0.460	0.460	138.92	138.92	16.940	6	0
Horiz 6	B/B L3"x2"x0.25"	DAS	3.5X2.5X0.25	36.0	95.14	Comp 95.14	H 11P	-28.752	W	-90	22.665	0.000	0.000	0.460	0.460	0.460	138.92	138.92	16.940	6	0
Horiz 7	B/B L3"x2"x0.25"	DAS	3.5X2.5X0.25	36.0	71.17	Comp 71.17	H 14P	-14.268	W	-180	14.974	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.422	6	0
Horiz 8	B/B L3"x2"x0.25"	DAS	3.5X2.5X0.25	36.0	67.49	Comp 67.49	H 16P	-12.999	W	-180	14.974	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.422	6	0
Horiz 9	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	49.74	Comp 49.74	H 18P	-9.445	W	-180	14.243	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.466	6	0
Horiz 10	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	37.96	Comp 37.96	H 20P	-7.958	W	-180	15.724	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.466	6	0
Horiz 11	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	26.89	Comp 26.89	H 22P	-6.255	W	-180	17.447	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.466	6	0
Horiz 12	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	18.60	Comp 18.60	H 24P	-5.422	W	-180	17.447	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.466	6	0
Horiz 13	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	16.60	Comp 16.60	H 26P	-5.422	W	-180	21.868	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.466	6	0
Horiz 14	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	13.72	Comp 13.72	H 28P	-4.489	W	-90	24.547	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.466	6	0
Horiz 15	B/B L2.5"x2"x0.25"	DAS	2.5X2.5X0.25	36.0	9.91	Comp 9.91	H 30P	-3.627	W	-90	28.256	0.000	0.000	0.460	0.460	0.460	199.94	199.94	15.466	6	0
Horiz 16	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	36.0	4.91	Comp 4.91	H 31P	-0.721	W	-180	10.999	0.000	0.000	0.500	0.500	0.500	141.73	141.73	12.472	6	0
Horiz 17	B/B L2.5"x2"x0.25"	DAS	3.5X2.5X0.25	36.0	1.46	Tens 1.01	H 34P	-0.371	W	-90	17.518	0.000	0.000	0.500	0.500	0.500	118.73	118.73	11.181	1	0
Horiz 18	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	36.0	1.98	Tens 0.32	H 36X	-0.059	W	-90	13.067	0.000	0.000	0.500	0.500	0.500					

Horiz 3	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	100.45	Comp	50.17	H 5X	37.996	W -90	56.808	0.000	0.000	0.000	21.174	0	0.000	0	NG
Horiz 4	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	36.0	98.87	Comp	46.10	H 7X	38.233	W -90	62.268	0.000	0.000	0.000	13.957	0	0.000	0	
Horiz 5	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	36.0	98.28	Comp	42.53	H 9X	35.279	W -90	62.268	0.000	0.000	0.000	11.988	0	0.000	0	
Horiz 6	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	95.14	Comp	40.32	H 11P	30.542	W 90	56.808	0.000	0.000	0.000	10.940	0	0.000	0	
Horiz 7	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	71.17	Comp	19.15	H 14P	14.501	W 0	56.808	0.000	0.000	0.000	14.822	0	0.000	0	
Horiz 8	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	48.65	Comp	15.22	H 16P	11.529	W 0	56.808	0.000	0.000	0.000	13.234	0	0.000	0	
Horiz 9	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	49.74	Comp	14.38	H 18Y	9.855	W 180	51.408	0.000	0.000	0.000	11.646	0	0.000	0	
Horiz 10	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	37.96	Comp	12.00	H 20Y	8.227	W 180	51.408	0.000	0.000	0.000	10.852	0	0.000	0	
Horiz 11	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	26.89	Comp	9.56	H 22Y	6.550	W 180	51.408	0.000	0.000	0.000	10.050	0	0.000	0	
Horiz 12	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	20.26	Comp	8.04	H 24Y	5.512	W 180	51.408	0.000	0.000	0.000	9.264	0	0.000	0	
Horiz 13	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	18.60	Comp	8.07	H 26P	5.535	W 0	51.408	0.000	0.000	0.000	8.470	0	0.000	0	
Horiz 14	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	13.72	Comp	6.67	H 27P	4.572	W 90	51.408	0.000	0.000	0.000	7.676	0	0.000	0	
Horiz 15	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	36.0	9.50	Comp	6.06	H 29X	4.153	W -90	51.408	0.000	0.000	0.000	6.882	0	0.000	0	
Horiz 16	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	36.0	4.91	Comp	4.73	H 31P	1.783W	45 Ice	28.296	0.000	0.000	0.000	12.472	0	0.000	0	
Horiz 17	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	36.0	1.46	Tens	1.46	H 33P	1.106	W 0 Ice	56.808	0.000	0.000	0.000	11.181	0	0.000	0	
Horiz 18	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	36.0	1.98	Tens	1.98	H 35P	0.745	W 0 Ice	28.296	0.000	0.000	0.000	10.090	0	0.000	0	
Horiz 19	CBx11.5	CHN	CBx11.5	36.0	1.29	Comp	0.51	H 38P	0.498	W 0	73.008	0.000	0.000	0.000	9.000	0	0.000	0	
LD 1	B/B L3"x2.5"x0.3125"	DAL	3X2.5X0.31	36.0	73.44	Comp	23.94	LD 2Y	22.341W	-45 Ic	69.984	0.000	0.000	0.000	14.066	0	0.000	0	
LD 2	B/B L4"x3"x0.3125"	DAL	4X3X0.31	36.0	87.18	Comp	37.59	LD 3P	45.247	W -90	90.288	0.000	0.000	0.000	14.066	0	0.000	0	
LD 4	B/B L3"x2"x0.25"	DAL	3X2X0.25	36.0	91.22	Comp	27.10	LD 8Y	18.577	W -45	51.408	0.000	0.000	0.000	13.384	0	0.000	0	
LD 5	B/B L4"x3"x0.25"	DAL	4X3X0.25	36.0	95.53	Comp	45.37	LD 9P	44.161	W -90	73.008	0.000	0.000	0.000	13.384	0	0.000	0	
LD 7	B/B L2.5"x2.5"x0.375"	DAE	2.5X2.5X0.38	36.0	71.91	Comp	18.25	LD 14Y	18.239	W -45	74.952	0.000	0.000	0.000	12.716	0	0.000	0	
LD 8	B/B L3.5"x3"x0.25"	DAL	3.5X3X0.25	36.0	99.20	Comp	47.51	LD 15P	42.823	W -90	67.608	0.000	0.000	0.000	12.716	0	0.000	0	
LD 10	B/B L3"x3"x0.25"	DAE	3X3X0.25	36.0	60.12	Comp	26.08	LD 20Y	21.627	W -45	62.208	0.000	0.000	0.000	11.381	0	0.000	0	
LD 11	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	87.52	Comp	44.23	LD 21P	27.131	W -90	46.008	0.000	0.000	0.000	8.160	0	0.000	0	
LD 12	B/B L3"x2"x0.25"	DAL	3X2X0.25	36.0	90.44	Comp	50.40	LD 23X	34.548	W -90	51.408	0.000	0.000	0.000	9.604	0	0.000	0	
LD 13	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	95.90	Comp	32.73	LD 26Y	20.077	W -45	46.008	0.000	0.000	0.000	10.793	0	0.000	0	
LD 14	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	83.31	Comp	43.73	LD 27P	26.827	W -90	46.008	0.000	0.000	0.000	8.014	0	0.000	0	
LD 15	B/B L3"x3"x0.25"	DAE	3X3X0.25	36.0	66.64	Comp	39.88	LD 29X	33.078	W -90	62.208	0.000	0.000	0.000	9.253	0	0.000	0	
LD 16	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	82.78	Comp	31.29	LD 32Y	19.192	W -45	46.008	0.000	0.000	0.000	10.229	0	0.000	0	
LD 17	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	80.13	Comp	41.40	LD 33P	25.397	W -90	46.008	0.000	0.000	0.000	7.876	0	0.000	0	
LD 18	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	36.0	99.88	Comp	50.76	LD 35X	31.136	W -90	46.008	0.000	0.000	0.000	8.919	0	0.000	0	
LH 1	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	56.79	Comp	16.70	LH 1Y	12.648	W 0 Ice	56.808	0.000	0.000	0.000	24.350	0	0.000	0	
LH 2	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	38.27	Comp	8.21	LH 3Y	6.215	W 0	56.808	0.000	0.000	0.000	22.762	0	0.000	0	
LH 3	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	35.86	Comp	8.56	LH 5Y	6.484	W 0	56.808	0.000	0.000	0.000	21.174	0	0.000	0	
LH 4	B/B L3"x3"x0.375"	DAE	3X3X0.38	36.0	71.87	Comp	19.60	LH 8Y	23.818	W -45	91.152	0.000	0.000	0.000	10.647	0	0.000	0	
LH 5	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	90.97	Comp	28.29	LH 10Y	21.429	W -45	56.808	0.000	0.000	0.000	9.820	0	0.000	0	
LH 6	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	36.0	72.80	Comp	25.88	LH 12Y	19.603	W -45	56.808	0.000	0.000	0.000	8.993	0	0.000	0	
DUM 1	Dummy Bracing Member	DUM	0.1X0.1X1	36.0	0.00		0.00	BR 15X	0.898	W -45	0.216	0.000	0.000	0.000	18.715	0	0.000	0	

*** Maximum Stress Summary for Each Load Case

Summary of Maximum Usages by Load Case:

Load Case	Maximum Usage %	Element Label	Element Type
W 0	99.13	W 6Y	Angle
W 180	99.90	H 6P	Angle
W 45	93.51	H 6XY	Angle
W -45	97.18	H 6Y	Angle
W 90	99.95	H 5X	Angle
W -90	100.45	H 5P	Angle NG
W 0 Ice	88.98	D 11P	Angle
W 180 Ice	90.32	D 11Y	Angle
W 45 Ice	84.40	LD 25P	Angle
W -45 Ice	88.46	LD 25X	Angle
W 90 Ice	89.25	D 12P	Angle
W -90 Ice	90.49	D 12X	Angle

*** Weight of structure (lbs):
Weight of Angles*Section DLF: 179316.8
Total: 179316.8

*** End of Report

[illegible][illegible]

Legs

Site No.:	88008
Engineer:	BD
Date:	01/26/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter or Length (in)	Thickness ^[2] (in)	F _y (ksi)
1	0.000-25.00	L	8	1.125	36
2	25.00-50.00	L	8	1.125	36
3	50.00-75.00	L	8	1.125	36
4	75.00-100.0	L	8	1.125	36
5	100.0-125.0	L	8	1	36
6	125.0-150.0	L	8	1	36
7	150.0-175.0	L	8	0.875	36
8	175.0-200.0	L	8	0.75	36
9	200.0-225.0	L	8	0.75	36
10	225.0-237.5	L	6	0.875	36
11	237.5-250.0	L	6	0.75	36
12	250.0-262.5	L	6	0.75	36
13	262.5-275.0	L	6	0.5625	36
14	275.0-287.5	L	6	0.5625	36
15	287.5-300.0	L	6	0.4375	36
16	300.0-310.2	L	5	0.4375	36
17	310.2-320.3	L	5	0.4375	36
18	320.3-328.9	L	5	0.3125	36
19	328.9-337.5	L	5	0.3125	36

Notes:

^[1] Type of Leg Shape: **R** = Round or **P** = Bent Plate or **S** = Schifflerized Angle. **L** = Even Leg

^[2] For Solid Round Leg Shapes Thickness Equals Zero.

^[3] Adjust for Bent Plate Leg Shapes.

Diagonals

Site No.:	88008
Engineer:	BD
Date:	01/26/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	Is Diag. Tension Only? (Y/N)
1	0.000-25.00	2L		3	4	0.375	36	
2	25.00-50.00	2L		3	4	0.25	36	
3	50.00-75.00	2L		3	4	0.25	36	
4	75.00-100.0	2L		3	3.5	0.25	36	
5	100.0-125.0	2L		3	3.5	0.25	36	
6	125.0-150.0	2L		2.5	3.5	0.25	36	
7	150.0-175.0	2L		3	3	0.375	36	
8	175.0-200.0	2L		2.5	3	0.25	36	
9	200.0-225.0	2L		2.5	3	0.25	36	
10	225.0-237.5	2L		2.5	2.5	0.25	36	
11	237.5-250.0	2L		2.5	2.5	0.25	36	
12	250.0-262.5	2L		2.5	2.5	0.25	36	
13	262.5-275.0	2L		2.5	2	0.25	36	
14	275.0-287.5	2L		2.5	2	0.25	36	
15	287.5-300.0	2L		2.5	2	0.25	36	
16	300.0-310.2	L		3.5	3.5	0.25	36	Y
17	310.2-320.3	L		3.5	3.5	0.25	36	Y
18	320.3-328.9	L		3	3	0.25	36	Y
19	328.9-337.5	L		3	3	0.25	36	Y

Notes:

^[1] Type of Diagonal Shape: R = Round, L = Single-Angle or 2L = Double-Angle.

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Horizontals

Site No.:	88008
Engineer:	BD
Date:	01/26/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	
1	0.000-25.00	2L		4	3	0.25	36	
2	25.00-50.00	2L		3.5	2.5	0.25	36	
3	50.00-75.00	2L		3	2.5	0.25	36	
4	75.00-100.0	2L		3.5	2.5	0.25	36	
5	100.0-125.0	2L		3.5	2.5	0.25	36	
6	125.0-150.0	2L		3	2.5	0.25	36	
7	150.0-175.0	2L		3	2.5	0.25	36	
8	175.0-200.0	2L		3	2.5	0.25	36	
9	200.0-225.0	2L		2.5	2.5	0.25	36	
10	225.0-237.5	2L		2.5	2.5	0.25	36	
11	237.5-250.0	2L		2.5	2.5	0.25	36	
12	250.0-262.5	2L		2.5	2.5	0.25	36	
13	262.5-275.0	2L		2.5	2.5	0.25	36	
14	275.0-287.5	2L		2.5	2.5	0.25	36	
15	287.5-300.0	2L		2.5	2.5	0.25	36	
16	300.0-310.2	L		3	2.5	0.25	36	
17	310.2-320.3	2L		3	2.5	0.25	36	
18	320.3-328.9	L		3	2.5	0.25	36	
19	328.9-337.5	C		8	11.5		36	

Notes:

^[1] Type of Horizontal Shape: **R** = Round, **L** = Single-Angle, **2L** = Double-Angle, **C** = Channel, **W** = W Shape

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Built-up Diagonals

Site No.:	88008
Engineer:	BD
Date:	01/26/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Input diags. from left to center & from base section upward.

Tower Built-up Diag. #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)
1	0.000-25.00	2L		3	2.5	0.3125	36
2	0.000-25.00	2L		4	3	0.3125	36
3	25.00-50.00	2L		3	2	0.25	36
4	25.00-50.00	2L		4	3	0.25	36
5	50.00-75.00	2L		2.5	2.5	0.375	36
6	50.00-75.00	2L		3.5	3	0.25	36
7	75.00-100.0	2L		3	3	0.25	36
8	75.00-100.0	2L		2.5	2	0.25	36
9	75.00-100.0	2L		3	2	0.25	36
10	100.0-125.0	2L		2.5	2	0.25	36
11	100.0-125.0	2L		2.5	2	0.25	36
12	100.0-125.0	2L		3	3	0.25	36
13	125.0-150.0	2L		2.5	2	0.25	36
14	125.0-150.0	2L		2.5	2	0.25	36
15	125.0-150.0	2L		2.5	2	0.25	36

Notes:

^[1] Type of Diagonal Shape: **R** = Round, **L** = Single-Angle or **2L** = Double-Angle.

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Built-up Horizontals

Site No.:	88008
Engineer:	BD
Date:	01/26/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape ^[1]	Diameter ^[2] (in)	Web Length ^[3] (in)	Flange Length ^[3] (in)	Thickness (in)	F _y (ksi)	Is Horiz. Tension Only? (Y/N)
1	0.000-25.00	2L		2.5	3	0.25	36	
2	25.00-50.00	2L		2.5	3	0.25	36	
3	50.00-75.00	2L		2.5	3	0.25	36	
4	75.00-100.0	2L		3	3	0.375	36	
5	100.0-125.0	2L		2.5	3	0.25	36	
6	125.0-150.0	2L		2.5	3	0.25	36	

Notes:

^[1] Type of Horizontal Shape: **R** = Round, **L** = Single-Angle or **2L** = Double-Angle.

^[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

^[3] Applies to Single-Angle and Double-Angle Shapes only.

^[4] Applies to Double-Angle Shapes only.

^[5] Applies to Single-Angle Shapes only.

Site No.:	88008
Engineer:	BD
Date:	01/26/15
Carrier:	Lightsquared LP

Dish Types		Joint Orientation	
		0°	
S	Standard	XY	Y
R	Standard w/ Radome		
H	High Performance	90°	
G	Grid	X	P

Dish Elevation (ft)	Dish Dia. (ft)	Dish Angle (deg)	Dish Type	Joint Orientation

Equipment Label	Attach Label	Equipment Property Set	EIA Antenna Orientation Angle

Description	From (ft)	To (ft)	Quantity	Shape	Width or Diameter (in)	Perimeter (in)	Unit Weight (lb/ft)	Part of Face Solidity Ratio (Yes/No)	Include in Wind Load (Yes/No)
Aband 1	0	337.5	1	Round	1.09	3.4	0.33	Yes	Yes
USCG 1	0	337.5	2	Round	1.09	3.4	0.33	Yes	Yes
USCG 2	0	310	2	Round	1.09	3.4	0.33	Yes	Yes
USCG 3	0	275	1	Round	1.09	3.4	0.33	Yes	Yes
Sprint Nextel 1	0	250	12	Round	1.98	6.2	0.82	Yes	Yes
Sprint Nextel 2	0	240	4	Round	1.55	4.9	0.33	Yes	Yes
T-Mobile	0	220	1	Round	7.92	30.0	9.84	Yes	Yes
T-Mobile 2	0	220	1	Round	0.315	1.0	0.04	Yes	Yes
US Treasury 1	0	194	1	Round	1.55	4.9	0.33	Yes	Yes
Verizon 1	0	180	1	Round	7.92	30.0	9.84	Yes	Yes
Lightsquared LP	0	319	1	Round	1.98	6.2	0.82	Yes	Yes
AT&T Mobility 1	0	165	1	Round	7.92	30.0	9.84	Yes	Yes
Metro PCS	0	100	6	Round	1.98	6.2	0.82	Yes	Yes
Sprint Nextel 3	0	48	1	Round	0.63	2.0	0.04	Yes	Yes
AT&T Mobility 2	0	165	1	Round	3.5	11.0	6	Yes	Yes
AT&T Mobility 3	0	165	1	Round	0.39	1.2	0.04	Yes	Yes
AT&T Mobility 4	0	165	1	Round	1.17	4.0	0.08	Yes	Yes
Metro PCS 3	0	20	1	Round	1.09	3.4	0.33	Yes	Yes
T-Mobile3	0	220	1	Round	0.44	1.4	0.04	Yes	Yes

Coax and Dishes (p. 2 of 2)

Tia Code: TIA-222-G

Exposure

Topo Cat:

Crest Ht:

f

B

1

0

α

z_g

K_e

7 $k_{z\max}$

1200 $k_{z\min}$

0.9 K_t

2.01

0.7

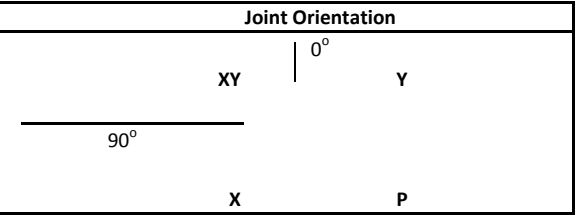
Description	From	To	Quantity	Face # (1-4, A-D)	Coax Width (in)	Considered Coax Shape (Block / Flat / Ind)	% Exposed	Spacing (in)	Shape (Round/Flat)	Block Width (# coax)	Block Depth (# coax)	Perimeter (in)	Unit Weight (lb/ft)	In Face Zone (Yes/No)	Include in Wind Load (Yes/No)
							100							No	No
Aband 1	0	337.5	1	4	1.09	Ind	100	0	Round	1	1	3.4	0.33	Yes	Yes
USCG 1	0	337.5	2	2	1.09	Ind	100		Round	2	1	3.4	0.33	Yes	Yes
USCG 2	0	310	2	2	1.09	Ind	100	0	Round	2	1	3.4	0.33	Yes	Yes
USCG 3	0	275	1	2	1.09	Ind	100		Round	1	1	3.4	0.33	Yes	Yes
Sprint Nextel 1	0	250	12	4	1.98	Ind	100	0	Round	12	1	6.2	0.82	Yes	Yes
Sprint Nextel 2	0	240	4	8	1.55	Ind	100		Round	4	1	4.9	0.33	Yes	Yes
T-Mobile	0	220	12	1	1.98	Ind	50	0	Round	6	2	30.0	9.84	Yes	Yes
T-Mobile 2	0	220	1	1	0.32	Ind	0		Round	1	1	1.0	0.04	Yes	Yes
US Treasury 1	0	194	1	2	1.55	Ind	100	0	Round	1	1	4.9	0.33	Yes	Yes
Verizon 1	0	180	12	4	1.98	Ind	50		Round	6	2	30.0	9.84	Yes	Yes
Lightsquared LP	0	319	1	4	1.98	Ind	100		Round	1	1	6.2	0.82	Yes	Yes
AT&T Mobility 1	0	165	12	2	1.98	Ind	50		Round	6	2	30.0	9.84	Yes	Yes
Metro PCS	0	100	6	1	1.98	Ind	100	0	Round	6	1	6.2	0.82	Yes	Yes
Sprint Nextel 3	0	48	1	2	0.63	Ind	100		Round	1	1	2.0	0.04	Yes	Yes
							100	0						No	Yes
AT&T Mobility 2	0	165	1	2	3.50	Ind	0		Round	1	1	11.0	6	Yes	Yes
AT&T Mobility 3	0	165	1	2	0.39	Ind	0	0	Round	1	1	1.2	0.04	Yes	Yes
AT&T Mobility 4	0	165	2	2	0.78	Ind	0		Round	1	2	4.0	0.08	Yes	Yes
Metro PCS 3	0	20	1	1	1.09	Ind	100	0	Round	1	1	3.4	0.33	Yes	Yes
														No	Yes
T-Mobile3	0	220	1	1	0.44	Ind	100	0	Round	1	1	1.4	0.04	Yes	Yes
							100							No	Yes
							100	0						No	Yes
							100							No	Yes
							100	0						No	Yes
							100							No	Yes
							100	0						No	Yes
							100							No	Yes
							100	0						No	Yes
							100							No	Yes
							100	0						No	Yes
							100							No	Yes
							100	0						No	Yes
							100							No	Yes
							100	0						No	Yes
							100							No	Yes
							100	0						No	Yes

Coax & Dishes

Dish Types	
S	Standard
R	Standard w/ Radome
H	High Performance
G	Grid

Dish Elevation (ft)	Dish Dia. (ft)	Dish Angle (deg)	Dish Type	Joint Orientation

Equipment Label	Attach Label	Equipment Property Set	EIA Antenna Orientation Angle <i>(deg)</i>



Site #:	88008
Name:	Lightsquared LP

Engineer:	BD
Date:	01/26/15

Section Label	Section Color	Joint Defining Bottom Section	Dead Load Adj. Factor					Adj. Factor Flat	Adj. Factor Round	Area Multiplier	Weight Multiplier
0.000-25.00		0P	1.585195713					1.320996427	1.320996427	1	1.2
25.00-50.00		1P	1.590007719					1.325006432	1.325006432	1	1.2
50.00-75.00		2P	1.605588167					1.337990139	1.337990139	1	1.2
75.00-100.0		3P	1.472051441					1.226709534	1.226709534	1	1.2
100.0-125.0		4P	1.46985131					1.224876092	1.224876092	1	1.2
125.0-150.0		5P	1.47553471					1.229612258	1.229612258	1	1.2
150.0-175.0		6P	1.529754954					1.274795795	1.274795795	1	1.2
175.0-200.0		7P	1.527887654					1.273239712	1.273239712	1	1.2
200.0-225.0		8P	1.516391419					1.263659516	1.263659516	1	1.2
225.0-237.5		9P	1.478249179					1.231874316	1.231874316	1	1.2
237.5-250.0		10P	1.471209196					1.226007664	1.226007664	1	1.2
250.0-262.5		11P	1.464012143					1.220010119	1.220010119	1	1.2
262.5-275.0		12P	1.456672479					1.213893733	1.213893733	1	1.2
275.0-287.5		13P	1.449208368					1.20767364	1.20767364	1	1.2
287.5-300.0		14P	1.441641869					1.201368224	1.201368224	1	1.2
300.0-310.2		15P	1.384856588					1.154047156	1.154047156	1	1.2
310.2-320.3		16P	1.436421012					1.19701751	1.19701751	1	1.2
320.3-328.9		17P	1.393105127					1.160920939	1.160920939	1	1.2
328.9-337.5		18P	1.346209977					1.121841647	1.121841647	1	1.2

Site #:	88008
Name:	Lightsquared LP

Engineer:	BD
Date:	01/26/15

Group Label	Group Description	Angle Type	Angle Size	Material Type	Element Type	Group Type	Optimize Group
Leg S1	L 8" x 8" x 1.125"	SAE	8X8X1.13	A 36	Beam	Leg	None
Leg S2	L 8" x 8" x 1.125"	SAE	8X8X1.13	A 36	Beam	Leg	None
Leg S3	L 8" x 8" x 1.125"	SAE	8X8X1.13	A 36	Beam	Leg	None
Leg S4	L 8" x 8" x 1.125"	SAE	8X8X1.13	A 36	Beam	Leg	None
Leg S5	L 8" x 8" x 1"	SAE	8X8X1	A 36	Beam	Leg	None
Leg S6	L 8" x 8" x 1"	SAE	8X8X1	A 36	Beam	Leg	None
Leg S7	L 8" x 8" x 0.875"	SAE	8X8X0.88	A 36	Beam	Leg	None
Leg S8	L 8" x 8" x 0.75"	SAE	8X8X0.75	A 36	Beam	Leg	None
Leg S9	L 8" x 8" x 0.75"	SAE	8X8X0.75	A 36	Beam	Leg	None
Leg S10	L 6" x 6" x 0.875"	SAE	6X6X0.88	A 36	Beam	Leg	None
Leg S11	L 6" x 6" x 0.75"	SAE	6X6X0.75	A 36	Beam	Leg	None
Leg S12	L 6" x 6" x 0.75"	SAE	6X6X0.75	A 36	Beam	Leg	None
Leg S13	L 6" x 6" x 0.5625"	SAE	6X6X0.56	A 36	Beam	Leg	None
Leg S14	L 6" x 6" x 0.5625"	SAE	6X6X0.56	A 36	Beam	Leg	None
Leg S15	L 6" x 6" x 0.4375"	SAE	6X6X0.44	A 36	Beam	Leg	None
Leg S16	L 5" x 5" x 0.4375"	SAE	5X5X0.44	A 36	Beam	Leg	None
Leg S17	L 5" x 5" x 0.4375"	SAE	5X5X0.44	A 36	Beam	Leg	None
Leg S18	L 5" x 5" x 0.3125"	SAE	5X5X0.31	A 36	Beam	Leg	None
Leg S19	L 5" x 5" x 0.3125"	SAE	5X5X0.31	A 36	Beam	Leg	None
Diag S1	B/B L3"x4"x0.375"	DAS	4X3X0.38	A 36	Beam	Other	None
Diag S2	B/B L3"x4"x0.25"	DAS	4X3X0.25	A 36	Beam	Other	None
Diag S3	B/B L3"x4"x0.25"	DAS	4X3X0.25	A 36	Beam	Other	None
Diag S4	B/B L3"x3.5"x0.25"	DAS	3.5X3X0.25	A 36	Beam	Other	None
Diag S5	B/B L3"x3.5"x0.25"	DAS	3.5X3X0.25	A 36	Beam	Other	None
Diag S6	B/B L2.5"x3.5"x0.25"	DAS	3.5X2.5X0.25	A 36	Beam	Other	None
Diag S7	B/B L3"x3"x0.375"	DAE	3X3X0.38	A 36	Beam	Other	None
Diag S8	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	Beam	Other	None
Diag S9	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	Beam	Other	None
Diag S10	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Diag S11	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Diag S12	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Diag S13	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
Diag S14	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
Diag S15	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
Diag S16	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	A 36	T-Only	Other	None
Diag S17	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	A 36	T-Only	Other	None
Diag S18	L 3" x 3" x 0.25"	SAE	3X3X0.25	A 36	T-Only	Other	None
Diag S19	L 3" x 3" x 0.25"	SAE	3X3X0.25	A 36	T-Only	Other	None
Horiz 1	B/B L4"x3"x0.25"	DAL	4X3X0.25	A 36	Beam	Other	None
Horiz 2	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	A 36	Beam	Other	None
Horiz 3	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 4	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	A 36	Beam	Other	None
Horiz 5	B/B L3.5"x2.5"x0.25"	DAL	3.5X2.5X0.25	A 36	Beam	Other	None
Horiz 6	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 7	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 8	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 9	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 10	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 11	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 12	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 13	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 14	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 15	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A 36	Beam	Other	None
Horiz 16	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	A 36	Beam	Other	None
Horiz 17	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A 36	Beam	Other	None
Horiz 18	L 3" x 2.5" x 0.25"	SAU	3X2.5X0.25	A 36	Beam	Other	None
Horiz 19	C8x11.5	CHN	C8x11.5	A 36	Beam	Other	None
LD 1	B/B L3"x2.5"x0.3125"	DAL	3X2.5X0.31	A 36	Beam	Other	None
LD 2	B/B L4"x3"x0.3125"	DAL	4X3X0.31	A 36	Beam	Other	None
LD 4	B/B L3"x2"x0.25"	DAL	3X2X0.25	A 36	Beam	Other	None
LD 5	B/B L4"x3"x0.25"	DAL	4X3X0.25	A 36	Beam	Other	None
LD 7	B/B L2.5"x2.5"x0.375"	DAE	2.5X2.5X0.38	A 36	Beam	Other	None
LD 8	B/B L3.5"x3"x0.25"	DAL	3.5X3X0.25	A 36	Beam	Other	None
LD 10	B/B L3"x3"x0.25"	DAE	3X3X0.25	A 36	Beam	Other	None

Group Label	Group Description	Angle Type	Angle Size	Material Type	Element Type	Group Type	Optimize Group
LD 11	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 12	B/B L3"x2"x0.25"	DAL	3X2X0.25	A 36	Beam	Other	None
LD 13	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 14	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 15	B/B L3"x3"x0.25"	DAE	3X3X0.25	A 36	Beam	Other	None
LD 16	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 17	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LD 18	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A 36	Beam	Other	None
LH 1	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	Beam	Other	None
LH 2	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	Beam	Other	None
LH 3	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	Beam	Other	None
LH 4	B/B L3"x3"x0.375"	DAE	3X3X0.38	A 36	Beam	Other	None
LH 5	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	Beam	Other	None
LH 6	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A 36	Beam	Other	None
DUM 1	Dummy Bracing Member	DUM	0.1X0.1X1	A 36	Beam	Fictitious	None

Group Label	Group Description	Angle Type	Angle Size	Material Type	Element Type	Group Type	Optimize Group
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Site #:	88008
Name:	Lightsquared LP

Engineer:	BD
Date:	01/26/15

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ	
L 1	Leg S1		XY-Symmetry	0P	1P		1	4	0.2812	0.2812	0.2812
L 2	Leg S2		XY-Symmetry	1P	2P		1	4	0.2812	0.2812	0.2812
L 3	Leg S3		XY-Symmetry	2P	3P		1	4	0.2812	0.2812	0.2812
L 4	Leg S4		XY-Symmetry	3P	4P		1	4	0.2812	0.2812	0.2812
L 5	Leg S5		XY-Symmetry	4P	5P		1	4	0.2812	0.2812	0.2812
L 6	Leg S6		XY-Symmetry	5P	6P		1	4	0.2812	0.2812	0.2812
L 7	Leg S7		XY-Symmetry	6P	7P		1	4	0.33333333	0.33333333	0.33333333
L 8	Leg S8		XY-Symmetry	7P	8P		1	4	0.33333333	0.33333333	0.33333333
L 9	Leg S9		XY-Symmetry	8P	9P		1	4	0.33333333	0.33333333	0.33333333
L 10	Leg S10		XY-Symmetry	9P	10P		1	4	0.5	0.5	0.5
L 11	Leg S11		XY-Symmetry	10P	11P		1	4	0.5	0.5	0.5
L 12	Leg S12		XY-Symmetry	11P	12P		1	4	0.5	0.5	0.5
L 13	Leg S13		XY-Symmetry	12P	13P		1	4	0.5	0.5	0.5
L 14	Leg S14		XY-Symmetry	13P	14P		1	4	0.5	0.5	0.5
L 15	Leg S15		XY-Symmetry	14P	15P		1	4	0.5	0.5	0.5
L 16	Leg S16		XY-Symmetry	15P	16P		1	4	0.5	0.5	0.5
L 17	Leg S17		XY-Symmetry	16P	17P		1	4	0.5	0.5	0.5
L 18	Leg S18		XY-Symmetry	17P	18P		1	4	0.5	0.5	0.5
L 19	Leg S19		XY-Symmetry	18P	19P		1	4	0.5	0.5	0.5

D 1	Diag S1		XY-Symmetry	0P	H2P		1	6	0.33333333	0.66666667	0.33333333
D 2	Diag S1		XY-Symmetry	0P	H1P		1	6	0.33333333	0.66666667	0.33333333
D 3	Diag S2		XY-Symmetry	1P	H6P		1	6	0.33333333	0.66666667	0.33333333
D 4	Diag S2		XY-Symmetry	1P	H5P		1	6	0.33333333	0.66666667	0.33333333
D 5	Diag S3		XY-Symmetry	2P	H10P		1	6	0.33333333	0.66666667	0.33333333
D 6	Diag S3		XY-Symmetry	2P	H9P		1	6	0.33333333	0.66666667	0.33333333
D 7	Diag S4		XY-Symmetry	3P	H14P		1	6	0.33333333	0.66666667	0.33333333
D 8	Diag S4		XY-Symmetry	3P	H13P		1	6	0.33333333	0.66666667	0.33333333
D 9	Diag S5		XY-Symmetry	4P	H18P		1	6	0.33333333	0.66666667	0.33333333
D 10	Diag S5		XY-Symmetry	4P	H17P		1	6	0.33333333	0.66666667	0.33333333
D 11	Diag S6		XY-Symmetry	5P	H22P		1	6	0.33333333	0.66666667	0.33333333
D 12	Diag S6		XY-Symmetry	5P	H21P		1	6	0.33333333	0.66666667	0.33333333
D 13	Diag S7		XY-Symmetry	6P	A13P		1	6	0.3	0.6	0.3
D 14	Diag S7		XY-Symmetry	6P	A14P		1	6	0.3	0.6	0.3
D 15	Diag S8		XY-Symmetry	7P	A15P		1	6	0.3	0.6	0.3
D 16	Diag S8		XY-Symmetry	7P	A16P		1	6	0.3	0.6	0.3
D 17	Diag S9		XY-Symmetry	8P	A17P		1	6	0.3	0.6	0.3
D 18	Diag S9		XY-Symmetry	8P	A18P		1	6	0.3	0.6	0.3
D 19	Diag S10		XY-Symmetry	9P	A19P		1	6	0.5	1	0.5
D 20	Diag S10		XY-Symmetry	9P	A20P		1	6	0.5	1	0.5
D 21	Diag S11		XY-Symmetry	10P	A21P		1	6	0.5	1	0.5
D 22	Diag S11		XY-Symmetry	10P	A22P		1	6	0.5	1	0.5

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
D 23	Diag S12		XY-Symmetry	11P	A23P		1 6	0.5	1	0.5
D 24	Diag S12		XY-Symmetry	11P	A24P		1 6	0.5	1	0.5
D 25	Diag S13		XY-Symmetry	12P	A25P		1 6	0.5	1	0.5
D 26	Diag S13		XY-Symmetry	12P	A26P		1 6	0.5	1	0.5
D 27	Diag S14		XY-Symmetry	13P	A27P		1 6	0.5	1	0.5
D 28	Diag S14		XY-Symmetry	13P	A28P		1 6	0.5	1	0.5
D 29	Diag S15		XY-Symmetry	14P	A29P		1 6	0.5	1	0.5
D 30	Diag S15		XY-Symmetry	14P	A30P		1 6	0.5	1	0.5
D 31	Diag S16		XY-Symmetry	15P	16Y		2 6	0.52	0.75	0.52
D 32	Diag S16		XY-Symmetry	15P	16X		2 6	0.52	0.75	0.52
D 33	Diag S17		XY-Symmetry	16P	17Y		2 5	0.52	0.75	0.52
D 34	Diag S17		XY-Symmetry	16P	17X		2 5	0.52	0.75	0.52
D 35	Diag S18		XY-Symmetry	17P	18Y		2 5	0.52	0.75	0.52
D 36	Diag S18		XY-Symmetry	17P	18X		2 5	0.52	0.75	0.52
D 37	Diag S19		XY-Symmetry	18P	19Y		2 5	0.52	0.75	0.52
D 38	Diag S19		XY-Symmetry	18P	19X		2 5	0.52	0.75	0.52

H 1	Horiz 1		XY-Symmetry	1P	A1P		1 6	0.5	0.5	0.5
H 2	Horiz 1		XY-Symmetry	1P	A2P		1 6	0.5	0.5	0.5
H 3	Horiz 2		XY-Symmetry	2P	A3P		1 6	0.5	0.5	0.5
H 4	Horiz 2		XY-Symmetry	2P	A4P		1 6	0.5	0.5	0.5
H 5	Horiz 3		XY-Symmetry	3P	A5P		1 6	0.46	0.46	0.46
H 6	Horiz 3		XY-Symmetry	3P	A6P		1 6	0.46	0.46	0.46
H 7	Horiz 4		XY-Symmetry	4P	A7P		1 6	0.9	0.9	0.9
H 8	Horiz 4		XY-Symmetry	4P	A8P		1 6	0.9	0.9	0.09

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
H 9	Horiz 5		XY-Symmetry	5P	A9P	1	6	1	1	1
H 10	Horiz 5		XY-Symmetry	5P	A10P	1	6	1	1	1
H 11	Horiz 6		XY-Symmetry	6P	A11P	1	6	1	1	1
H 12	Horiz 6		XY-Symmetry	6P	A12P	1	6	1	1	1
H 13	Horiz 7		XY-Symmetry	7P	A13P	1	6	1	1	1
H 14	Horiz 7		XY-Symmetry	7P	A14P	1	6	1	1	1
H 15	Horiz 8		XY-Symmetry	8P	A15P	1	6	1	1	1
H 16	Horiz 8		XY-Symmetry	8P	A16P	1	6	1	1	1
H 17	Horiz 9		XY-Symmetry	9P	A17P	1	6	1	1	1
H 18	Horiz 9		XY-Symmetry	9P	A18P	1	6	1	1	1
H 19	Horiz 10		XY-Symmetry	10P	A19P	1	6	1	1	1
H 20	Horiz 10		XY-Symmetry	10P	A20P	1	6	1	1	1
H 21	Horiz 11		XY-Symmetry	11P	A21P	1	6	1	1	1
H 22	Horiz 11		XY-Symmetry	11P	A22P	1	6	1	1	1
H 23	Horiz 12		XY-Symmetry	12P	A23P	1	6	1	1	1
H 24	Horiz 12		XY-Symmetry	12P	A24P	1	6	1	1	1
H 25	Horiz 13		XY-Symmetry	13P	A25P	1	6	1	1	1
H 26	Horiz 13		XY-Symmetry	13P	A26P	1	6	1	1	1
H 27	Horiz 14		XY-Symmetry	14P	A27P	1	6	1	1.2	1
H 28	Horiz 14		XY-Symmetry	14P	A28P	1	6	1	1.2	1
H 29	Horiz 15		XY-Symmetry	15P	A29P	1	6	1	1.07	1
H 30	Horiz 15		XY-Symmetry	15P	A30P	1	6	1	1.07	1
H 31	Horiz 16		Y-Symmetry	16P	16X	3	6	0.5	0.52	0.5
H 32	Horiz 16		X-Symmetry	16P	16Y	3	6	0.5	0.52	0.5
H 33	Horiz 17		Y-Symmetry	17P	17X	1	6	0.5	1	0.5
H 34	Horiz 17		X-Symmetry	17P	17Y	1	6	0.5	1	0.5
H 35	Horiz 18		Y-Symmetry	18P	18X	3	6	0.5	0.6	0.5
H 36	Horiz 18		X-Symmetry	18P	18Y	3	6	0.5	0.6	0.5
H 37	Horiz 19		Y-Symmetry	19P	19X	3	6	1	1	1
H 38	Horiz 19		X-Symmetry	19P	19Y	3	6	1	1	1

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
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H 45	Horiz 4		Y-Symmetry	A7P	A7X	1	6	1	1	1
H 46	Horiz 4		X-Symmetry	A8P	A8Y	1	6	1	1	1
H 47	Horiz 5		Y-Symmetry	A9P	A9X	1	6	1	1	1
H 48	Horiz 5		X-Symmetry	A10P	A10Y	1	6	1	1	1
H 49	Horiz 6		Y-Symmetry	A11P	A11X	1	6	1	1	1
H 50	Horiz 6		X-Symmetry	A12P	A12Y	1	6	1	1	1

LH 1	LH 1		Y-Symmetry	H1P	H1X	1	6	0.5	1	0.5
LH 2	LH 1		X-Symmetry	H2P	H2Y	1	6	0.5	1	0.5
LH 3	LH 2		Y-Symmetry	H5P	H5X	1	6	0.5	1	0.5
LH 4	LH 2		X-Symmetry	H6P	H6Y	1	6	0.5	1	0.5
LH 5	LH 3		Y-Symmetry	H9P	H9X	1	6	0.5	1	0.5
LH 6	LH 3		X-Symmetry	H10P	H10Y	1	6	0.5	1	0.5
LH 7	LH 4		XY-Symmetry	H13P	H15P	1	6	0.94	1.88	0.94
LH 8	LH 4		XY-Symmetry	H14P	H16P	1	6	0.94	1.88	0.94
LH 9	LH 5		XY-Symmetry	H17P	H19P	1	6	0.94	1.88	0.94
LH 10	LH 5		XY-Symmetry	H18P	H20P	1	6	0.94	1.88	0.94
LH 11	LH 6		XY-Symmetry	H21P	H23P	1	6	0.94	1.88	0.94
LH 12	LH 6		XY-Symmetry	H22P	H24P	1	6	0.94	1.88	0.94

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
LD 1	LD 1		XY-Symmetry	H1P	1P	1	6	0.904	0.904	0.904
LD 2	LD 1		XY-Symmetry	H2P	1P	1	6	0.904	0.904	0.904
LD 3	LD 2		XY-Symmetry	H1P	A1P	1	6	0.904	0.904	0.904
LD 4	LD 2		XY-Symmetry	H2P	A2P	1	6	0.904	0.904	0.904
LD 7	LD 4		XY-Symmetry	H5P	2P	1	6	0.904	0.904	0.904
LD 8	LD 4		XY-Symmetry	H6P	2P	1	6	0.904	0.904	0.904
LD 9	LD 5		XY-Symmetry	H5P	A3P	1	6	0.904	0.904	0.904
LD 10	LD 5		XY-Symmetry	H6P	A4P	1	6	0.904	0.904	0.904
LD 13	LD 7		XY-Symmetry	H9P	3P	1	6	0.904	0.904	0.904
LD 14	LD 7		XY-Symmetry	H10P	3P	1	6	0.904	0.904	0.904
LD 15	LD 8		XY-Symmetry	H9P	A5P	1	6	0.904	0.904	0.904
LD 16	LD 8		XY-Symmetry	H10P	A6P	1	6	0.904	0.904	0.904
LD 19	LD 10		XY-Symmetry	H13P	4P	1	6	0.83	0.83	0.83
LD 20	LD 10		XY-Symmetry	H14P	4P	1	6	0.83	0.83	0.83
LD 21	LD 11		XY-Symmetry	H13P	A7P	1	6	0.85	0.85	0.85
LD 22	LD 11		XY-Symmetry	H14P	A8P	1	6	0.85	0.85	0.85
LD 23	LD 12		XY-Symmetry	A7P	H15P	1	6	0.86	0.86	0.86
LD 24	LD 12		XY-Symmetry	A8P	H16P	1	6	0.86	0.86	0.86
LD 25	LD 13		XY-Symmetry	H17P	5P	1	6	0.83	0.83	0.83
LD 26	LD 13		XY-Symmetry	H18P	5P	1	6	0.83	0.83	0.83
LD 27	LD 14		XY-Symmetry	H17P	A9P	1	6	0.85	0.85	0.85
LD 28	LD 14		XY-Symmetry	H18P	A10P	1	6	0.85	0.85	0.85
LD 29	LD 15		XY-Symmetry	A9P	H19P	1	6	0.86	0.86	0.86
LD 30	LD 15		XY-Symmetry	A10P	H20P	1	6	0.86	0.86	0.86
LD 31	LD 16		XY-Symmetry	H21P	6P	1	6	0.83	0.83	0.83
LD 32	LD 16		XY-Symmetry	H22P	6P	1	6	0.83	0.83	0.83
LD 33	LD 17		XY-Symmetry	H21P	A11P	1	6	0.85	0.85	0.85
LD 34	LD 17		XY-Symmetry	H22P	A12P	1	6	0.85	0.85	0.85
LD 35	LD 18		XY-Symmetry	A11P	H23P	1	6	0.86	0.86	0.86
LD 36	LD 18		XY-Symmetry	A12P	H24P	1	6	0.86	0.86	0.86

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
BR 1	DUM 1		XY-Symmetry	A1P	A2P	1	4	1	1	1
BR 3	DUM 1		XY-Symmetry	A3P	A4P	1	4	1	1	1
BR 5	DUM 1		XY-Symmetry	A5P	A6P	1	4	1	1	1
BR 7	DUM 1		XY-Symmetry	A7P	A8P	1	4	1	1	1
BR 8	DUM 1		XY-Symmetry	A7P	A8XY	1	4	1	1	1
BR 9	DUM 1		XY-Symmetry	A9P	A10P	1	4	1	1	1
BR 10	DUM 1		XY-Symmetry	A9P	A10XY	1	4	1	1	1
BR 11	DUM 1		XY-Symmetry	A11P	A12P	1	4	1	1	1
BR 12	DUM 1		XY-Symmetry	A11P	A12XY	1	4	1	1	1
BR 13	DUM 1		XY-Symmetry	A13P	A14P	1	4	1	1	1
BR 15	DUM 1		XY-Symmetry	A15P	A16P	1	4	1	1	1
BR 17	DUM 1		XY-Symmetry	A17P	A18P	1	4	1	1	1
BR 19	DUM 1		XY-Symmetry	A19P	A20P	1	4	1	1	1
BR 21	DUM 1		XY-Symmetry	A21P	A22P	1	4	1	1	1
BR 23	DUM 1		XY-Symmetry	A23P	A24P	1	4	1	1	1
BR 25	DUM 1		XY-Symmetry	A25P	A26P	1	4	1	1	1
BR 27	DUM 1		XY-Symmetry	A27P	A28P	1	4	1	1	1
BR 29	DUM 1		XY-Symmetry	A29P	A30P	1	4	1	1	1

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
BR 61	DUM 1		XY-Symmetry	H1P	H2P	1	4	1	1	1
BR 62	DUM 1		XY-Symmetry	H1P	H2XY	1	4	1	1	1
BR 64	DUM 1		XY-Symmetry	H5P	H6P	1	4	1	1	1
BR 65	DUM 1		XY-Symmetry	H5P	H6XY	1	4	1	1	1
BR 67	DUM 1		XY-Symmetry	H9P	H10P	1	4	1	1	1
BR 68	DUM 1		XY-Symmetry	H9P	H10XY	1	4	1	1	1
BR 70	DUM 1		XY-Symmetry	H13P	H14P	1	4	1	1	1
BR 71	DUM 1		XY-Symmetry	H13P	H14XY	1	4	1	1	1
BR 72	DUM 1		XY-Symmetry	H15P	H16P	1	4	1	1	1
BR 73	DUM 1		XY-Symmetry	H17P	H18P	1	4	1	1	1
BR 74	DUM 1		XY-Symmetry	H17P	H18XY	1	4	1	1	1
BR 75	DUM 1		XY-Symmetry	H19P	H20P	1	4	1	1	1
BR 76	DUM 1		XY-Symmetry	H21P	H22P	1	4	1	1	1
BR 77	DUM 1		XY-Symmetry	H21P	H22XY	1	4	1	1	1
BR 78	DUM 1		XY-Symmetry	H23P	H24P	1	4	1	1	1

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
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Tower Height:	337.5	ft
Gh:	1.08	
Wind Speed:	85.00	mph
Wind Speed (Ice):	74.00	mph
Radial Ice Diameter:	0.5	in

KS-15676 Horn Antennas: ~128 ft²

No.	Carrier	Elevation (ft)	Quantity	Number of Azimuths	Model	Height (in)	Width (in)	Depth (in)	Weight (lbs/ea)	Flat/Round (F/R)	Reduction Factor	C _A C _c (ft²/ea)	Weight (k/ea)	H/W	C _A	q ₂ (psf)	q ₂ (Ice) (psf)
1	US Treasury	338	1	1	Rohde & Schwarz ADD090	78.7	31.5	31.5	88.2	F	1.000			2.50	1.40		
			1	4	Platform						1.000	70.00	6.00	-	-	35.96	27.25
2	US Treasury	310	1	1	Sinclair SC381-HL	160	4.5	4.5	47	R	1.000			35.56	1.20		
			1	1	Sector Frame						0.900	15.00	0.30	-	-	35.08	26.59
3	US Treasury	310	1	1	Sinclair SC281-L	251	5	5	79	R	1.000			50.20	1.20		
														-	-	35.08	26.59
4	US Treasury	275	1	1	Sinclair SC281-L	251	5	5	79	R	1.000			50.20	1.20		
			1	1	Sector Frame						0.900	15.00	0.30	-	-	33.90	25.69
5	Sprint Nextel	250	12	3	Decibel DB844H90E-XY	48	8	6.5	14	F	0.730			6.00	1.40		
			3	3	Pipes						0.667	8.00	0.20	-	-	32.99	25.00
6	Sprint Nextel	240	3	3	Alcatel-Lucent 1900 MHz 4X45 RRH	25.1	11.1	10.7	60	F	0.500			2.26	1.40		
			3	3	Sector Frames						0.667	15.00	0.30	-	-	32.60	24.71
7	T-Mobile	220	3	3	RFS APX16PV-16PVL-E-00	53	12.9	3.1	39.6	F	0.590			4.11	1.40		
			3	3	Sector Frames + (12) TTA's						0.667	19.60	0.40	-	-	31.80	24.10
8	Verizon	180	6	3	Andrew DB844H90E-XY	48	8.5	6	10	F	0.730			5.65	1.40		
			3	3	Sector Frames + (6) RFS Diplexers						0.667	14.74	0.31	-	-	30.03	22.76
9	Verizon	180	3	3	Powerwave P65-16-XL-2	72	12	5	33	F	0.640			6.00	1.40		
			3	3	Rymsa MGD3-800T0 + GPS						0.690	3.65	0.02	-	-	30.03	22.76
10	AT&T Mobility	165	6	3	Allgon 7770.00	55	11	5	35	F	0.640			5.00	1.40		
			3	3	Sector Frames + (6) TTA's						0.667	16.80	0.35	-	-	29.29	22.20
11	Metro PCS	100	3	3	RFS APXV18-206517S-C	72	6.8	3.2	26.4	F	0.680			10.59	1.52		
											0.001	0.00	0.00	-	-	25.39	19.24
12	Sprint Nextel	48	1	1	PCTEL GPS-TMG-HR-26N						1.000	0.09	0.01	0.00	0.00		
			1	1	Nortel NTGB01MA	4	4	4	1	R	1.000			1.00	0.80		
13	Metro PCS	20	1	1	Andrew DB616E-BC	231	3.5	3.5	51	R	1.000			66.00	1.20		
			1	1	Side Arm						1.000	5.20	0.15	-	-	30.68	23.25
15	Sprint Nextel	240	3	3	RFS APXVSP18-C-A20	72	11.8	7	57	F	0.680			6.10	1.40		
	Sprint Nextel		3	3	Alcatel-Lucent 800 MHz 2X50W RRH						0.500	2.40	0.06	-	-	32.60	24.71
16	-	320	1	4	Catwalk						1.000	55.00	4.00	0.00	0.00		
														-	-	35.40	26.83
17	-	237	1	4	Working Platform						1.000	25.00	2.50	0.00	0.00		
														-	-	32.49	24.62

Site:	88008
Carrier:	Lightsquared LP

Engineer:	BD
Date:	01/26/15

Load Case Description	Dead Load Factor	Wind Load Factor	Ice Load Factor	Strength Factor	Allowable Stress Inc. Factor	Basic Wind Speed	Wind Dir.	Ice Thick.	Ice Density	Temp.	Point Loads
W 0	1.1	1	1	1	1.333333333	85	0	0	56	50	
W 180	1.1	1	1	1	1.333333333	85	180	0	56	50	
W 45	1.1	1	1	1	1.333333333	85	45	0	56	50	
W -45	1.1	1	1	1	1.333333333	85	-45	0	56	50	
W 90	1.1	1	1	1	1.333333333	85	90	0	56	50	
W -90	1.1	1	1	1	1.333333333	85	-90	0	56	50	
W 0 Ice	1.1	1	1	1	1.333333333	74	0	0.5	56	10	
W 180 Ice	1.1	1	1	1	1.333333333	74	180	0.5	56	10	
W 45 Ice	1.1	1	1	1	1.333333333	74	45	0.5	56	10	
W -45 Ice	1.1	1	1	1	1.333333333	74	-45	0.5	56	10	
W 90 Ice	1.1	1	1	1	1.333333333	74	90	0.5	56	10	
W -90 Ice	1.1	1	1	1	1.333333333	74	-90	0.5	56	10	

Angle:	-90
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No Ice

Joint Label	Force X-Dir (lbs)	Force Y-Dir (lbs)	Force Vertical (lbs)	Moment X-Axis (ft-lbs)	Moment Y-Axis (ft-lbs)	Moment Z-Axis (ft-lbs)
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With Ice

Joint Label	Force X-Dir (lbs)	Force Y-Dir (lbs)	Force Vertical (lbs)
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Foundation

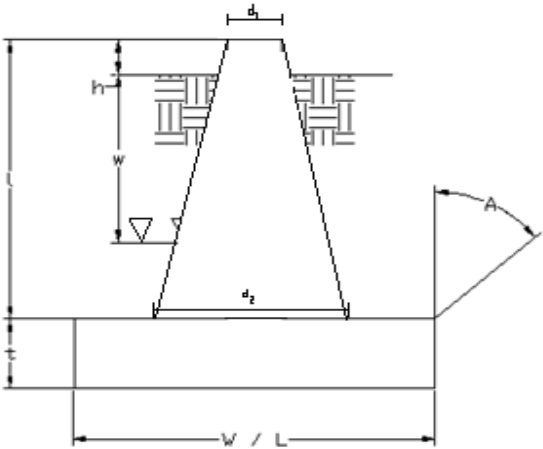
Design Loads (Unfactored)

Compression/Leg:	472.20	k
Uplift/Leg:	350.50	k

Face Width @ Top of Pier (d ₁):	4.00	ft
Face Width @ Bottom of Pier (d ₂):	7.50	ft
Total Length of Pier (l):	7.25	ft
Height of Pedestal Above Ground (h):	0.50	ft
Width of Pad (W):	21.50	ft
Length of Pad (L):	21.50	ft
Thickness of Pad (t):	2.50	ft
Water Table Depth (w):	20	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	131.0	pcf
Unit Weight of Soil (Below Water Table):	55.0	pcf
Friction Angle of Uplift (A):	0	°
Allowable Compressive Bearing Pressure:	8700	psf

Volume Pier (Total):	247.10	ft ³
Volume Pad (Total):	1155.63	ft ³
Volume Soil (Total):	2881.58	ft ³
Volume Pier (Buoyant):	0.00	ft ³
Volume Pad (Buoyant):	0.00	ft ³
Volume Soil (Buoyant):	0.00	ft ³
Weight Pier:	37.07	k
Weight Pad:	173.34	k
Weight Soil:	377.49	k

Site No.:	88008
Engineer:	BD
Date:	01/26/15
Carrier:	Lightsquared LP



Uplift Check

TIA Case 1:	$\frac{\text{Wt. Soil} + \text{Wt. Concrete}}{1.5}$
TIA Case 2:	$\frac{\text{Wt. Soil} + \text{Wt. Concrete}}{2.0 \quad 1.25}$

	Allowable Uplift (k)	Ratio	Result
TIA Case 1:	391.93	0.89	OK
TIA Case 2:	357.07	0.98	OK

Axial Check

Allowable Axial:	$\text{Allowable Bearing Pressure} * W * L$
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	Allowable Axial (k)	Ratio	Result
	4021.58	0.12	OK

Anchor Bolt Check

Bolt Description	Allowable Uplift (k)	Ratio	Result
(6) 2 1/4" A36	456.61	0.77	OK



LETTER OF AUTHORIZATION

ATC SITE # / NAME: 88008 /Bethany CT
SITE ADDRESS: 93 Old Amity Road, Bethany, CT 06524
LICENSEE: LightSquared LP d/b/a LightSquared

I, Margaret Robinson, Senior Counsel for American Tower*, owner of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize LightSquared LP d/b/a LightSquared, its successors and assigns, and/or its agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee's telecommunications' installation.

We understand that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson
Senior Counsel
American Tower*

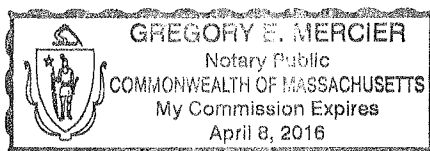
NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel for American Tower*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 25th day of February, 2015.

NOTARY SEAL



Notary Public Greg Mercier
My Commission Expires: 4/8/2016

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

To: Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

From: Marc R. Chretien, P.E., Advanced Engineering Group, P.C.

Date: February 27, 2015

Subject: American Tower Corporation (ATC) Communication Facility (ATC Site No. 88008)
93 Old Amity Road, Bethany, CT 06524

A F F I D A V I T

The purpose of this affidavit is to demonstrate that the project as proposed by ATC, and depicted on plans entitled "Conn 3, 88008, LightSquared Expansion Project", dated 2/13/15, Rev 0, by ATC, is in compliance with Connecticut Noise Regulations section 22a-69-3.

I, Marc R. Chretien under oath do depose and say:

1. My name is Marc R. Chretien. I am a licensed professional civil engineer in the state of Connecticut with registration number 28307.
2. I am an independent engineering consultant for the wireless industry located at 500 North Broadway, East Providence, RI. My professional services include providing engineering services for the design and construction of wireless facilities.
3. I have been involved with the design and construction of wireless facilities throughout New England for over fifteen (15) years and have previously prepared acoustical noise impact assessments for wireless sites.
4. I am familiar with the technical specifications, acoustical noise levels, and actual operating conditions of the telecommunications equipment utilized by LightSquared and ATC. The proposed ground-based equipment rack will be contained in an existing pre-cast concrete equipment shelter that is located in the southeast quadrant of the subject parcel as shown on the above-referenced plans. The rack will support various rectifiers and radios neither of which possess any HVAC components or heat exchangers. The estimated noise output of the equipment rack is comparable to that of desktop computer (approximately 20 dB(A)).
5. The nearest property line is located approximately 100' to the southeast of the existing equipment shelter that will contain the proposed equipment rack. Since the proposed equipment rack will be located inside the existing shelter, it is our opinion that the nominal noise level produced by the proposed rack will be completely attenuated by the existing concrete block equipment shelter and will be imperceptible at the closest property line.
6. CT Noise Regulations section 22a-69-3.1 states that DEP Noise Control Regulation 310 CMR 7.10 states that the allowable day and night noise levels for a Class A (residential area) are 55 dB(A) and 45 dB(A), respectively. Therefore, based on the above information, it is my professional opinion that the predicted maximum acoustical noise levels from the proposed LightSquared/ATC equipment, as depicted on the above-referenced plans, will be in accordance with the requirements of the CT Noise Regulations section 22a-69-3.

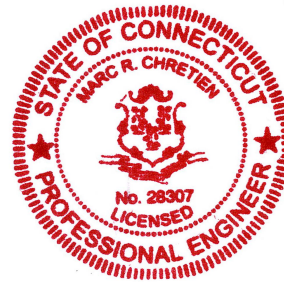


500 North Broadway
East Providence, RI 02914
Ph: 401-354-2403
Fax: 401-354-2397

Advanced Engineering Group, P.C.

Marc R. Chretien, P.E.

Signed under the pains and penalties of perjury this 5th day of March, 2015.





WATERFORD
COMPLIANCE...FROM START TO SIGNAL

RF EMISSIONS COMPLIANCE REPORT

LightSquared LP

Site: LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)

**93 Old Amity Road
Bethany , CT 06524-3400**

**Latitude/Longitude:
41.40475/-72.99998**

February 25, 2015

Report Status:

LightSquared LP Is under 5% Threshold

Prepared By:

Waterford Consultants, LLC

ENGINEERING STATEMENT CONFIRMING COMPLIANCE

With Radiofrequency Radiation Exposure Limits

Compliance Statement

Subject site COMPLIES with Radiofrequency Radiation Exposure Limits of 47 C.F.R. § 1.1307(b)(3) and 1.1310

Technical Framework: Basis for Compliance Statement

Criteria for evaluation are listed in Table 1 of 47 C.F.R. § 1.1310. Calculations using input data provided to Waterford by client or client's representative numerically confirm the subject site can operate at a 100% duty cycle without creating situations that exceed MPE limits in areas of uncontrolled access. Because the subject facility is commercial infrastructure, general public access to the immediate vicinity of the equipment is likely to diminish the quality of wireless service available to the community. For that reason, whether signage is, or is not required as a safety precaution, Waterford recommends placement of signage at the subject site for the purpose of improving network reliability by discouraging public access.

Power density decreases significantly over a short distance from any antenna. Specifically with respect to directional panel antennas, the design, oriented in azimuth and elevation as documented, reasonably precludes potential to exceed MPE limits at any location other than directly in front of the antenna. Areas in front of the antenna that are restricted by barriers, would require climbing or are otherwise beyond the reach of a standing individual of average height are not considered accessible. Analysis or measurement of instantaneous energy levels is performed for use as proof of compliance with FCC rules and regulations applicable to non-occupational persons, those individuals who are not authorized to access portions of the antenna support structure above ground level. To assess time-weighted exposure to occupational personal working within secured areas of the site, on the supporting structure, or in the immediate proximity of the antenna equipment is a separate study requiring detailed ergonomic information.

Regulatory Framework

The FCC requires licensees to assure that persons are not exposed to radiofrequency electromagnetic energy power densities in excess of the applicable MPE (Maximum Permissible Exposure) limit. These rules apply to both Occupational Personnel and the General Population. Applicable FCC rules are found at 47 C.F.R. § 1.1307(b)(3) and 1.1310. The FCC rules define two tiers of permissible exposure that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure.

General Population / uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure.

Occupational / controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure.

Maximum Permissible Exposure ("MPE") is defined in OET 65 as being 100% of the exposure limit for the situation or tier of permissible exposure. The time averaged maximum permissible exposure to radiofrequency electromagnetic energy (RF), shown in Table 1 of Appendix A, expressed in milliwatt-minutes per square centimeter, is the same value for both tiers. FCC intention regarding time averaged exposure is expressed in this quote from page 10 of OET 65:

"Another feature of the exposure guidelines is that exposures, in terms of power density, E2 or H2, may be averaged over certain periods of time with the average not to exceed the limit for continuous exposure.¹¹ As shown in Table 1 of Appendix A, the averaging time for occupational/controlled exposures is 6 minutes, while the averaging time for general population/uncontrolled exposures is 30 minutes. It is important to note that for general population/uncontrolled exposures it is often not possible to control exposures to the extent that averaging times can be applied. In those situations, it is often necessary to assume continuous exposure.

As an illustration of the application of time-averaging to occupational/controlled exposure consider the following. The relevant interval for time-averaging for occupational/controlled exposures is six minutes. This means, for example, that during any given six-minute period a worker could be exposed to two times the applicable power density limit for three minutes as long as he or she were not exposed at all for the preceding or following three minutes. Similarly, a worker could be exposed at three times the limit for two minutes as long as no exposure occurs during the preceding or subsequent four minutes, and so forth.

¹¹ *Note that although the FCC did not explicitly adopt limits for peak power density, guidance on these types of exposures can be found in Section 4.4 of the ANSI/IEEE C95.1-1992 standard."*

At the entry to any area in excess of 100% General Population MPE, access controls must be put in place and maintained to restrict access, preventing occupancy by the general population. For persons who have been properly trained and meet the definition of being Occupational Personnel, access to areas at the Occupational MPE limit may be granted for six minutes, so long as the preceding six minute period and the following six minute period are free from exposure; the worker is not exposed to any RF energy. Subject to other site security requirements, Occupational Personnel trained in RF safety and equipped with personal protective equipment designed for safe work in the vicinity of RF may be granted access. Controls such as physical barriers to entry imposed by locked doors, locked passageways, or other access control mechanisms may be supplemented by alarms that notify site management of a breach in access control. Controls may include administrative policies and procedures requiring proof of personal protective equipment (e.g. RF attenuating eyewear, wearable RF shielding), RF training requirements to obtain site access cards, presentation of appropriate RF awareness training certifications to security personnel, requirement to wear a personal RF monitor, or other measures that control access.

FCC regulations regarding Radiofrequency radiation exposure, expressed in 47 CFR § 1.1310 are further clarified with respect to the value of 5% of exposure limits for the subject transmitters in the following section of 47 CFR § 1.1307 (b):

⁽³⁾ *In general, when the guidelines specified in § 1.1310 are exceeded in an accessible area due to the emissions from multiple fixed transmitters, actions necessary to bring the area into compliance are the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter or field strength levels that, when squared, exceed 5% of the square of the electric or magnetic field strength limit applicable to their particular transmitter. Owners of transmitter sites are expected to allow applicants and licensees to take reasonable steps to comply with the requirements contained in §1.1307(b) and, where feasible, should encourage co-location of transmitters and common solutions for controlling access to areas where the RF exposure limits contained in § 1.1310 might be exceeded.*

Following these FCC requirements, predictive modeling was performed. That modeling indicates power density levels from client transmitters do not exceed 5% of the power density MPE limit applicable to their transmitters.

Qualifications of Waterford

With more than 40 team-years of experience, Waterford Consultants, LLC [Waterford] provides technical consulting services to clients in the Radio Communications and antenna siting industry. Waterford retains professional engineers who are placed in responsible charge of the processes for analysis.

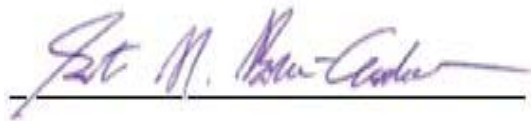
Waterford is familiar with 47 C.F.R. § § 1.1307(b)(3) and 1.1310 along with the general Rules, Regulations and policies of the FCC. Waterford processes incorporate all specifications of FCC Office of Engineering and Technology, Bulletin 65 ("OET65"), from the website: [Uwww.fcc.gov/oet/rfsafety](http://www.fcc.gov/oet/rfsafety),U and follow criteria detailed in 47 CFR § 1.1310 "Radiofrequency radiation exposure Limits".

Within the technical and regulatory framework detailed above, Waterford created sophisticated computer modeling tools that operate on data provided by Waterford clients through the Waterford web portal. In developing these tools, Waterford chose each program step encoded into computer modeling tools according to recognized and generally accepted good engineering practices. Permissible exposure limits are band specific, and the Waterford computerized modeling tools correctly calculate permissible exposure based on the band(s) specified in the input data. Only clients and client representatives are authorized to provide input data through the Waterford web portal. In securing that authorization, clients and client representatives warrant the accuracy of all input data.

Waterford Consultants, LLC attests to the accuracy of the engineering calculations. Waterford also attests that the results of those engineering calculations are correctly summarized in this report.

Certification

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the law.



Steven Nast Baier-Anderson
Registered Professional Engineer
Commonwealth of Virginia Reg. No. 0402-025832
February 25, 2015

2015.02.25 10:04:48 -05'00'



LightSquared LP
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Site Summary

Source	Predicted Power Density, % of MPE
AT&T Mobility	< 1 %
AT&T Mobility	< 1 %
AT&T Mobility	< 1 %
LightSquared LP	< 1 %
Metro PCS	< 1 %
Metro PCS	< 1 %
Sprint	< 1 %
Sprint	< 1 %
Sprint	< 1 %
T-Mobile	< 1 %
US Treasury	< 1 %
US Treasury	< 1 %
US Treasury	< 1 %
Verizon Wireless	< 1 %
Verizon Wireless	< 1 %
Verizon Wireless	< 1 %
Verizon Wireless	< 1 %
Sum of Listed Sources	0.1%

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	880 (MHz)
MPE	586 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.1 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Powerwave 7770_00	165	0	0	500	0.1	0
Powerwave 7770_00	165	120	0	500	0.1	0
Powerwave 7770_00	165	240	0	500	0.1	0

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	1950 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.1 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient ^o	DT ^o	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
KMW AM-X-CD-16-65	165	0	0	500	0.1	0
KMW AM-X-CD-16-65	165	120	0	500	0.1	0
KMW AM-X-CD-16-65	165	240	0	500	0.1	0

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	734 (MHz)
MPE	489 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW SBNH-1D6565C	165	0	0	500	0	0
ANDREW SBNH-1D6565C	165	120	0	500	0	0
ANDREW SBNH-1D6565C	165	240	0	500	0	0

LightSquared LP
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	1670 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Kathrein 750 10074	325	0	0	500	0	0

Metro PCS
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	1940 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS APXV18-206516S	100	30	0	660	0	0
RFS APXV18-206516S	100	150	0	660	0	0
RFS APXV18-206516S	100	270	0	660	0	0

Metro PCS
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	2130 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS APXV18-206516S	100	30	0	660	0	0
RFS APXV18-206516S	100	150	0	660	0	0
RFS APXV18-206516S	100	270	0	660	0	0

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	2496 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS APXV9TM14	240	0	0	749	0	0
RFS APXV9TM14	240	140	0	749	0	0
RFS APXV9TM14	240	220	0	749	0	0

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	862 (MHz)
MPE	574 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW DB844H90-XY	250	30	0	500	0	0
ANDREW DB844H90-XY	250	150	0	500	0	0
ANDREW DB844H90-XY	250	270	0	500	0	0

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	1950 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS APXVSPP18-C	240	0	0	630	0	0
RFS APXVSPP18-C	240	140	0	630	0	0
RFS APXVSPP18-C	240	220	0	630	0	0

T-Mobile
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	1940 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.1 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS APX16PV-16PVL	220	90	0	500	0.1	0
RFS APX16PV-16PVL	220	210	0	500	0.1	0
RFS APX16PV-16PVL	220	330	0	500	0.1	0

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	380 (MHz)
MPE	253 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
SINCLAIR SC381-HF1LDF-380	315	0	0	500	0	0

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	14000 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Generic Microwave Dish	204	0	0	1000	0	0

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	138 (MHz)
MPE	200 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.1 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
SINCLAIR SC281-HF2LDF	344	225	0	500	0	0
SINCLAIR SC281-HF2LDF	320	0	0	500	0	0
SINCLAIR SC281-HF2LDF	285	0	0	500	0	0
ANDREW DB616E	204	0	0	500	0.1	0

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	2110 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RYMSA MG D3-800T0	180	30	0	630	0	0
RYMSA MG D3-800T0	180	150	0	630	0	0
RYMSA MG D3-800T0	180	270	0	630	0	0

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	776 (MHz)
MPE	517 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.1 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Powerwave P65-16-XL-2	180	30	0	630	0.1	0
Powerwave P65-16-XL-2	180	150	0	630	0.1	0
Powerwave P65-16-XL-2	180	270	0	630	0.1	0

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	869 (MHz)
MPE	579 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.1 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW DB844H90-XY	180	30	0	630	0.1	0
ANDREW DB844H90-XY	180	150	0	630	0.1	0
ANDREW DB844H90-XY	180	270	0	630	0.1	0

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Summary

Frequency:	1970 (MHz)
MPE	1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	EIRP(W)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RYMSA MG D3-800T0	180	30	0	630	0	0
RYMSA MG D3-800T0	180	150	0	630	0	0
RYMSA MG D3-800T0	180	270	0	630	0	0

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Powerwave - 7770_00 0° Sector

Maximum Permissible Exposure

(MPE):

586 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		165		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.10	0.977	488.62	2878.4	2878.9	0.002	0.0003
5	1.30	0.741	370.66	574.3	576.5	0.04	0.006
10	5.70	0.269	134.58	285.0	289.4	0.05	0.01
20	16.70	0.021	10.69	138.0	146.9	0.02	0.003
30	17.20	0.019	9.53	87.0	100.5	0.03	0.005
35	39.10	0.000	0.06	71.8	87.6	0.0003	0.00005
40	19.00	0.013	6.29	59.9	78.2	0.03	0.006
45	16.00	0.025	12.56	50.2	71.0	0.08	0.01
50	16.60	0.022	10.94	42.2	65.6	0.08	0.01
55	19.50	0.011	5.61	35.2	61.3	0.05	0.008
60	24.20	0.004	1.90	29.0	58.0	0.02	0.003
65	29.80	0.001	0.52	23.4	55.4	0.006	0.001
70	33.00	0.001	0.25	18.3	53.5	0.003	0.0005
71	33.00	0.001	0.25	17.3	53.1	0.003	0.0005
72	33.20	0.000	0.24	16.3	52.8	0.003	0.0005
73	33.10	0.000	0.24	15.4	52.5	0.003	0.0005
74	33.10	0.000	0.24	14.4	52.3	0.003	0.0005
75	33.10	0.000	0.24	13.5	52.0	0.003	0.0005
76	33.30	0.000	0.23	12.5	51.8	0.003	0.0005
77	33.30	0.000	0.23	11.6	51.6	0.003	0.0005
78	33.50	0.000	0.22	10.7	51.4	0.003	0.0005
79	33.60	0.000	0.22	9.8	51.2	0.003	0.0005
80	33.70	0.000	0.21	8.9	51.0	0.003	0.0005
81	34.00	0.000	0.20	8.0	50.9	0.003	0.0004
82	34.00	0.000	0.20	7.1	50.7	0.003	0.0004
83	34.30	0.000	0.19	6.2	50.6	0.002	0.0004
84	34.50	0.000	0.18	5.3	50.5	0.002	0.0004
85	34.90	0.000	0.16	4.4	50.4	0.002	0.0004
86	35.10	0.000	0.15	3.5	50.4	0.002	0.0003
87	35.20	0.000	0.15	2.6	50.3	0.002	0.0003
88	35.40	0.000	0.14	1.8	50.3	0.002	0.0003
89	35.70	0.000	0.13	0.9	50.2	0.002	0.0003
90	36.00	0.000	0.13	0.0	50.2	0.002	0.0003

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Powerwave - 7770_00 120° Sector

Maximum Permissible Exposure

(MPE):

586 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		500	Height (feet)	165	Downtilt (Degrees)		0
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.10	0.977	488.62	2878.4	2878.9	0.002	0.0003
5	1.30	0.741	370.66	574.3	576.5	0.04	0.006
10	5.70	0.269	134.58	285.0	289.4	0.05	0.01
20	16.70	0.021	10.69	138.0	146.9	0.02	0.003
30	17.20	0.019	9.53	87.0	100.5	0.03	0.005
35	39.10	0.000	0.06	71.8	87.6	0.0003	0.00005
40	19.00	0.013	6.29	59.9	78.2	0.03	0.006
45	16.00	0.025	12.56	50.2	71.0	0.08	0.01
50	16.60	0.022	10.94	42.2	65.6	0.08	0.01
55	19.50	0.011	5.61	35.2	61.3	0.05	0.008
60	24.20	0.004	1.90	29.0	58.0	0.02	0.003
65	29.80	0.001	0.52	23.4	55.4	0.006	0.001
70	33.00	0.001	0.25	18.3	53.5	0.003	0.0005
71	33.00	0.001	0.25	17.3	53.1	0.003	0.0005
72	33.20	0.000	0.24	16.3	52.8	0.003	0.0005
73	33.10	0.000	0.24	15.4	52.5	0.003	0.0005
74	33.10	0.000	0.24	14.4	52.3	0.003	0.0005
75	33.10	0.000	0.24	13.5	52.0	0.003	0.0005
76	33.30	0.000	0.23	12.5	51.8	0.003	0.0005
77	33.30	0.000	0.23	11.6	51.6	0.003	0.0005
78	33.50	0.000	0.22	10.7	51.4	0.003	0.0005
79	33.60	0.000	0.22	9.8	51.2	0.003	0.0005
80	33.70	0.000	0.21	8.9	51.0	0.003	0.0005
81	34.00	0.000	0.20	8.0	50.9	0.003	0.0004
82	34.00	0.000	0.20	7.1	50.7	0.003	0.0004
83	34.30	0.000	0.19	6.2	50.6	0.002	0.0004
84	34.50	0.000	0.18	5.3	50.5	0.002	0.0004
85	34.90	0.000	0.16	4.4	50.4	0.002	0.0004
86	35.10	0.000	0.15	3.5	50.4	0.002	0.0003
87	35.20	0.000	0.15	2.6	50.3	0.002	0.0003
88	35.40	0.000	0.14	1.8	50.3	0.002	0.0003
89	35.70	0.000	0.13	0.9	50.2	0.002	0.0003
90	36.00	0.000	0.13	0.0	50.2	0.002	0.0003

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Powerwave - 7770_00 240° Sector

Maximum Permissible Exposure

(MPE):

586 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		165		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.10	0.977	488.62	2878.4	2878.9	0.002	0.0003
5	1.30	0.741	370.66	574.3	576.5	0.04	0.006
10	5.70	0.269	134.58	285.0	289.4	0.05	0.01
20	16.70	0.021	10.69	138.0	146.9	0.02	0.003
30	17.20	0.019	9.53	87.0	100.5	0.03	0.005
35	39.10	0.000	0.06	71.8	87.6	0.0003	0.00005
40	19.00	0.013	6.29	59.9	78.2	0.03	0.006
45	16.00	0.025	12.56	50.2	71.0	0.08	0.01
50	16.60	0.022	10.94	42.2	65.6	0.08	0.01
55	19.50	0.011	5.61	35.2	61.3	0.05	0.008
60	24.20	0.004	1.90	29.0	58.0	0.02	0.003
65	29.80	0.001	0.52	23.4	55.4	0.006	0.001
70	33.00	0.001	0.25	18.3	53.5	0.003	0.0005
71	33.00	0.001	0.25	17.3	53.1	0.003	0.0005
72	33.20	0.000	0.24	16.3	52.8	0.003	0.0005
73	33.10	0.000	0.24	15.4	52.5	0.003	0.0005
74	33.10	0.000	0.24	14.4	52.3	0.003	0.0005
75	33.10	0.000	0.24	13.5	52.0	0.003	0.0005
76	33.30	0.000	0.23	12.5	51.8	0.003	0.0005
77	33.30	0.000	0.23	11.6	51.6	0.003	0.0005
78	33.50	0.000	0.22	10.7	51.4	0.003	0.0005
79	33.60	0.000	0.22	9.8	51.2	0.003	0.0005
80	33.70	0.000	0.21	8.9	51.0	0.003	0.0005
81	34.00	0.000	0.20	8.0	50.9	0.003	0.0004
82	34.00	0.000	0.20	7.1	50.7	0.003	0.0004
83	34.30	0.000	0.19	6.2	50.6	0.002	0.0004
84	34.50	0.000	0.18	5.3	50.5	0.002	0.0004
85	34.90	0.000	0.16	4.4	50.4	0.002	0.0004
86	35.10	0.000	0.15	3.5	50.4	0.002	0.0003
87	35.20	0.000	0.15	2.6	50.3	0.002	0.0003
88	35.40	0.000	0.14	1.8	50.3	0.002	0.0003
89	35.70	0.000	0.13	0.9	50.2	0.002	0.0003
90	36.00	0.000	0.13	0.0	50.2	0.002	0.0003

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
KMW - AM-X-CD-16-65 0° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		500	Height (feet)	165	Downtilt (Degrees)		0
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.50	0.891	272.25	2878.4	2878.9	0.001	0.0001
5	14.70	0.034	10.35	574.3	576.5	0.001	0.0001
10	17.40	0.018	5.56	285.0	289.4	0.002	0.0002
20	31.30	0.001	0.23	138.0	146.9	0.0004	0.00004
30	29.30	0.001	0.36	87.0	100.5	0.001	0.0001
35	25.60	0.003	0.84	71.8	87.6	0.004	0.0004
40	26.20	0.002	0.73	59.9	78.2	0.004	0.0004
45	33.80	0.000	0.13	50.2	71.0	0.0008	0.00008
50	25.80	0.003	0.80	42.2	65.6	0.006	0.0006
55	38.70	0.000	0.04	35.2	61.3	0.0004	0.00004
60	40.90	0.000	0.02	29.0	58.0	0.0002	0.00002
65	24.10	0.004	1.19	23.4	55.4	0.01	0.001
70	17.80	0.017	5.07	18.3	53.5	0.06	0.006
71	17.40	0.018	5.56	17.3	53.1	0.07	0.007
72	17.00	0.020	6.10	16.3	52.8	0.07	0.007
73	16.90	0.020	6.24	15.4	52.5	0.08	0.008
74	16.70	0.021	6.53	14.4	52.3	0.08	0.008
75	16.80	0.021	6.38	13.5	52.0	0.08	0.008
76	16.90	0.020	6.24	12.5	51.8	0.08	0.008
77	17.10	0.019	5.96	11.6	51.6	0.07	0.007
78	17.40	0.018	5.56	10.7	51.4	0.07	0.007
79	17.70	0.017	5.19	9.8	51.2	0.07	0.007
80	18.00	0.016	4.84	8.9	51.0	0.06	0.006
81	18.40	0.014	4.42	8.0	50.9	0.06	0.006
82	18.80	0.013	4.03	7.1	50.7	0.05	0.005
83	19.20	0.012	3.67	6.2	50.6	0.05	0.005
84	19.70	0.011	3.27	5.3	50.5	0.04	0.004
85	20.10	0.010	2.99	4.4	50.4	0.04	0.004
86	20.40	0.009	2.79	3.5	50.4	0.04	0.004
87	21.00	0.008	2.43	2.6	50.3	0.03	0.003
88	21.40	0.007	2.21	1.8	50.3	0.03	0.003
89	21.90	0.006	1.97	0.9	50.2	0.03	0.003
90	22.30	0.006	1.80	0.0	50.2	0.02	0.002

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
KMW - AM-X-CD-16-65 120° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		165		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.50	0.891	272.25	2878.4	2878.9	0.001	0.0001
5	14.70	0.034	10.35	574.3	576.5	0.001	0.0001
10	17.40	0.018	5.56	285.0	289.4	0.002	0.0002
20	31.30	0.001	0.23	138.0	146.9	0.0004	0.00004
30	29.30	0.001	0.36	87.0	100.5	0.001	0.0001
35	25.60	0.003	0.84	71.8	87.6	0.004	0.0004
40	26.20	0.002	0.73	59.9	78.2	0.004	0.0004
45	33.80	0.000	0.13	50.2	71.0	0.0008	0.00008
50	25.80	0.003	0.80	42.2	65.6	0.006	0.0006
55	38.70	0.000	0.04	35.2	61.3	0.0004	0.00004
60	40.90	0.000	0.02	29.0	58.0	0.0002	0.00002
65	24.10	0.004	1.19	23.4	55.4	0.01	0.001
70	17.80	0.017	5.07	18.3	53.5	0.06	0.006
71	17.40	0.018	5.56	17.3	53.1	0.07	0.007
72	17.00	0.020	6.10	16.3	52.8	0.07	0.007
73	16.90	0.020	6.24	15.4	52.5	0.08	0.008
74	16.70	0.021	6.53	14.4	52.3	0.08	0.008
75	16.80	0.021	6.38	13.5	52.0	0.08	0.008
76	16.90	0.020	6.24	12.5	51.8	0.08	0.008
77	17.10	0.019	5.96	11.6	51.6	0.07	0.007
78	17.40	0.018	5.56	10.7	51.4	0.07	0.007
79	17.70	0.017	5.19	9.8	51.2	0.07	0.007
80	18.00	0.016	4.84	8.9	51.0	0.06	0.006
81	18.40	0.014	4.42	8.0	50.9	0.06	0.006
82	18.80	0.013	4.03	7.1	50.7	0.05	0.005
83	19.20	0.012	3.67	6.2	50.6	0.05	0.005
84	19.70	0.011	3.27	5.3	50.5	0.04	0.004
85	20.10	0.010	2.99	4.4	50.4	0.04	0.004
86	20.40	0.009	2.79	3.5	50.4	0.04	0.004
87	21.00	0.008	2.43	2.6	50.3	0.03	0.003
88	21.40	0.007	2.21	1.8	50.3	0.03	0.003
89	21.90	0.006	1.97	0.9	50.2	0.03	0.003
90	22.30	0.006	1.80	0.0	50.2	0.02	0.002

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
KMW - AM-X-CD-16-65 240° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		165		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.50	0.891	272.25	2878.4	2878.9	0.001	0.0001
5	14.70	0.034	10.35	574.3	576.5	0.001	0.0001
10	17.40	0.018	5.56	285.0	289.4	0.002	0.0002
20	31.30	0.001	0.23	138.0	146.9	0.0004	0.00004
30	29.30	0.001	0.36	87.0	100.5	0.001	0.0001
35	25.60	0.003	0.84	71.8	87.6	0.004	0.0004
40	26.20	0.002	0.73	59.9	78.2	0.004	0.0004
45	33.80	0.000	0.13	50.2	71.0	0.0008	0.00008
50	25.80	0.003	0.80	42.2	65.6	0.006	0.0006
55	38.70	0.000	0.04	35.2	61.3	0.0004	0.00004
60	40.90	0.000	0.02	29.0	58.0	0.0002	0.00002
65	24.10	0.004	1.19	23.4	55.4	0.01	0.001
70	17.80	0.017	5.07	18.3	53.5	0.06	0.006
71	17.40	0.018	5.56	17.3	53.1	0.07	0.007
72	17.00	0.020	6.10	16.3	52.8	0.07	0.007
73	16.90	0.020	6.24	15.4	52.5	0.08	0.008
74	16.70	0.021	6.53	14.4	52.3	0.08	0.008
75	16.80	0.021	6.38	13.5	52.0	0.08	0.008
76	16.90	0.020	6.24	12.5	51.8	0.08	0.008
77	17.10	0.019	5.96	11.6	51.6	0.07	0.007
78	17.40	0.018	5.56	10.7	51.4	0.07	0.007
79	17.70	0.017	5.19	9.8	51.2	0.07	0.007
80	18.00	0.016	4.84	8.9	51.0	0.06	0.006
81	18.40	0.014	4.42	8.0	50.9	0.06	0.006
82	18.80	0.013	4.03	7.1	50.7	0.05	0.005
83	19.20	0.012	3.67	6.2	50.6	0.05	0.005
84	19.70	0.011	3.27	5.3	50.5	0.04	0.004
85	20.10	0.010	2.99	4.4	50.4	0.04	0.004
86	20.40	0.009	2.79	3.5	50.4	0.04	0.004
87	21.00	0.008	2.43	2.6	50.3	0.03	0.003
88	21.40	0.007	2.21	1.8	50.3	0.03	0.003
89	21.90	0.006	1.97	0.9	50.2	0.03	0.003
90	22.30	0.006	1.80	0.0	50.2	0.02	0.002

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - SBNH-1D6565C 0° Sector

Maximum Permissible Exposure

(MPE):

489 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		500	Height (feet)	165	Downtilt (Degrees)		0
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	466.63	2878.4	2878.9	0.002	0.0004
5	1.04	0.787	393.52	574.3	576.5	0.04	0.008
10	12.10	0.062	30.83	285.0	289.4	0.01	0.003
20	18.02	0.016	7.89	138.0	146.9	0.01	0.002
30	20.21	0.010	4.76	87.0	100.5	0.02	0.003
35	50.04	0.000	0.00	71.8	87.6	0.00002	0
40	24.84	0.003	1.64	59.9	78.2	0.009	0.002
45	24.67	0.003	1.71	50.2	71.0	0.01	0.002
50	27.09	0.002	0.98	42.2	65.6	0.008	0.002
55	33.19	0.000	0.24	35.2	61.3	0.002	0.0004
60	43.62	0.000	0.02	29.0	58.0	0.0002	0.00004
65	34.34	0.000	0.18	23.4	55.4	0.002	0.0004
70	29.59	0.001	0.55	18.3	53.5	0.006	0.001
71	29.73	0.001	0.53	17.3	53.1	0.006	0.001
72	30.13	0.001	0.49	16.3	52.8	0.006	0.001
73	30.78	0.001	0.42	15.4	52.5	0.005	0.001
74	31.69	0.001	0.34	14.4	52.3	0.004	0.0008
75	32.88	0.001	0.26	13.5	52.0	0.003	0.0006
76	34.38	0.000	0.18	12.5	51.8	0.002	0.0005
77	36.21	0.000	0.12	11.6	51.6	0.002	0.0003
78	38.29	0.000	0.07	10.7	51.4	0.001	0.0002
79	40.23	0.000	0.05	9.8	51.2	0.0006	0.0001
80	41.29	0.000	0.04	8.9	51.0	0.0005	0.0001
81	41.07	0.000	0.04	8.0	50.9	0.0005	0.0001
82	40.06	0.000	0.05	7.1	50.7	0.0006	0.0001
83	38.79	0.000	0.07	6.2	50.6	0.0009	0.0002
84	37.46	0.000	0.09	5.3	50.5	0.001	0.0002
85	36.13	0.000	0.12	4.4	50.4	0.002	0.0003
86	34.89	0.000	0.16	3.5	50.4	0.002	0.0004
87	33.86	0.000	0.21	2.6	50.3	0.003	0.0006
88	33.10	0.000	0.24	1.8	50.3	0.003	0.0007
89	32.66	0.001	0.27	0.9	50.2	0.004	0.0007
90	32.55	0.001	0.28	0.0	50.2	0.004	0.0008

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - SBNH-1D6565C 120° Sector

Maximum Permissible Exposure

(MPE):

489 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		165		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	466.63	2878.4	2878.9	0.002	0.0004
5	1.04	0.787	393.52	574.3	576.5	0.04	0.008
10	12.10	0.062	30.83	285.0	289.4	0.01	0.003
20	18.02	0.016	7.89	138.0	146.9	0.01	0.002
30	20.21	0.010	4.76	87.0	100.5	0.02	0.003
35	50.04	0.000	0.00	71.8	87.6	0.00002	0
40	24.84	0.003	1.64	59.9	78.2	0.009	0.002
45	24.67	0.003	1.71	50.2	71.0	0.01	0.002
50	27.09	0.002	0.98	42.2	65.6	0.008	0.002
55	33.19	0.000	0.24	35.2	61.3	0.002	0.0004
60	43.62	0.000	0.02	29.0	58.0	0.0002	0.00004
65	34.34	0.000	0.18	23.4	55.4	0.002	0.0004
70	29.59	0.001	0.55	18.3	53.5	0.006	0.001
71	29.73	0.001	0.53	17.3	53.1	0.006	0.001
72	30.13	0.001	0.49	16.3	52.8	0.006	0.001
73	30.78	0.001	0.42	15.4	52.5	0.005	0.001
74	31.69	0.001	0.34	14.4	52.3	0.004	0.0008
75	32.88	0.001	0.26	13.5	52.0	0.003	0.0006
76	34.38	0.000	0.18	12.5	51.8	0.002	0.0005
77	36.21	0.000	0.12	11.6	51.6	0.002	0.0003
78	38.29	0.000	0.07	10.7	51.4	0.001	0.0002
79	40.23	0.000	0.05	9.8	51.2	0.0006	0.0001
80	41.29	0.000	0.04	8.9	51.0	0.0005	0.0001
81	41.07	0.000	0.04	8.0	50.9	0.0005	0.0001
82	40.06	0.000	0.05	7.1	50.7	0.0006	0.0001
83	38.79	0.000	0.07	6.2	50.6	0.0009	0.0002
84	37.46	0.000	0.09	5.3	50.5	0.001	0.0002
85	36.13	0.000	0.12	4.4	50.4	0.002	0.0003
86	34.89	0.000	0.16	3.5	50.4	0.002	0.0004
87	33.86	0.000	0.21	2.6	50.3	0.003	0.0006
88	33.10	0.000	0.24	1.8	50.3	0.003	0.0007
89	32.66	0.001	0.27	0.9	50.2	0.004	0.0007
90	32.55	0.001	0.28	0.0	50.2	0.004	0.0008

AT&T Mobility
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - SBNH-1D6565C 240° Sector

Maximum Permissible Exposure

(MPE):

489 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		165		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	466.63	2878.4	2878.9	0.002	0.0004
5	1.04	0.787	393.52	574.3	576.5	0.04	0.008
10	12.10	0.062	30.83	285.0	289.4	0.01	0.003
20	18.02	0.016	7.89	138.0	146.9	0.01	0.002
30	20.21	0.010	4.76	87.0	100.5	0.02	0.003
35	50.04	0.000	0.00	71.8	87.6	0.00002	0
40	24.84	0.003	1.64	59.9	78.2	0.009	0.002
45	24.67	0.003	1.71	50.2	71.0	0.01	0.002
50	27.09	0.002	0.98	42.2	65.6	0.008	0.002
55	33.19	0.000	0.24	35.2	61.3	0.002	0.0004
60	43.62	0.000	0.02	29.0	58.0	0.0002	0.00004
65	34.34	0.000	0.18	23.4	55.4	0.002	0.0004
70	29.59	0.001	0.55	18.3	53.5	0.006	0.001
71	29.73	0.001	0.53	17.3	53.1	0.006	0.001
72	30.13	0.001	0.49	16.3	52.8	0.006	0.001
73	30.78	0.001	0.42	15.4	52.5	0.005	0.001
74	31.69	0.001	0.34	14.4	52.3	0.004	0.0008
75	32.88	0.001	0.26	13.5	52.0	0.003	0.0006
76	34.38	0.000	0.18	12.5	51.8	0.002	0.0005
77	36.21	0.000	0.12	11.6	51.6	0.002	0.0003
78	38.29	0.000	0.07	10.7	51.4	0.001	0.0002
79	40.23	0.000	0.05	9.8	51.2	0.0006	0.0001
80	41.29	0.000	0.04	8.9	51.0	0.0005	0.0001
81	41.07	0.000	0.04	8.0	50.9	0.0005	0.0001
82	40.06	0.000	0.05	7.1	50.7	0.0006	0.0001
83	38.79	0.000	0.07	6.2	50.6	0.0009	0.0002
84	37.46	0.000	0.09	5.3	50.5	0.001	0.0002
85	36.13	0.000	0.12	4.4	50.4	0.002	0.0003
86	34.89	0.000	0.16	3.5	50.4	0.002	0.0004
87	33.86	0.000	0.21	2.6	50.3	0.003	0.0006
88	33.10	0.000	0.24	1.8	50.3	0.003	0.0007
89	32.66	0.001	0.27	0.9	50.2	0.004	0.0007
90	32.55	0.001	0.28	0.0	50.2	0.004	0.0008

LightSquared LP
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Kathrein - 750 10074 0° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		325		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.36	0.920	281.17	5669.7	5670.5	0.0003	0.00003
5	7.88	0.163	49.77	1131.2	1135.5	0.001	0.0001
10	11.64	0.069	20.94	561.3	569.9	0.002	0.0002
20	31.28	0.001	0.23	271.9	289.4	0.0001	0.00001
30	25.95	0.003	0.78	171.4	197.9	0.0007	0.00007
35	28.57	0.001	0.42	141.3	172.5	0.0005	0.00005
40	31.23	0.001	0.23	117.9	154.0	0.0003	0.00003
45	34.40	0.000	0.11	99.0	140.0	0.0002	0.00002
50	25.14	0.003	0.94	83.0	129.2	0.002	0.0002
55	29.73	0.001	0.33	69.3	120.8	0.0007	0.00007
60	25.67	0.003	0.83	57.1	114.3	0.002	0.0002
65	21.96	0.006	1.95	46.2	109.2	0.005	0.0005
70	30.86	0.001	0.25	36.0	105.3	0.0008	0.00008
71	36.61	0.000	0.07	34.1	104.7	0.0002	0.00002
72	46.58	0.000	0.01	32.2	104.1	0.00002	0
73	42.83	0.000	0.02	30.3	103.5	0.00005	0
74	36.71	0.000	0.07	28.4	103.0	0.0002	0.00002
75	34.03	0.000	0.12	26.5	102.5	0.0004	0.00004
76	33.54	0.000	0.14	24.7	102.0	0.0004	0.00004
77	33.27	0.000	0.14	22.8	101.6	0.0005	0.00005
78	33.67	0.000	0.13	21.0	101.2	0.0004	0.00004
79	33.77	0.000	0.13	19.2	100.8	0.0004	0.00004
80	33.92	0.000	0.12	17.4	100.5	0.0004	0.00004
81	34.47	0.000	0.11	15.7	100.2	0.0004	0.00004
82	34.22	0.000	0.12	13.9	99.9	0.0004	0.00004
83	35.23	0.000	0.09	12.2	99.7	0.0003	0.00003
84	36.58	0.000	0.07	10.4	99.5	0.0002	0.00002
85	38.05	0.000	0.05	8.7	99.3	0.0002	0.00002
86	41.42	0.000	0.02	6.9	99.2	0.00007	0.00001
87	45.86	0.000	0.01	5.2	99.1	0.00003	0
88	52.49	0.000	0.00	3.5	99.0	0.00001	0
89	54.42	0.000	0.00	1.7	99.0	0	0
90	44.31	0.000	0.01	0.0	99.0	0.00004	0

Metro PCS
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV18-206516S 30° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		660		100		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.02	0.995	401.37	1744.5	1744.8	0.004	0.0004
5	4.68	0.340	137.26	348.0	349.4	0.04	0.004
10	19.60	0.011	4.42	172.7	175.4	0.005	0.0005
20	17.57	0.017	7.06	83.7	89.0	0.03	0.003
30	23.40	0.005	1.84	52.7	60.9	0.02	0.002
35	36.60	0.000	0.09	43.5	53.1	0.001	0.0001
40	28.18	0.002	0.61	36.3	47.4	0.01	0.001
45	25.35	0.003	1.18	30.4	43.1	0.02	0.002
50	23.22	0.005	1.92	25.6	39.8	0.04	0.004
55	30.83	0.001	0.33	21.3	37.2	0.008	0.0008
60	39.65	0.000	0.04	17.6	35.2	0.001	0.0001
65	31.04	0.001	0.32	14.2	33.6	0.01	0.001
70	30.40	0.001	0.37	11.1	32.4	0.01	0.001
71	30.98	0.001	0.32	10.5	32.2	0.01	0.001
72	31.81	0.001	0.27	9.9	32.0	0.009	0.0009
73	32.76	0.001	0.21	9.3	31.8	0.007	0.0007
74	33.82	0.000	0.17	8.7	31.7	0.006	0.0006
75	34.93	0.000	0.13	8.2	31.5	0.004	0.0004
76	35.97	0.000	0.10	7.6	31.4	0.003	0.0003
77	36.65	0.000	0.09	7.0	31.2	0.003	0.0003
78	37.13	0.000	0.08	6.5	31.1	0.003	0.0003
79	37.21	0.000	0.08	5.9	31.0	0.003	0.0003
80	36.91	0.000	0.08	5.4	30.9	0.003	0.0003
81	36.59	0.000	0.09	4.8	30.8	0.003	0.0003
82	36.23	0.000	0.10	4.3	30.8	0.003	0.0003
83	35.86	0.000	0.10	3.7	30.7	0.004	0.0004
84	35.63	0.000	0.11	3.2	30.6	0.004	0.0004
85	35.54	0.000	0.11	2.7	30.6	0.004	0.0004
86	35.50	0.000	0.11	2.1	30.5	0.004	0.0004
87	35.49	0.000	0.11	1.6	30.5	0.004	0.0004
88	35.72	0.000	0.11	1.1	30.5	0.004	0.0004
89	35.92	0.000	0.10	0.5	30.5	0.004	0.0004
90	36.11	0.000	0.10	0.0	30.4	0.004	0.0004

Metro PCS
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV18-206516S 150° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		660		100		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.02	0.995	401.37	1744.5	1744.8	0.004	0.0004
5	4.68	0.340	137.26	348.0	349.4	0.04	0.004
10	19.60	0.011	4.42	172.7	175.4	0.005	0.0005
20	17.57	0.017	7.06	83.7	89.0	0.03	0.003
30	23.40	0.005	1.84	52.7	60.9	0.02	0.002
35	36.60	0.000	0.09	43.5	53.1	0.001	0.0001
40	28.18	0.002	0.61	36.3	47.4	0.01	0.001
45	25.35	0.003	1.18	30.4	43.1	0.02	0.002
50	23.22	0.005	1.92	25.6	39.8	0.04	0.004
55	30.83	0.001	0.33	21.3	37.2	0.008	0.0008
60	39.65	0.000	0.04	17.6	35.2	0.001	0.0001
65	31.04	0.001	0.32	14.2	33.6	0.01	0.001
70	30.40	0.001	0.37	11.1	32.4	0.01	0.001
71	30.98	0.001	0.32	10.5	32.2	0.01	0.001
72	31.81	0.001	0.27	9.9	32.0	0.009	0.0009
73	32.76	0.001	0.21	9.3	31.8	0.007	0.0007
74	33.82	0.000	0.17	8.7	31.7	0.006	0.0006
75	34.93	0.000	0.13	8.2	31.5	0.004	0.0004
76	35.97	0.000	0.10	7.6	31.4	0.003	0.0003
77	36.65	0.000	0.09	7.0	31.2	0.003	0.0003
78	37.13	0.000	0.08	6.5	31.1	0.003	0.0003
79	37.21	0.000	0.08	5.9	31.0	0.003	0.0003
80	36.91	0.000	0.08	5.4	30.9	0.003	0.0003
81	36.59	0.000	0.09	4.8	30.8	0.003	0.0003
82	36.23	0.000	0.10	4.3	30.8	0.003	0.0003
83	35.86	0.000	0.10	3.7	30.7	0.004	0.0004
84	35.63	0.000	0.11	3.2	30.6	0.004	0.0004
85	35.54	0.000	0.11	2.7	30.6	0.004	0.0004
86	35.50	0.000	0.11	2.1	30.5	0.004	0.0004
87	35.49	0.000	0.11	1.6	30.5	0.004	0.0004
88	35.72	0.000	0.11	1.1	30.5	0.004	0.0004
89	35.92	0.000	0.10	0.5	30.5	0.004	0.0004
90	36.11	0.000	0.10	0.0	30.4	0.004	0.0004

Metro PCS
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV18-206516S 270° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		660		100		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.02	0.995	401.37	1744.5	1744.8	0.004	0.0004
5	4.68	0.340	137.26	348.0	349.4	0.04	0.004
10	19.60	0.011	4.42	172.7	175.4	0.005	0.0005
20	17.57	0.017	7.06	83.7	89.0	0.03	0.003
30	23.40	0.005	1.84	52.7	60.9	0.02	0.002
35	36.60	0.000	0.09	43.5	53.1	0.001	0.0001
40	28.18	0.002	0.61	36.3	47.4	0.01	0.001
45	25.35	0.003	1.18	30.4	43.1	0.02	0.002
50	23.22	0.005	1.92	25.6	39.8	0.04	0.004
55	30.83	0.001	0.33	21.3	37.2	0.008	0.0008
60	39.65	0.000	0.04	17.6	35.2	0.001	0.0001
65	31.04	0.001	0.32	14.2	33.6	0.01	0.001
70	30.40	0.001	0.37	11.1	32.4	0.01	0.001
71	30.98	0.001	0.32	10.5	32.2	0.01	0.001
72	31.81	0.001	0.27	9.9	32.0	0.009	0.0009
73	32.76	0.001	0.21	9.3	31.8	0.007	0.0007
74	33.82	0.000	0.17	8.7	31.7	0.006	0.0006
75	34.93	0.000	0.13	8.2	31.5	0.004	0.0004
76	35.97	0.000	0.10	7.6	31.4	0.003	0.0003
77	36.65	0.000	0.09	7.0	31.2	0.003	0.0003
78	37.13	0.000	0.08	6.5	31.1	0.003	0.0003
79	37.21	0.000	0.08	5.9	31.0	0.003	0.0003
80	36.91	0.000	0.08	5.4	30.9	0.003	0.0003
81	36.59	0.000	0.09	4.8	30.8	0.003	0.0003
82	36.23	0.000	0.10	4.3	30.8	0.003	0.0003
83	35.86	0.000	0.10	3.7	30.7	0.004	0.0004
84	35.63	0.000	0.11	3.2	30.6	0.004	0.0004
85	35.54	0.000	0.11	2.7	30.6	0.004	0.0004
86	35.50	0.000	0.11	2.1	30.5	0.004	0.0004
87	35.49	0.000	0.11	1.6	30.5	0.004	0.0004
88	35.72	0.000	0.11	1.1	30.5	0.004	0.0004
89	35.92	0.000	0.10	0.5	30.5	0.004	0.0004
90	36.11	0.000	0.10	0.0	30.4	0.004	0.0004

Metro PCS
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV18-206516S 30° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		660		100		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.25	0.944	380.67	1744.5	1744.8	0.004	0.0004
5	8.95	0.127	51.35	348.0	349.4	0.01	0.001
10	14.79	0.033	13.38	172.7	175.4	0.01	0.001
20	30.48	0.001	0.36	83.7	89.0	0.002	0.0002
30	23.72	0.004	1.71	52.7	60.9	0.02	0.002
35	30.56	0.001	0.35	43.5	53.1	0.004	0.0004
40	31.78	0.001	0.27	36.3	47.4	0.004	0.0004
45	30.28	0.001	0.38	30.4	43.1	0.007	0.0007
50	35.46	0.000	0.11	25.6	39.8	0.002	0.0002
55	27.69	0.002	0.69	21.3	37.2	0.02	0.002
60	29.12	0.001	0.49	17.6	35.2	0.01	0.001
65	34.88	0.000	0.13	14.2	33.6	0.004	0.0004
70	36.24	0.000	0.10	11.1	32.4	0.003	0.0003
71	35.64	0.000	0.11	10.5	32.2	0.004	0.0004
72	35.06	0.000	0.13	9.9	32.0	0.004	0.0004
73	34.57	0.000	0.14	9.3	31.8	0.005	0.0005
74	34.15	0.000	0.16	8.7	31.7	0.005	0.0005
75	33.99	0.000	0.16	8.2	31.5	0.005	0.0005
76	33.89	0.000	0.16	7.6	31.4	0.006	0.0006
77	33.82	0.000	0.17	7.0	31.2	0.006	0.0006
78	33.86	0.000	0.17	6.5	31.1	0.006	0.0006
79	34.00	0.000	0.16	5.9	31.0	0.006	0.0006
80	34.16	0.000	0.15	5.4	30.9	0.005	0.0005
81	34.41	0.000	0.15	4.8	30.8	0.005	0.0005
82	34.82	0.000	0.13	4.3	30.8	0.005	0.0005
83	35.17	0.000	0.12	3.7	30.7	0.004	0.0004
84	35.60	0.000	0.11	3.2	30.6	0.004	0.0004
85	36.13	0.000	0.10	2.7	30.6	0.004	0.0004
86	36.67	0.000	0.09	2.1	30.5	0.003	0.0003
87	37.12	0.000	0.08	1.6	30.5	0.003	0.0003
88	37.48	0.000	0.07	1.1	30.5	0.003	0.0003
89	37.81	0.000	0.07	0.5	30.5	0.002	0.0002
90	38.19	0.000	0.06	0.0	30.4	0.002	0.0002

Metro PCS
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV18-206516S 150° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		660		100		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.25	0.944	380.67	1744.5	1744.8	0.004	0.0004
5	8.95	0.127	51.35	348.0	349.4	0.01	0.001
10	14.79	0.033	13.38	172.7	175.4	0.01	0.001
20	30.48	0.001	0.36	83.7	89.0	0.002	0.0002
30	23.72	0.004	1.71	52.7	60.9	0.02	0.002
35	30.56	0.001	0.35	43.5	53.1	0.004	0.0004
40	31.78	0.001	0.27	36.3	47.4	0.004	0.0004
45	30.28	0.001	0.38	30.4	43.1	0.007	0.0007
50	35.46	0.000	0.11	25.6	39.8	0.002	0.0002
55	27.69	0.002	0.69	21.3	37.2	0.02	0.002
60	29.12	0.001	0.49	17.6	35.2	0.01	0.001
65	34.88	0.000	0.13	14.2	33.6	0.004	0.0004
70	36.24	0.000	0.10	11.1	32.4	0.003	0.0003
71	35.64	0.000	0.11	10.5	32.2	0.004	0.0004
72	35.06	0.000	0.13	9.9	32.0	0.004	0.0004
73	34.57	0.000	0.14	9.3	31.8	0.005	0.0005
74	34.15	0.000	0.16	8.7	31.7	0.005	0.0005
75	33.99	0.000	0.16	8.2	31.5	0.005	0.0005
76	33.89	0.000	0.16	7.6	31.4	0.006	0.0006
77	33.82	0.000	0.17	7.0	31.2	0.006	0.0006
78	33.86	0.000	0.17	6.5	31.1	0.006	0.0006
79	34.00	0.000	0.16	5.9	31.0	0.006	0.0006
80	34.16	0.000	0.15	5.4	30.9	0.005	0.0005
81	34.41	0.000	0.15	4.8	30.8	0.005	0.0005
82	34.82	0.000	0.13	4.3	30.8	0.005	0.0005
83	35.17	0.000	0.12	3.7	30.7	0.004	0.0004
84	35.60	0.000	0.11	3.2	30.6	0.004	0.0004
85	36.13	0.000	0.10	2.7	30.6	0.004	0.0004
86	36.67	0.000	0.09	2.1	30.5	0.003	0.0003
87	37.12	0.000	0.08	1.6	30.5	0.003	0.0003
88	37.48	0.000	0.07	1.1	30.5	0.003	0.0003
89	37.81	0.000	0.07	0.5	30.5	0.002	0.0002
90	38.19	0.000	0.06	0.0	30.4	0.002	0.0002

Metro PCS
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV18-206516S 270° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		660		100		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.25	0.944	380.67	1744.5	1744.8	0.004	0.0004
5	8.95	0.127	51.35	348.0	349.4	0.01	0.001
10	14.79	0.033	13.38	172.7	175.4	0.01	0.001
20	30.48	0.001	0.36	83.7	89.0	0.002	0.0002
30	23.72	0.004	1.71	52.7	60.9	0.02	0.002
35	30.56	0.001	0.35	43.5	53.1	0.004	0.0004
40	31.78	0.001	0.27	36.3	47.4	0.004	0.0004
45	30.28	0.001	0.38	30.4	43.1	0.007	0.0007
50	35.46	0.000	0.11	25.6	39.8	0.002	0.0002
55	27.69	0.002	0.69	21.3	37.2	0.02	0.002
60	29.12	0.001	0.49	17.6	35.2	0.01	0.001
65	34.88	0.000	0.13	14.2	33.6	0.004	0.0004
70	36.24	0.000	0.10	11.1	32.4	0.003	0.0003
71	35.64	0.000	0.11	10.5	32.2	0.004	0.0004
72	35.06	0.000	0.13	9.9	32.0	0.004	0.0004
73	34.57	0.000	0.14	9.3	31.8	0.005	0.0005
74	34.15	0.000	0.16	8.7	31.7	0.005	0.0005
75	33.99	0.000	0.16	8.2	31.5	0.005	0.0005
76	33.89	0.000	0.16	7.6	31.4	0.006	0.0006
77	33.82	0.000	0.17	7.0	31.2	0.006	0.0006
78	33.86	0.000	0.17	6.5	31.1	0.006	0.0006
79	34.00	0.000	0.16	5.9	31.0	0.006	0.0006
80	34.16	0.000	0.15	5.4	30.9	0.005	0.0005
81	34.41	0.000	0.15	4.8	30.8	0.005	0.0005
82	34.82	0.000	0.13	4.3	30.8	0.005	0.0005
83	35.17	0.000	0.12	3.7	30.7	0.004	0.0004
84	35.60	0.000	0.11	3.2	30.6	0.004	0.0004
85	36.13	0.000	0.10	2.7	30.6	0.004	0.0004
86	36.67	0.000	0.09	2.1	30.5	0.003	0.0003
87	37.12	0.000	0.08	1.6	30.5	0.003	0.0003
88	37.48	0.000	0.07	1.1	30.5	0.003	0.0003
89	37.81	0.000	0.07	0.5	30.5	0.002	0.0002
90	38.19	0.000	0.06	0.0	30.4	0.002	0.0002

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV9TM14 0° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		749		240		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.50	0.891	407.83	4186.8	4187.5	0.0008	0.00008
5	12.78	0.053	24.13	835.3	838.5	0.001	0.0001
10	24.26	0.004	1.72	414.5	420.9	0.0003	0.00003
20	21.86	0.007	2.98	200.8	213.7	0.002	0.0002
30	26.21	0.002	1.10	126.6	146.2	0.002	0.0002
35	26.69	0.002	0.98	104.4	127.4	0.002	0.0002
40	28.81	0.001	0.60	87.1	113.7	0.002	0.0002
45	34.10	0.000	0.18	73.1	103.4	0.0006	0.00006
50	33.10	0.000	0.22	61.3	95.4	0.0008	0.00008
55	39.55	0.000	0.05	51.2	89.2	0.0002	0.00002
60	39.48	0.000	0.05	42.2	84.4	0.0002	0.00002
65	34.66	0.000	0.16	34.1	80.6	0.0008	0.00008
70	33.44	0.000	0.21	26.6	77.8	0.001	0.0001
71	34.79	0.000	0.15	25.2	77.3	0.0008	0.00008
72	36.23	0.000	0.11	23.8	76.8	0.0006	0.00006
73	37.73	0.000	0.08	22.3	76.4	0.0004	0.00004
74	40.83	0.000	0.04	21.0	76.0	0.0002	0.00002
75	39.00	0.000	0.06	19.6	75.7	0.0003	0.00003
76	37.92	0.000	0.07	18.2	75.3	0.0004	0.00004
77	35.63	0.000	0.13	16.9	75.0	0.0007	0.00007
78	33.84	0.000	0.19	15.5	74.7	0.001	0.0001
79	33.43	0.000	0.21	14.2	74.4	0.001	0.0001
80	31.94	0.001	0.29	12.9	74.2	0.002	0.0002
81	31.63	0.001	0.31	11.6	74.0	0.002	0.0002
82	30.72	0.001	0.39	10.3	73.8	0.002	0.0002
83	31.06	0.001	0.36	9.0	73.6	0.002	0.0002
84	30.39	0.001	0.42	7.7	73.5	0.003	0.0003
85	30.91	0.001	0.37	6.4	73.4	0.002	0.0002
86	31.17	0.001	0.35	5.1	73.3	0.002	0.0002
87	32.55	0.001	0.25	3.8	73.2	0.002	0.0002
88	33.42	0.000	0.21	2.6	73.1	0.001	0.0001
89	35.20	0.000	0.14	1.3	73.1	0.0009	0.00009
90	37.08	0.000	0.09	0.0	73.1	0.0006	0.00006

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV9TM14 140° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		749		240		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.50	0.891	407.83	4186.8	4187.5	0.0008	0.00008
5	12.78	0.053	24.13	835.3	838.5	0.001	0.0001
10	24.26	0.004	1.72	414.5	420.9	0.0003	0.00003
20	21.86	0.007	2.98	200.8	213.7	0.002	0.0002
30	26.21	0.002	1.10	126.6	146.2	0.002	0.0002
35	26.69	0.002	0.98	104.4	127.4	0.002	0.0002
40	28.81	0.001	0.60	87.1	113.7	0.002	0.0002
45	34.10	0.000	0.18	73.1	103.4	0.0006	0.00006
50	33.10	0.000	0.22	61.3	95.4	0.0008	0.00008
55	39.55	0.000	0.05	51.2	89.2	0.0002	0.00002
60	39.48	0.000	0.05	42.2	84.4	0.0002	0.00002
65	34.66	0.000	0.16	34.1	80.6	0.0008	0.00008
70	33.44	0.000	0.21	26.6	77.8	0.001	0.0001
71	34.79	0.000	0.15	25.2	77.3	0.0008	0.00008
72	36.23	0.000	0.11	23.8	76.8	0.0006	0.00006
73	37.73	0.000	0.08	22.3	76.4	0.0004	0.00004
74	40.83	0.000	0.04	21.0	76.0	0.0002	0.00002
75	39.00	0.000	0.06	19.6	75.7	0.0003	0.00003
76	37.92	0.000	0.07	18.2	75.3	0.0004	0.00004
77	35.63	0.000	0.13	16.9	75.0	0.0007	0.00007
78	33.84	0.000	0.19	15.5	74.7	0.001	0.0001
79	33.43	0.000	0.21	14.2	74.4	0.001	0.0001
80	31.94	0.001	0.29	12.9	74.2	0.002	0.0002
81	31.63	0.001	0.31	11.6	74.0	0.002	0.0002
82	30.72	0.001	0.39	10.3	73.8	0.002	0.0002
83	31.06	0.001	0.36	9.0	73.6	0.002	0.0002
84	30.39	0.001	0.42	7.7	73.5	0.003	0.0003
85	30.91	0.001	0.37	6.4	73.4	0.002	0.0002
86	31.17	0.001	0.35	5.1	73.3	0.002	0.0002
87	32.55	0.001	0.25	3.8	73.2	0.002	0.0002
88	33.42	0.000	0.21	2.6	73.1	0.001	0.0001
89	35.20	0.000	0.14	1.3	73.1	0.0009	0.00009
90	37.08	0.000	0.09	0.0	73.1	0.0006	0.00006

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXV9TM14 220° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		749		240		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.50	0.891	407.83	4186.8	4187.5	0.0008	0.00008
5	12.78	0.053	24.13	835.3	838.5	0.001	0.0001
10	24.26	0.004	1.72	414.5	420.9	0.0003	0.00003
20	21.86	0.007	2.98	200.8	213.7	0.002	0.0002
30	26.21	0.002	1.10	126.6	146.2	0.002	0.0002
35	26.69	0.002	0.98	104.4	127.4	0.002	0.0002
40	28.81	0.001	0.60	87.1	113.7	0.002	0.0002
45	34.10	0.000	0.18	73.1	103.4	0.0006	0.00006
50	33.10	0.000	0.22	61.3	95.4	0.0008	0.00008
55	39.55	0.000	0.05	51.2	89.2	0.0002	0.00002
60	39.48	0.000	0.05	42.2	84.4	0.0002	0.00002
65	34.66	0.000	0.16	34.1	80.6	0.0008	0.00008
70	33.44	0.000	0.21	26.6	77.8	0.001	0.0001
71	34.79	0.000	0.15	25.2	77.3	0.0008	0.00008
72	36.23	0.000	0.11	23.8	76.8	0.0006	0.00006
73	37.73	0.000	0.08	22.3	76.4	0.0004	0.00004
74	40.83	0.000	0.04	21.0	76.0	0.0002	0.00002
75	39.00	0.000	0.06	19.6	75.7	0.0003	0.00003
76	37.92	0.000	0.07	18.2	75.3	0.0004	0.00004
77	35.63	0.000	0.13	16.9	75.0	0.0007	0.00007
78	33.84	0.000	0.19	15.5	74.7	0.001	0.0001
79	33.43	0.000	0.21	14.2	74.4	0.001	0.0001
80	31.94	0.001	0.29	12.9	74.2	0.002	0.0002
81	31.63	0.001	0.31	11.6	74.0	0.002	0.0002
82	30.72	0.001	0.39	10.3	73.8	0.002	0.0002
83	31.06	0.001	0.36	9.0	73.6	0.002	0.0002
84	30.39	0.001	0.42	7.7	73.5	0.003	0.0003
85	30.91	0.001	0.37	6.4	73.4	0.002	0.0002
86	31.17	0.001	0.35	5.1	73.3	0.002	0.0002
87	32.55	0.001	0.25	3.8	73.2	0.002	0.0002
88	33.42	0.000	0.21	2.6	73.1	0.001	0.0001
89	35.20	0.000	0.14	1.3	73.1	0.0009	0.00009
90	37.08	0.000	0.09	0.0	73.1	0.0006	0.00006

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - DB844H90-XY 30° Sector

Maximum Permissible Exposure

(MPE):

574 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		250		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.01	0.998	498.85	4361.3	4362.0	0.0009	0.0002
5	1.00	0.794	397.16	870.1	873.4	0.02	0.003
10	4.83	0.329	164.43	431.7	438.4	0.03	0.005
20	18.58	0.014	6.93	209.2	222.6	0.005	0.0008
30	13.22	0.048	23.82	131.9	152.3	0.03	0.006
35	18.96	0.013	6.35	108.7	132.7	0.01	0.002
40	29.97	0.001	0.50	90.7	118.4	0.001	0.0002
45	22.32	0.006	2.93	76.1	107.7	0.008	0.001
50	20.99	0.008	3.98	63.9	99.4	0.01	0.002
55	23.39	0.005	2.29	53.3	92.9	0.009	0.002
60	27.47	0.002	0.90	44.0	87.9	0.004	0.0007
65	25.95	0.003	1.27	35.5	84.0	0.006	0.001
70	23.40	0.005	2.29	27.7	81.0	0.01	0.002
71	23.06	0.005	2.47	26.2	80.5	0.01	0.002
72	22.82	0.005	2.61	24.7	80.0	0.01	0.002
73	22.70	0.005	2.68	23.3	79.6	0.01	0.002
74	22.66	0.005	2.71	21.8	79.2	0.01	0.003
75	22.67	0.005	2.70	20.4	78.8	0.01	0.003
76	22.65	0.005	2.72	19.0	78.5	0.01	0.003
77	22.71	0.005	2.68	17.6	78.1	0.01	0.003
78	22.94	0.005	2.54	16.2	77.8	0.01	0.002
79	23.13	0.005	2.43	14.8	77.6	0.01	0.002
80	23.41	0.005	2.28	13.4	77.3	0.01	0.002
81	23.71	0.004	2.13	12.1	77.1	0.01	0.002
82	24.13	0.004	1.93	10.7	76.9	0.01	0.002
83	24.54	0.004	1.76	9.4	76.7	0.01	0.002
84	24.86	0.003	1.63	8.0	76.6	0.01	0.002
85	25.37	0.003	1.45	6.7	76.4	0.008	0.001
86	26.02	0.002	1.25	5.3	76.3	0.007	0.001
87	26.67	0.002	1.08	4.0	76.2	0.006	0.001
88	27.51	0.002	0.89	2.7	76.2	0.005	0.0009
89	28.29	0.001	0.74	1.3	76.1	0.004	0.0007
90	29.00	0.001	0.63	0.0	76.1	0.004	0.0006

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - DB844H90-XY 150° Sector

Maximum Permissible Exposure

(MPE):

574 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		250		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.01	0.998	498.85	4361.3	4362.0	0.0009	0.0002
5	1.00	0.794	397.16	870.1	873.4	0.02	0.003
10	4.83	0.329	164.43	431.7	438.4	0.03	0.005
20	18.58	0.014	6.93	209.2	222.6	0.005	0.0008
30	13.22	0.048	23.82	131.9	152.3	0.03	0.006
35	18.96	0.013	6.35	108.7	132.7	0.01	0.002
40	29.97	0.001	0.50	90.7	118.4	0.001	0.0002
45	22.32	0.006	2.93	76.1	107.7	0.008	0.001
50	20.99	0.008	3.98	63.9	99.4	0.01	0.002
55	23.39	0.005	2.29	53.3	92.9	0.009	0.002
60	27.47	0.002	0.90	44.0	87.9	0.004	0.0007
65	25.95	0.003	1.27	35.5	84.0	0.006	0.001
70	23.40	0.005	2.29	27.7	81.0	0.01	0.002
71	23.06	0.005	2.47	26.2	80.5	0.01	0.002
72	22.82	0.005	2.61	24.7	80.0	0.01	0.002
73	22.70	0.005	2.68	23.3	79.6	0.01	0.002
74	22.66	0.005	2.71	21.8	79.2	0.01	0.003
75	22.67	0.005	2.70	20.4	78.8	0.01	0.003
76	22.65	0.005	2.72	19.0	78.5	0.01	0.003
77	22.71	0.005	2.68	17.6	78.1	0.01	0.003
78	22.94	0.005	2.54	16.2	77.8	0.01	0.002
79	23.13	0.005	2.43	14.8	77.6	0.01	0.002
80	23.41	0.005	2.28	13.4	77.3	0.01	0.002
81	23.71	0.004	2.13	12.1	77.1	0.01	0.002
82	24.13	0.004	1.93	10.7	76.9	0.01	0.002
83	24.54	0.004	1.76	9.4	76.7	0.01	0.002
84	24.86	0.003	1.63	8.0	76.6	0.01	0.002
85	25.37	0.003	1.45	6.7	76.4	0.008	0.001
86	26.02	0.002	1.25	5.3	76.3	0.007	0.001
87	26.67	0.002	1.08	4.0	76.2	0.006	0.001
88	27.51	0.002	0.89	2.7	76.2	0.005	0.0009
89	28.29	0.001	0.74	1.3	76.1	0.004	0.0007
90	29.00	0.001	0.63	0.0	76.1	0.004	0.0006

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - DB844H90-XY 270° Sector

Maximum Permissible Exposure

(MPE):

574 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		250		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.01	0.998	498.85	4361.3	4362.0	0.0009	0.0002
5	1.00	0.794	397.16	870.1	873.4	0.02	0.003
10	4.83	0.329	164.43	431.7	438.4	0.03	0.005
20	18.58	0.014	6.93	209.2	222.6	0.005	0.0008
30	13.22	0.048	23.82	131.9	152.3	0.03	0.006
35	18.96	0.013	6.35	108.7	132.7	0.01	0.002
40	29.97	0.001	0.50	90.7	118.4	0.001	0.0002
45	22.32	0.006	2.93	76.1	107.7	0.008	0.001
50	20.99	0.008	3.98	63.9	99.4	0.01	0.002
55	23.39	0.005	2.29	53.3	92.9	0.009	0.002
60	27.47	0.002	0.90	44.0	87.9	0.004	0.0007
65	25.95	0.003	1.27	35.5	84.0	0.006	0.001
70	23.40	0.005	2.29	27.7	81.0	0.01	0.002
71	23.06	0.005	2.47	26.2	80.5	0.01	0.002
72	22.82	0.005	2.61	24.7	80.0	0.01	0.002
73	22.70	0.005	2.68	23.3	79.6	0.01	0.002
74	22.66	0.005	2.71	21.8	79.2	0.01	0.003
75	22.67	0.005	2.70	20.4	78.8	0.01	0.003
76	22.65	0.005	2.72	19.0	78.5	0.01	0.003
77	22.71	0.005	2.68	17.6	78.1	0.01	0.003
78	22.94	0.005	2.54	16.2	77.8	0.01	0.002
79	23.13	0.005	2.43	14.8	77.6	0.01	0.002
80	23.41	0.005	2.28	13.4	77.3	0.01	0.002
81	23.71	0.004	2.13	12.1	77.1	0.01	0.002
82	24.13	0.004	1.93	10.7	76.9	0.01	0.002
83	24.54	0.004	1.76	9.4	76.7	0.01	0.002
84	24.86	0.003	1.63	8.0	76.6	0.01	0.002
85	25.37	0.003	1.45	6.7	76.4	0.008	0.001
86	26.02	0.002	1.25	5.3	76.3	0.007	0.001
87	26.67	0.002	1.08	4.0	76.2	0.006	0.001
88	27.51	0.002	0.89	2.7	76.2	0.005	0.0009
89	28.29	0.001	0.74	1.3	76.1	0.004	0.0007
90	29.00	0.001	0.63	0.0	76.1	0.004	0.0006

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXVSP18-C 0° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		240		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.00	1.000	384.89	4186.8	4187.5	0.0007	0.00007
5	8.32	0.147	56.67	835.3	838.5	0.003	0.0003
10	21.36	0.007	2.81	414.5	420.9	0.0005	0.00005
20	19.70	0.011	4.12	200.8	213.7	0.003	0.0003
30	23.83	0.004	1.59	126.6	146.2	0.002	0.0002
35	21.54	0.007	2.70	104.4	127.4	0.006	0.0006
40	19.81	0.010	4.02	87.1	113.7	0.01	0.001
45	25.69	0.003	1.04	73.1	103.4	0.003	0.0003
50	33.62	0.000	0.17	61.3	95.4	0.0006	0.00006
55	37.20	0.000	0.07	51.2	89.2	0.0003	0.00003
60	30.58	0.001	0.34	42.2	84.4	0.002	0.0002
65	37.66	0.000	0.07	34.1	80.6	0.0003	0.00003
70	34.18	0.000	0.15	26.6	77.8	0.0008	0.00008
71	34.85	0.000	0.13	25.2	77.3	0.0007	0.00007
72	35.84	0.000	0.10	23.8	76.8	0.0006	0.00006
73	36.89	0.000	0.08	22.3	76.4	0.0005	0.00005
74	38.09	0.000	0.06	21.0	76.0	0.0003	0.00003
75	39.71	0.000	0.04	19.6	75.7	0.0002	0.00002
76	41.88	0.000	0.03	18.2	75.3	0.0001	0.00001
77	44.46	0.000	0.01	16.9	75.0	0.00008	0.00001
78	46.86	0.000	0.01	15.5	74.7	0.00005	0
79	47.94	0.000	0.01	14.2	74.4	0.00004	0
80	47.07	0.000	0.01	12.9	74.2	0.00005	0
81	45.09	0.000	0.01	11.6	74.0	0.00007	0.00001
82	43.18	0.000	0.02	10.3	73.8	0.0001	0.00001
83	41.89	0.000	0.03	9.0	73.6	0.0002	0.00002
84	41.17	0.000	0.03	7.7	73.5	0.0002	0.00002
85	40.76	0.000	0.03	6.4	73.4	0.0002	0.00002
86	40.64	0.000	0.03	5.1	73.3	0.0002	0.00002
87	41.23	0.000	0.03	3.8	73.2	0.0002	0.00002
88	43.12	0.000	0.02	2.6	73.1	0.0001	0.00001
89	47.05	0.000	0.01	1.3	73.1	0.00005	0
90	54.93	0.000	0.00	0.0	73.1	0.00001	0

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXVSP18-C 140° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		240		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.00	1.000	384.89	4186.8	4187.5	0.0007	0.00007
5	8.32	0.147	56.67	835.3	838.5	0.003	0.0003
10	21.36	0.007	2.81	414.5	420.9	0.0005	0.00005
20	19.70	0.011	4.12	200.8	213.7	0.003	0.0003
30	23.83	0.004	1.59	126.6	146.2	0.002	0.0002
35	21.54	0.007	2.70	104.4	127.4	0.006	0.0006
40	19.81	0.010	4.02	87.1	113.7	0.01	0.001
45	25.69	0.003	1.04	73.1	103.4	0.003	0.0003
50	33.62	0.000	0.17	61.3	95.4	0.0006	0.00006
55	37.20	0.000	0.07	51.2	89.2	0.0003	0.00003
60	30.58	0.001	0.34	42.2	84.4	0.002	0.0002
65	37.66	0.000	0.07	34.1	80.6	0.0003	0.00003
70	34.18	0.000	0.15	26.6	77.8	0.0008	0.00008
71	34.85	0.000	0.13	25.2	77.3	0.0007	0.00007
72	35.84	0.000	0.10	23.8	76.8	0.0006	0.00006
73	36.89	0.000	0.08	22.3	76.4	0.0005	0.00005
74	38.09	0.000	0.06	21.0	76.0	0.0003	0.00003
75	39.71	0.000	0.04	19.6	75.7	0.0002	0.00002
76	41.88	0.000	0.03	18.2	75.3	0.0001	0.00001
77	44.46	0.000	0.01	16.9	75.0	0.00008	0.00001
78	46.86	0.000	0.01	15.5	74.7	0.00005	0
79	47.94	0.000	0.01	14.2	74.4	0.00004	0
80	47.07	0.000	0.01	12.9	74.2	0.00005	0
81	45.09	0.000	0.01	11.6	74.0	0.00007	0.00001
82	43.18	0.000	0.02	10.3	73.8	0.0001	0.00001
83	41.89	0.000	0.03	9.0	73.6	0.0002	0.00002
84	41.17	0.000	0.03	7.7	73.5	0.0002	0.00002
85	40.76	0.000	0.03	6.4	73.4	0.0002	0.00002
86	40.64	0.000	0.03	5.1	73.3	0.0002	0.00002
87	41.23	0.000	0.03	3.8	73.2	0.0002	0.00002
88	43.12	0.000	0.02	2.6	73.1	0.0001	0.00001
89	47.05	0.000	0.01	1.3	73.1	0.00005	0
90	54.93	0.000	0.00	0.0	73.1	0.00001	0

Sprint
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APXVSP18-C 220° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		240		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.00	1.000	384.89	4186.8	4187.5	0.0007	0.00007
5	8.32	0.147	56.67	835.3	838.5	0.003	0.0003
10	21.36	0.007	2.81	414.5	420.9	0.0005	0.00005
20	19.70	0.011	4.12	200.8	213.7	0.003	0.0003
30	23.83	0.004	1.59	126.6	146.2	0.002	0.0002
35	21.54	0.007	2.70	104.4	127.4	0.006	0.0006
40	19.81	0.010	4.02	87.1	113.7	0.01	0.001
45	25.69	0.003	1.04	73.1	103.4	0.003	0.0003
50	33.62	0.000	0.17	61.3	95.4	0.0006	0.00006
55	37.20	0.000	0.07	51.2	89.2	0.0003	0.00003
60	30.58	0.001	0.34	42.2	84.4	0.002	0.0002
65	37.66	0.000	0.07	34.1	80.6	0.0003	0.00003
70	34.18	0.000	0.15	26.6	77.8	0.0008	0.00008
71	34.85	0.000	0.13	25.2	77.3	0.0007	0.00007
72	35.84	0.000	0.10	23.8	76.8	0.0006	0.00006
73	36.89	0.000	0.08	22.3	76.4	0.0005	0.00005
74	38.09	0.000	0.06	21.0	76.0	0.0003	0.00003
75	39.71	0.000	0.04	19.6	75.7	0.0002	0.00002
76	41.88	0.000	0.03	18.2	75.3	0.0001	0.00001
77	44.46	0.000	0.01	16.9	75.0	0.00008	0.00001
78	46.86	0.000	0.01	15.5	74.7	0.00005	0
79	47.94	0.000	0.01	14.2	74.4	0.00004	0
80	47.07	0.000	0.01	12.9	74.2	0.00005	0
81	45.09	0.000	0.01	11.6	74.0	0.00007	0.00001
82	43.18	0.000	0.02	10.3	73.8	0.0001	0.00001
83	41.89	0.000	0.03	9.0	73.6	0.0002	0.00002
84	41.17	0.000	0.03	7.7	73.5	0.0002	0.00002
85	40.76	0.000	0.03	6.4	73.4	0.0002	0.00002
86	40.64	0.000	0.03	5.1	73.3	0.0002	0.00002
87	41.23	0.000	0.03	3.8	73.2	0.0002	0.00002
88	43.12	0.000	0.02	2.6	73.1	0.0001	0.00001
89	47.05	0.000	0.01	1.3	73.1	0.00005	0
90	54.93	0.000	0.00	0.0	73.1	0.00001	0

T-Mobile
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APX16PV-16PVL 90° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		220		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	24.18	0.004	1.17	3837.9	3838.5	0	0
5	4.82	0.330	100.69	765.7	768.6	0.006	0.0006
10	0.00	1.000	305.47	379.9	385.8	0.07	0.007
20	20.58	0.009	2.67	184.1	195.9	0.002	0.0002
30	16.72	0.021	6.50	116.0	134.0	0.01	0.001
35	26.05	0.002	0.76	95.7	116.8	0.002	0.0002
40	23.03	0.005	1.52	79.8	104.2	0.005	0.0005
45	28.76	0.001	0.41	67.0	94.7	0.002	0.0002
50	27.29	0.002	0.57	56.2	87.4	0.002	0.0002
55	28.11	0.002	0.47	46.9	81.8	0.002	0.0002
60	36.33	0.000	0.07	38.7	77.4	0.0004	0.00004
65	27.17	0.002	0.59	31.2	73.9	0.004	0.0004
70	26.28	0.002	0.72	24.4	71.3	0.005	0.0005
71	26.32	0.002	0.71	23.1	70.8	0.005	0.0005
72	26.96	0.002	0.62	21.8	70.4	0.004	0.0004
73	26.97	0.002	0.61	20.5	70.0	0.004	0.0004
74	27.46	0.002	0.55	19.2	69.7	0.004	0.0004
75	28.28	0.001	0.45	18.0	69.4	0.003	0.0003
76	28.45	0.001	0.44	16.7	69.0	0.003	0.0003
77	29.02	0.001	0.38	15.5	68.8	0.003	0.0003
78	29.82	0.001	0.32	14.2	68.5	0.002	0.0002
79	30.06	0.001	0.30	13.0	68.2	0.002	0.0002
80	30.35	0.001	0.28	11.8	68.0	0.002	0.0002
81	30.87	0.001	0.25	10.6	67.8	0.002	0.0002
82	31.33	0.001	0.22	9.4	67.6	0.002	0.0002
83	31.51	0.001	0.22	8.2	67.5	0.002	0.0002
84	31.83	0.001	0.20	7.0	67.4	0.001	0.0001
85	32.34	0.001	0.18	5.9	67.2	0.001	0.0001
86	32.86	0.001	0.16	4.7	67.2	0.001	0.0001
87	33.42	0.000	0.14	3.5	67.1	0.001	0.0001
88	33.59	0.000	0.13	2.3	67.0	0.001	0.0001
89	34.77	0.000	0.10	1.2	67.0	0.0008	0.00008
90	34.42	0.000	0.11	0.0	67.0	0.0008	0.00008

T-Mobile
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APX16PV-16PVL 210° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		220		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	24.18	0.004	1.17	3837.9	3838.5	0	0
5	4.82	0.330	100.69	765.7	768.6	0.006	0.0006
10	0.00	1.000	305.47	379.9	385.8	0.07	0.007
20	20.58	0.009	2.67	184.1	195.9	0.002	0.0002
30	16.72	0.021	6.50	116.0	134.0	0.01	0.001
35	26.05	0.002	0.76	95.7	116.8	0.002	0.0002
40	23.03	0.005	1.52	79.8	104.2	0.005	0.0005
45	28.76	0.001	0.41	67.0	94.7	0.002	0.0002
50	27.29	0.002	0.57	56.2	87.4	0.002	0.0002
55	28.11	0.002	0.47	46.9	81.8	0.002	0.0002
60	36.33	0.000	0.07	38.7	77.4	0.0004	0.00004
65	27.17	0.002	0.59	31.2	73.9	0.004	0.0004
70	26.28	0.002	0.72	24.4	71.3	0.005	0.0005
71	26.32	0.002	0.71	23.1	70.8	0.005	0.0005
72	26.96	0.002	0.62	21.8	70.4	0.004	0.0004
73	26.97	0.002	0.61	20.5	70.0	0.004	0.0004
74	27.46	0.002	0.55	19.2	69.7	0.004	0.0004
75	28.28	0.001	0.45	18.0	69.4	0.003	0.0003
76	28.45	0.001	0.44	16.7	69.0	0.003	0.0003
77	29.02	0.001	0.38	15.5	68.8	0.003	0.0003
78	29.82	0.001	0.32	14.2	68.5	0.002	0.0002
79	30.06	0.001	0.30	13.0	68.2	0.002	0.0002
80	30.35	0.001	0.28	11.8	68.0	0.002	0.0002
81	30.87	0.001	0.25	10.6	67.8	0.002	0.0002
82	31.33	0.001	0.22	9.4	67.6	0.002	0.0002
83	31.51	0.001	0.22	8.2	67.5	0.002	0.0002
84	31.83	0.001	0.20	7.0	67.4	0.001	0.0001
85	32.34	0.001	0.18	5.9	67.2	0.001	0.0001
86	32.86	0.001	0.16	4.7	67.2	0.001	0.0001
87	33.42	0.000	0.14	3.5	67.1	0.001	0.0001
88	33.59	0.000	0.13	2.3	67.0	0.001	0.0001
89	34.77	0.000	0.10	1.2	67.0	0.0008	0.00008
90	34.42	0.000	0.11	0.0	67.0	0.0008	0.00008

T-Mobile
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RFS - APX16PV-16PVL 330° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		220		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	24.18	0.004	1.17	3837.9	3838.5	0	0
5	4.82	0.330	100.69	765.7	768.6	0.006	0.0006
10	0.00	1.000	305.47	379.9	385.8	0.07	0.007
20	20.58	0.009	2.67	184.1	195.9	0.002	0.0002
30	16.72	0.021	6.50	116.0	134.0	0.01	0.001
35	26.05	0.002	0.76	95.7	116.8	0.002	0.0002
40	23.03	0.005	1.52	79.8	104.2	0.005	0.0005
45	28.76	0.001	0.41	67.0	94.7	0.002	0.0002
50	27.29	0.002	0.57	56.2	87.4	0.002	0.0002
55	28.11	0.002	0.47	46.9	81.8	0.002	0.0002
60	36.33	0.000	0.07	38.7	77.4	0.0004	0.00004
65	27.17	0.002	0.59	31.2	73.9	0.004	0.0004
70	26.28	0.002	0.72	24.4	71.3	0.005	0.0005
71	26.32	0.002	0.71	23.1	70.8	0.005	0.0005
72	26.96	0.002	0.62	21.8	70.4	0.004	0.0004
73	26.97	0.002	0.61	20.5	70.0	0.004	0.0004
74	27.46	0.002	0.55	19.2	69.7	0.004	0.0004
75	28.28	0.001	0.45	18.0	69.4	0.003	0.0003
76	28.45	0.001	0.44	16.7	69.0	0.003	0.0003
77	29.02	0.001	0.38	15.5	68.8	0.003	0.0003
78	29.82	0.001	0.32	14.2	68.5	0.002	0.0002
79	30.06	0.001	0.30	13.0	68.2	0.002	0.0002
80	30.35	0.001	0.28	11.8	68.0	0.002	0.0002
81	30.87	0.001	0.25	10.6	67.8	0.002	0.0002
82	31.33	0.001	0.22	9.4	67.6	0.002	0.0002
83	31.51	0.001	0.22	8.2	67.5	0.002	0.0002
84	31.83	0.001	0.20	7.0	67.4	0.001	0.0001
85	32.34	0.001	0.18	5.9	67.2	0.001	0.0001
86	32.86	0.001	0.16	4.7	67.2	0.001	0.0001
87	33.42	0.000	0.14	3.5	67.1	0.001	0.0001
88	33.59	0.000	0.13	2.3	67.0	0.001	0.0001
89	34.77	0.000	0.10	1.2	67.0	0.0008	0.00008
90	34.42	0.000	0.11	0.0	67.0	0.0008	0.00008

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
SINCLAIR - SC381-HF1LDF-380 0° Sector

Maximum Permissible Exposure

(MPE):

253 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		315		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	466.63	5495.2	5496.1	0.0005	0.0002
5	2.80	0.525	262.40	1096.4	1100.6	0.007	0.003
10	13.40	0.046	22.85	544.0	552.4	0.003	0.001
20	12.00	0.063	31.55	263.5	280.4	0.01	0.005
30	19.10	0.012	6.15	166.1	191.8	0.006	0.002
35	14.40	0.036	18.15	137.0	167.2	0.02	0.009
40	14.60	0.035	17.34	114.3	149.2	0.03	0.01
45	22.40	0.006	2.88	95.9	135.6	0.005	0.002
50	24.10	0.004	1.94	80.5	125.2	0.004	0.002
55	18.20	0.015	7.57	67.2	117.1	0.02	0.007
60	19.00	0.013	6.29	55.4	110.8	0.02	0.007
65	20.60	0.009	4.36	44.7	105.8	0.01	0.005
70	28.30	0.001	0.74	34.9	102.1	0.002	0.001
71	29.80	0.001	0.52	33.0	101.4	0.002	0.0007
72	31.80	0.001	0.33	31.2	100.9	0.001	0.0004
73	33.20	0.000	0.24	29.3	100.3	0.0008	0.0003
74	33.50	0.000	0.22	27.5	99.8	0.0007	0.0003
75	33.70	0.000	0.21	25.7	99.3	0.0007	0.0003
76	34.00	0.000	0.20	23.9	98.9	0.0007	0.0003
77	33.60	0.000	0.22	22.1	98.4	0.0008	0.0003
78	33.00	0.001	0.25	20.4	98.1	0.0009	0.0003
79	32.80	0.001	0.26	18.6	97.7	0.001	0.0004
80	32.80	0.001	0.26	16.9	97.4	0.001	0.0004
81	33.20	0.000	0.24	15.2	97.1	0.0008	0.0003
82	33.90	0.000	0.20	13.5	96.9	0.0007	0.0003
83	35.00	0.000	0.16	11.8	96.6	0.0006	0.0002
84	36.10	0.000	0.12	10.1	96.4	0.0004	0.0002
85	36.80	0.000	0.10	8.4	96.3	0.0004	0.0001
86	37.90	0.000	0.08	6.7	96.2	0.0003	0.0001
87	39.20	0.000	0.06	5.0	96.0	0.0002	0.00009
88	40.50	0.000	0.04	3.4	96.0	0.0002	0.00006
89	42.90	0.000	0.03	1.7	95.9	0.0001	0.00004
90	46.20	0.000	0.01	0.0	95.9	0.00004	0.00002

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Generic - Microwave Dish 0° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
1000		204		0			
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	1.00	0.794	485.29	3558.8	3559.4	0.001	0.0001
5	12.00	0.063	38.55	710.0	712.7	0.003	0.0003
10	18.00	0.016	9.68	352.3	357.7	0.003	0.0003
20	25.00	0.003	1.93	170.7	181.6	0.002	0.0002
30	29.00	0.001	0.77	107.6	124.2	0.002	0.0002
35	29.00	0.001	0.77	88.7	108.3	0.002	0.0002
40	29.00	0.001	0.77	74.0	96.6	0.003	0.0003
45	29.00	0.001	0.77	62.1	87.8	0.003	0.0003
50	29.00	0.001	0.77	52.1	81.1	0.004	0.0004
55	29.00	0.001	0.77	43.5	75.8	0.004	0.0004
60	29.00	0.001	0.77	35.9	71.7	0.005	0.0005
65	29.00	0.001	0.77	29.0	68.5	0.005	0.0005
70	29.00	0.001	0.77	22.6	66.1	0.006	0.0006
71	29.00	0.001	0.77	21.4	65.7	0.006	0.0006
72	29.00	0.001	0.77	20.2	65.3	0.006	0.0006
73	29.00	0.001	0.77	19.0	65.0	0.006	0.0006
74	29.00	0.001	0.77	17.8	64.6	0.006	0.0006
75	29.00	0.001	0.77	16.6	64.3	0.006	0.0006
76	29.00	0.001	0.77	15.5	64.0	0.006	0.0006
77	29.00	0.001	0.77	14.3	63.8	0.006	0.0006
78	29.00	0.001	0.77	13.2	63.5	0.006	0.0006
79	29.00	0.001	0.77	12.1	63.3	0.006	0.0006
80	29.00	0.001	0.77	11.0	63.1	0.006	0.0006
81	29.00	0.001	0.77	9.8	62.9	0.006	0.0006
82	29.00	0.001	0.77	8.7	62.7	0.007	0.0007
83	29.00	0.001	0.77	7.6	62.6	0.007	0.0007
84	29.00	0.001	0.77	6.5	62.5	0.007	0.0007
85	29.00	0.001	0.77	5.4	62.4	0.007	0.0007
86	29.00	0.001	0.77	4.3	62.3	0.007	0.0007
87	29.00	0.001	0.77	3.3	62.2	0.007	0.0007
88	29.00	0.001	0.77	2.2	62.2	0.007	0.0007
89	29.00	0.001	0.77	1.1	62.1	0.007	0.0007
90	29.00	0.001	0.77	0.0	62.1	0.007	0.0007

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
SINCLAIR - SC281-HF2LDF 225° Sector

Maximum Permissible Exposure

(MPE):

200 µW/cm²

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		344		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm ²)	Percent of MPE
1	0.30	0.933	466.63	6001.1	6002.0	0.0004	0.0002
5	1.80	0.661	330.35	1197.3	1201.9	0.008	0.004
10	6.30	0.234	117.21	594.1	603.2	0.01	0.005
20	18.20	0.015	7.57	287.8	306.3	0.003	0.001
30	12.30	0.059	29.44	181.4	209.5	0.02	0.01
35	14.70	0.034	16.94	149.6	182.6	0.02	0.008
40	25.20	0.003	1.51	124.8	163.0	0.002	0.001
45	26.20	0.002	1.20	104.8	148.1	0.002	0.001
50	17.90	0.016	8.11	87.9	136.7	0.01	0.007
55	16.20	0.024	11.99	73.4	127.9	0.02	0.01
60	16.00	0.025	12.56	60.5	121.0	0.03	0.01
65	17.30	0.019	9.31	48.8	115.6	0.02	0.01
70	19.20	0.012	6.01	38.1	111.5	0.02	0.008
71	19.50	0.011	5.61	36.1	110.8	0.02	0.008
72	19.80	0.010	5.24	34.0	110.1	0.01	0.007
73	20.20	0.010	4.77	32.0	109.5	0.01	0.007
74	20.90	0.008	4.06	30.0	109.0	0.01	0.006
75	21.80	0.007	3.30	28.1	108.4	0.01	0.005
76	22.60	0.005	2.75	26.1	108.0	0.008	0.004
77	23.30	0.005	2.34	24.2	107.5	0.007	0.003
78	24.10	0.004	1.94	22.3	107.1	0.006	0.003
79	24.80	0.003	1.66	20.4	106.7	0.005	0.002
80	25.40	0.003	1.44	18.5	106.4	0.004	0.002
81	26.10	0.002	1.23	16.6	106.1	0.004	0.002
82	26.80	0.002	1.04	14.7	105.8	0.003	0.002
83	27.80	0.002	0.83	12.9	105.5	0.002	0.001
84	28.80	0.001	0.66	11.0	105.3	0.002	0.001
85	30.00	0.001	0.50	9.2	105.2	0.002	0.0008
86	31.30	0.001	0.37	7.3	105.0	0.001	0.0006
87	32.40	0.001	0.29	5.5	104.9	0.0009	0.0004
88	34.20	0.000	0.19	3.7	104.8	0.0006	0.0003
89	37.70	0.000	0.08	1.8	104.8	0.0003	0.0001
90	41.80	0.000	0.03	0.0	104.8	0.0001	0.00005

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
SINCLAIR - SC281-HF2LDF 0° Sector

Maximum Permissible Exposure

(MPE):

200 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		320		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	466.63	5582.5	5583.3	0.0005	0.0002
5	1.80	0.661	330.35	1113.8	1118.0	0.009	0.004
10	6.30	0.234	117.21	552.6	561.2	0.01	0.006
20	18.20	0.015	7.57	267.7	284.9	0.003	0.002
30	12.30	0.059	29.44	168.8	194.9	0.03	0.01
35	14.70	0.034	16.94	139.2	169.9	0.02	0.01
40	25.20	0.003	1.51	116.1	151.6	0.002	0.001
45	26.20	0.002	1.20	97.4	137.8	0.002	0.001
50	17.90	0.016	8.11	81.8	127.2	0.02	0.008
55	16.20	0.024	11.99	68.2	119.0	0.03	0.01
60	16.00	0.025	12.56	56.3	112.5	0.03	0.02
65	17.30	0.019	9.31	45.4	107.5	0.03	0.01
70	19.20	0.012	6.01	35.5	103.7	0.02	0.01
71	19.50	0.011	5.61	33.6	103.1	0.02	0.009
72	19.80	0.010	5.24	31.7	102.5	0.02	0.008
73	20.20	0.010	4.77	29.8	101.9	0.02	0.008
74	20.90	0.008	4.06	27.9	101.4	0.01	0.007
75	21.80	0.007	3.30	26.1	100.9	0.01	0.005
76	22.60	0.005	2.75	24.3	100.4	0.01	0.005
77	23.30	0.005	2.34	22.5	100.0	0.008	0.004
78	24.10	0.004	1.94	20.7	99.6	0.007	0.003
79	24.80	0.003	1.66	18.9	99.3	0.006	0.003
80	25.40	0.003	1.44	17.2	99.0	0.005	0.002
81	26.10	0.002	1.23	15.4	98.7	0.004	0.002
82	26.80	0.002	1.04	13.7	98.4	0.004	0.002
83	27.80	0.002	0.83	12.0	98.2	0.003	0.001
84	28.80	0.001	0.66	10.2	98.0	0.002	0.001
85	30.00	0.001	0.50	8.5	97.8	0.002	0.0009
86	31.30	0.001	0.37	6.8	97.7	0.001	0.0006
87	32.40	0.001	0.29	5.1	97.6	0.001	0.0005
88	34.20	0.000	0.19	3.4	97.5	0.0007	0.0003
89	37.70	0.000	0.08	1.7	97.5	0.0003	0.0001
90	41.80	0.000	0.03	0.0	97.4	0.0001	0.00006

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
SINCLAIR - SC281-HF2LDF 0° Sector

Maximum Permissible Exposure

(MPE):

200 µW/cm²

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		285		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm ²)	Percent of MPE
1	0.30	0.933	466.63	4971.9	4972.6	0.0006	0.0003
5	1.80	0.661	330.35	992.0	995.7	0.01	0.006
10	6.30	0.234	117.21	492.2	499.8	0.02	0.008
20	18.20	0.015	7.57	238.4	253.7	0.004	0.002
30	12.30	0.059	29.44	150.3	173.6	0.03	0.02
35	14.70	0.034	16.94	123.9	151.3	0.02	0.01
40	25.20	0.003	1.51	103.4	135.0	0.003	0.001
45	26.20	0.002	1.20	86.8	122.7	0.003	0.001
50	17.90	0.016	8.11	72.8	113.3	0.02	0.01
55	16.20	0.024	11.99	60.8	106.0	0.04	0.02
60	16.00	0.025	12.56	50.1	100.2	0.04	0.02
65	17.30	0.019	9.31	40.5	95.8	0.03	0.02
70	19.20	0.012	6.01	31.6	92.4	0.02	0.01
71	19.50	0.011	5.61	29.9	91.8	0.02	0.01
72	19.80	0.010	5.24	28.2	91.2	0.02	0.01
73	20.20	0.010	4.77	26.5	90.8	0.02	0.01
74	20.90	0.008	4.06	24.9	90.3	0.02	0.008
75	21.80	0.007	3.30	23.2	89.8	0.01	0.007
76	22.60	0.005	2.75	21.6	89.4	0.01	0.006
77	23.30	0.005	2.34	20.0	89.1	0.01	0.005
78	24.10	0.004	1.94	18.4	88.7	0.008	0.004
79	24.80	0.003	1.66	16.9	88.4	0.007	0.004
80	25.40	0.003	1.44	15.3	88.1	0.006	0.003
81	26.10	0.002	1.23	13.8	87.9	0.005	0.003
82	26.80	0.002	1.04	12.2	87.6	0.005	0.002
83	27.80	0.002	0.83	10.7	87.4	0.004	0.002
84	28.80	0.001	0.66	9.1	87.3	0.003	0.001
85	30.00	0.001	0.50	7.6	87.1	0.002	0.001
86	31.30	0.001	0.37	6.1	87.0	0.002	0.0008
87	32.40	0.001	0.29	4.6	86.9	0.001	0.0006
88	34.20	0.000	0.19	3.0	86.8	0.0008	0.0004
89	37.70	0.000	0.08	1.5	86.8	0.0004	0.0002
90	41.80	0.000	0.03	0.0	86.8	0.0001	0.00007

US Treasury
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - DB616E 0° Sector

Maximum Permissible Exposure

(MPE):

200 µW/cm²

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		500		204		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm ²)	Percent of MPE
1	0.20	0.955	477.50	3558.8	3559.4	0.001	0.0006
5	1.10	0.776	388.12	710.0	712.7	0.03	0.01
10	3.70	0.427	213.29	352.3	357.7	0.06	0.03
20	9.50	0.112	56.10	170.7	181.6	0.06	0.03
30	12.10	0.062	30.83	107.6	124.2	0.07	0.03
35	17.20	0.019	9.53	88.7	108.3	0.03	0.01
40	28.20	0.002	0.76	74.0	96.6	0.003	0.001
45	21.80	0.007	3.30	62.1	87.8	0.01	0.007
50	18.00	0.016	7.92	52.1	81.1	0.04	0.02
55	17.20	0.019	9.53	43.5	75.8	0.06	0.03
60	18.00	0.016	7.92	35.9	71.7	0.05	0.03
65	19.60	0.011	5.48	29.0	68.5	0.04	0.02
70	21.50	0.007	3.54	22.6	66.1	0.03	0.01
71	22.10	0.006	3.08	21.4	65.7	0.02	0.01
72	22.50	0.006	2.81	20.2	65.3	0.02	0.01
73	23.20	0.005	2.39	19.0	65.0	0.02	0.01
74	23.90	0.004	2.04	17.8	64.6	0.02	0.008
75	24.80	0.003	1.66	16.6	64.3	0.01	0.007
76	25.40	0.003	1.44	15.5	64.0	0.01	0.006
77	26.50	0.002	1.12	14.3	63.8	0.01	0.005
78	27.60	0.002	0.87	13.2	63.5	0.007	0.004
79	28.90	0.001	0.64	12.1	63.3	0.005	0.003
80	30.20	0.001	0.48	11.0	63.1	0.004	0.002
81	31.90	0.001	0.32	9.8	62.9	0.003	0.001
82	33.30	0.000	0.23	8.7	62.7	0.002	0.001
83	34.90	0.000	0.16	7.6	62.6	0.001	0.0007
84	35.10	0.000	0.15	6.5	62.5	0.001	0.0007
85	34.90	0.000	0.16	5.4	62.4	0.001	0.0007
86	33.90	0.000	0.20	4.3	62.3	0.002	0.0009
87	32.40	0.001	0.29	3.3	62.2	0.002	0.001
88	31.10	0.001	0.39	2.2	62.2	0.003	0.002
89	30.00	0.001	0.50	1.1	62.1	0.004	0.002
90	29.20	0.001	0.60	0.0	62.1	0.005	0.003

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RYMSA - MG D3-800T0 30° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	359.20	3140.1	3140.6	0.001	0.0001
5	10.00	0.100	38.49	626.5	628.9	0.003	0.0003
10	19.50	0.011	4.32	310.8	315.6	0.001	0.0001
20	25.40	0.003	1.11	150.6	160.2	0.001	0.0001
30	22.70	0.005	2.07	94.9	109.6	0.006	0.0006
35	24.20	0.004	1.46	78.3	95.6	0.005	0.0005
40	27.90	0.002	0.62	65.3	85.3	0.003	0.0003
45	30.90	0.001	0.31	54.8	77.5	0.002	0.0002
50	30.20	0.001	0.37	46.0	71.6	0.002	0.0002
55	26.50	0.002	0.86	38.4	66.9	0.006	0.0006
60	35.80	0.000	0.10	31.6	63.3	0.0008	0.00008
65	27.80	0.002	0.64	25.6	60.5	0.006	0.0006
70	27.20	0.002	0.73	20.0	58.3	0.007	0.0007
71	27.40	0.002	0.70	18.9	58.0	0.007	0.0007
72	28.20	0.002	0.58	17.8	57.6	0.006	0.0006
73	29.10	0.001	0.47	16.8	57.3	0.005	0.0005
74	30.00	0.001	0.38	15.7	57.0	0.004	0.0004
75	31.00	0.001	0.31	14.7	56.8	0.003	0.0003
76	31.60	0.001	0.27	13.7	56.5	0.003	0.0003
77	31.90	0.001	0.25	12.6	56.2	0.003	0.0003
78	31.80	0.001	0.25	11.6	56.0	0.003	0.0003
79	31.30	0.001	0.29	10.6	55.8	0.003	0.0003
80	30.90	0.001	0.31	9.7	55.7	0.003	0.0003
81	30.40	0.001	0.35	8.7	55.5	0.004	0.0004
82	29.60	0.001	0.42	7.7	55.4	0.005	0.0005
83	28.60	0.001	0.53	6.7	55.2	0.006	0.0006
84	27.70	0.002	0.65	5.8	55.1	0.007	0.0007
85	27.00	0.002	0.77	4.8	55.0	0.008	0.0008
86	26.30	0.002	0.90	3.8	54.9	0.01	0.001
87	26.00	0.003	0.97	2.9	54.9	0.01	0.001
88	25.90	0.003	0.99	1.9	54.8	0.01	0.001
89	25.90	0.003	0.99	1.0	54.8	0.01	0.001
90	26.00	0.003	0.97	0.0	54.8	0.01	0.001

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RYMSA - MG D3-800T0 150° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	359.20	3140.1	3140.6	0.001	0.0001
5	10.00	0.100	38.49	626.5	628.9	0.003	0.0003
10	19.50	0.011	4.32	310.8	315.6	0.001	0.0001
20	25.40	0.003	1.11	150.6	160.2	0.001	0.0001
30	22.70	0.005	2.07	94.9	109.6	0.006	0.0006
35	24.20	0.004	1.46	78.3	95.6	0.005	0.0005
40	27.90	0.002	0.62	65.3	85.3	0.003	0.0003
45	30.90	0.001	0.31	54.8	77.5	0.002	0.0002
50	30.20	0.001	0.37	46.0	71.6	0.002	0.0002
55	26.50	0.002	0.86	38.4	66.9	0.006	0.0006
60	35.80	0.000	0.10	31.6	63.3	0.0008	0.00008
65	27.80	0.002	0.64	25.6	60.5	0.006	0.0006
70	27.20	0.002	0.73	20.0	58.3	0.007	0.0007
71	27.40	0.002	0.70	18.9	58.0	0.007	0.0007
72	28.20	0.002	0.58	17.8	57.6	0.006	0.0006
73	29.10	0.001	0.47	16.8	57.3	0.005	0.0005
74	30.00	0.001	0.38	15.7	57.0	0.004	0.0004
75	31.00	0.001	0.31	14.7	56.8	0.003	0.0003
76	31.60	0.001	0.27	13.7	56.5	0.003	0.0003
77	31.90	0.001	0.25	12.6	56.2	0.003	0.0003
78	31.80	0.001	0.25	11.6	56.0	0.003	0.0003
79	31.30	0.001	0.29	10.6	55.8	0.003	0.0003
80	30.90	0.001	0.31	9.7	55.7	0.003	0.0003
81	30.40	0.001	0.35	8.7	55.5	0.004	0.0004
82	29.60	0.001	0.42	7.7	55.4	0.005	0.0005
83	28.60	0.001	0.53	6.7	55.2	0.006	0.0006
84	27.70	0.002	0.65	5.8	55.1	0.007	0.0007
85	27.00	0.002	0.77	4.8	55.0	0.008	0.0008
86	26.30	0.002	0.90	3.8	54.9	0.01	0.001
87	26.00	0.003	0.97	2.9	54.9	0.01	0.001
88	25.90	0.003	0.99	1.9	54.8	0.01	0.001
89	25.90	0.003	0.99	1.0	54.8	0.01	0.001
90	26.00	0.003	0.97	0.0	54.8	0.01	0.001

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RYMSA - MG D3-800T0 270° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		630	Height (feet)	180	Downtilt (Degrees)	0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	359.20	3140.1	3140.6	0.001	0.0001
5	10.00	0.100	38.49	626.5	628.9	0.003	0.0003
10	19.50	0.011	4.32	310.8	315.6	0.001	0.0001
20	25.40	0.003	1.11	150.6	160.2	0.001	0.0001
30	22.70	0.005	2.07	94.9	109.6	0.006	0.0006
35	24.20	0.004	1.46	78.3	95.6	0.005	0.0005
40	27.90	0.002	0.62	65.3	85.3	0.003	0.0003
45	30.90	0.001	0.31	54.8	77.5	0.002	0.0002
50	30.20	0.001	0.37	46.0	71.6	0.002	0.0002
55	26.50	0.002	0.86	38.4	66.9	0.006	0.0006
60	35.80	0.000	0.10	31.6	63.3	0.0008	0.00008
65	27.80	0.002	0.64	25.6	60.5	0.006	0.0006
70	27.20	0.002	0.73	20.0	58.3	0.007	0.0007
71	27.40	0.002	0.70	18.9	58.0	0.007	0.0007
72	28.20	0.002	0.58	17.8	57.6	0.006	0.0006
73	29.10	0.001	0.47	16.8	57.3	0.005	0.0005
74	30.00	0.001	0.38	15.7	57.0	0.004	0.0004
75	31.00	0.001	0.31	14.7	56.8	0.003	0.0003
76	31.60	0.001	0.27	13.7	56.5	0.003	0.0003
77	31.90	0.001	0.25	12.6	56.2	0.003	0.0003
78	31.80	0.001	0.25	11.6	56.0	0.003	0.0003
79	31.30	0.001	0.29	10.6	55.8	0.003	0.0003
80	30.90	0.001	0.31	9.7	55.7	0.003	0.0003
81	30.40	0.001	0.35	8.7	55.5	0.004	0.0004
82	29.60	0.001	0.42	7.7	55.4	0.005	0.0005
83	28.60	0.001	0.53	6.7	55.2	0.006	0.0006
84	27.70	0.002	0.65	5.8	55.1	0.007	0.0007
85	27.00	0.002	0.77	4.8	55.0	0.008	0.0008
86	26.30	0.002	0.90	3.8	54.9	0.01	0.001
87	26.00	0.003	0.97	2.9	54.9	0.01	0.001
88	25.90	0.003	0.99	1.9	54.8	0.01	0.001
89	25.90	0.003	0.99	1.0	54.8	0.01	0.001
90	26.00	0.003	0.97	0.0	54.8	0.01	0.001

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Powerwave - P65-16-XL-2 30° Sector

Maximum Permissible Exposure

(MPE):

517 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.70	0.851	536.22	3140.1	3140.6	0.002	0.0004
5	0.10	0.977	615.66	626.5	628.9	0.05	0.01
10	2.50	0.562	354.27	310.8	315.6	0.12	0.02
20	9.50	0.112	70.69	150.6	160.2	0.09	0.02
30	18.10	0.015	9.76	94.9	109.6	0.03	0.005
35	22.80	0.005	3.31	78.3	95.6	0.01	0.002
40	18.90	0.013	8.12	65.3	85.3	0.04	0.007
45	24.00	0.004	2.51	54.8	77.5	0.01	0.003
50	30.20	0.001	0.60	46.0	71.6	0.004	0.0008
55	24.30	0.004	2.34	38.4	66.9	0.02	0.003
60	25.80	0.003	1.66	31.6	63.3	0.01	0.003
65	31.60	0.001	0.44	25.6	60.5	0.004	0.0008
70	36.60	0.000	0.14	20.0	58.3	0.001	0.0003
71	37.00	0.000	0.13	18.9	58.0	0.001	0.0002
72	37.30	0.000	0.12	17.8	57.6	0.001	0.0002
73	37.40	0.000	0.11	16.8	57.3	0.001	0.0002
74	37.50	0.000	0.11	15.7	57.0	0.001	0.0002
75	37.40	0.000	0.11	14.7	56.8	0.001	0.0002
76	37.20	0.000	0.12	13.7	56.5	0.001	0.0002
77	36.90	0.000	0.13	12.6	56.2	0.001	0.0003
78	36.60	0.000	0.14	11.6	56.0	0.001	0.0003
79	36.30	0.000	0.15	10.6	55.8	0.002	0.0003
80	36.00	0.000	0.16	9.7	55.7	0.002	0.0003
81	35.80	0.000	0.17	8.7	55.5	0.002	0.0003
82	35.70	0.000	0.17	7.7	55.4	0.002	0.0004
83	35.70	0.000	0.17	6.7	55.2	0.002	0.0004
84	35.90	0.000	0.16	5.8	55.1	0.002	0.0003
85	36.20	0.000	0.15	4.8	55.0	0.002	0.0003
86	36.70	0.000	0.13	3.8	54.9	0.001	0.0003
87	37.30	0.000	0.12	2.9	54.9	0.001	0.0003
88	37.90	0.000	0.10	1.9	54.8	0.001	0.0002
89	38.60	0.000	0.09	1.0	54.8	0.001	0.0002
90	39.30	0.000	0.07	0.0	54.8	0.0008	0.0002

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Powerwave - P65-16-XL-2 150° Sector

Maximum Permissible Exposure

(MPE):

517 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.70	0.851	536.22	3140.1	3140.6	0.002	0.0004
5	0.10	0.977	615.66	626.5	628.9	0.05	0.01
10	2.50	0.562	354.27	310.8	315.6	0.12	0.02
20	9.50	0.112	70.69	150.6	160.2	0.09	0.02
30	18.10	0.015	9.76	94.9	109.6	0.03	0.005
35	22.80	0.005	3.31	78.3	95.6	0.01	0.002
40	18.90	0.013	8.12	65.3	85.3	0.04	0.007
45	24.00	0.004	2.51	54.8	77.5	0.01	0.003
50	30.20	0.001	0.60	46.0	71.6	0.004	0.0008
55	24.30	0.004	2.34	38.4	66.9	0.02	0.003
60	25.80	0.003	1.66	31.6	63.3	0.01	0.003
65	31.60	0.001	0.44	25.6	60.5	0.004	0.0008
70	36.60	0.000	0.14	20.0	58.3	0.001	0.0003
71	37.00	0.000	0.13	18.9	58.0	0.001	0.0002
72	37.30	0.000	0.12	17.8	57.6	0.001	0.0002
73	37.40	0.000	0.11	16.8	57.3	0.001	0.0002
74	37.50	0.000	0.11	15.7	57.0	0.001	0.0002
75	37.40	0.000	0.11	14.7	56.8	0.001	0.0002
76	37.20	0.000	0.12	13.7	56.5	0.001	0.0002
77	36.90	0.000	0.13	12.6	56.2	0.001	0.0003
78	36.60	0.000	0.14	11.6	56.0	0.001	0.0003
79	36.30	0.000	0.15	10.6	55.8	0.002	0.0003
80	36.00	0.000	0.16	9.7	55.7	0.002	0.0003
81	35.80	0.000	0.17	8.7	55.5	0.002	0.0003
82	35.70	0.000	0.17	7.7	55.4	0.002	0.0004
83	35.70	0.000	0.17	6.7	55.2	0.002	0.0004
84	35.90	0.000	0.16	5.8	55.1	0.002	0.0003
85	36.20	0.000	0.15	4.8	55.0	0.002	0.0003
86	36.70	0.000	0.13	3.8	54.9	0.001	0.0003
87	37.30	0.000	0.12	2.9	54.9	0.001	0.0003
88	37.90	0.000	0.10	1.9	54.8	0.001	0.0002
89	38.60	0.000	0.09	1.0	54.8	0.001	0.0002
90	39.30	0.000	0.07	0.0	54.8	0.0008	0.0002

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
Powerwave - P65-16-XL-2 270° Sector

Maximum Permissible Exposure

(MPE):

517 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.70	0.851	536.22	3140.1	3140.6	0.002	0.0004
5	0.10	0.977	615.66	626.5	628.9	0.05	0.01
10	2.50	0.562	354.27	310.8	315.6	0.12	0.02
20	9.50	0.112	70.69	150.6	160.2	0.09	0.02
30	18.10	0.015	9.76	94.9	109.6	0.03	0.005
35	22.80	0.005	3.31	78.3	95.6	0.01	0.002
40	18.90	0.013	8.12	65.3	85.3	0.04	0.007
45	24.00	0.004	2.51	54.8	77.5	0.01	0.003
50	30.20	0.001	0.60	46.0	71.6	0.004	0.0008
55	24.30	0.004	2.34	38.4	66.9	0.02	0.003
60	25.80	0.003	1.66	31.6	63.3	0.01	0.003
65	31.60	0.001	0.44	25.6	60.5	0.004	0.0008
70	36.60	0.000	0.14	20.0	58.3	0.001	0.0003
71	37.00	0.000	0.13	18.9	58.0	0.001	0.0002
72	37.30	0.000	0.12	17.8	57.6	0.001	0.0002
73	37.40	0.000	0.11	16.8	57.3	0.001	0.0002
74	37.50	0.000	0.11	15.7	57.0	0.001	0.0002
75	37.40	0.000	0.11	14.7	56.8	0.001	0.0002
76	37.20	0.000	0.12	13.7	56.5	0.001	0.0002
77	36.90	0.000	0.13	12.6	56.2	0.001	0.0003
78	36.60	0.000	0.14	11.6	56.0	0.001	0.0003
79	36.30	0.000	0.15	10.6	55.8	0.002	0.0003
80	36.00	0.000	0.16	9.7	55.7	0.002	0.0003
81	35.80	0.000	0.17	8.7	55.5	0.002	0.0003
82	35.70	0.000	0.17	7.7	55.4	0.002	0.0004
83	35.70	0.000	0.17	6.7	55.2	0.002	0.0004
84	35.90	0.000	0.16	5.8	55.1	0.002	0.0003
85	36.20	0.000	0.15	4.8	55.0	0.002	0.0003
86	36.70	0.000	0.13	3.8	54.9	0.001	0.0003
87	37.30	0.000	0.12	2.9	54.9	0.001	0.0003
88	37.90	0.000	0.10	1.9	54.8	0.001	0.0002
89	38.60	0.000	0.09	1.0	54.8	0.001	0.0002
90	39.30	0.000	0.07	0.0	54.8	0.0008	0.0002

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - DB844H90-XY 30° Sector

Maximum Permissible Exposure

(MPE):

579 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.01	0.998	628.55	3140.1	3140.6	0.002	0.0004
5	1.00	0.794	500.43	626.5	628.9	0.04	0.007
10	4.83	0.329	207.18	310.8	315.6	0.07	0.01
20	18.58	0.014	8.74	150.6	160.2	0.01	0.002
30	13.22	0.048	30.02	94.9	109.6	0.08	0.01
35	18.96	0.013	8.00	78.3	95.6	0.03	0.005
40	29.97	0.001	0.63	65.3	85.3	0.003	0.0005
45	22.32	0.006	3.69	54.8	77.5	0.02	0.004
50	20.99	0.008	5.02	46.0	71.6	0.03	0.006
55	23.39	0.005	2.89	38.4	66.9	0.02	0.004
60	27.47	0.002	1.13	31.6	63.3	0.01	0.002
65	25.95	0.003	1.60	25.6	60.5	0.01	0.003
70	23.40	0.005	2.88	20.0	58.3	0.03	0.005
71	23.06	0.005	3.11	18.9	58.0	0.03	0.005
72	22.82	0.005	3.29	17.8	57.6	0.03	0.006
73	22.70	0.005	3.38	16.8	57.3	0.03	0.006
74	22.66	0.005	3.41	15.7	57.0	0.04	0.006
75	22.67	0.005	3.41	14.7	56.8	0.04	0.006
76	22.65	0.005	3.42	13.7	56.5	0.04	0.006
77	22.71	0.005	3.38	12.6	56.2	0.04	0.006
78	22.94	0.005	3.20	11.6	56.0	0.03	0.006
79	23.13	0.005	3.06	10.6	55.8	0.03	0.006
80	23.41	0.005	2.87	9.7	55.7	0.03	0.005
81	23.71	0.004	2.68	8.7	55.5	0.03	0.005
82	24.13	0.004	2.43	7.7	55.4	0.03	0.005
83	24.54	0.004	2.22	6.7	55.2	0.02	0.004
84	24.86	0.003	2.06	5.8	55.1	0.02	0.004
85	25.37	0.003	1.83	4.8	55.0	0.02	0.003
86	26.02	0.002	1.58	3.8	54.9	0.02	0.003
87	26.67	0.002	1.36	2.9	54.9	0.02	0.003
88	27.51	0.002	1.12	1.9	54.8	0.01	0.002
89	28.29	0.001	0.93	1.0	54.8	0.01	0.002
90	29.00	0.001	0.79	0.0	54.8	0.009	0.002

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - DB844H90-XY 150° Sector

Maximum Permissible Exposure

(MPE):

579 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.01	0.998	628.55	3140.1	3140.6	0.002	0.0004
5	1.00	0.794	500.43	626.5	628.9	0.04	0.007
10	4.83	0.329	207.18	310.8	315.6	0.07	0.01
20	18.58	0.014	8.74	150.6	160.2	0.01	0.002
30	13.22	0.048	30.02	94.9	109.6	0.08	0.01
35	18.96	0.013	8.00	78.3	95.6	0.03	0.005
40	29.97	0.001	0.63	65.3	85.3	0.003	0.0005
45	22.32	0.006	3.69	54.8	77.5	0.02	0.004
50	20.99	0.008	5.02	46.0	71.6	0.03	0.006
55	23.39	0.005	2.89	38.4	66.9	0.02	0.004
60	27.47	0.002	1.13	31.6	63.3	0.01	0.002
65	25.95	0.003	1.60	25.6	60.5	0.01	0.003
70	23.40	0.005	2.88	20.0	58.3	0.03	0.005
71	23.06	0.005	3.11	18.9	58.0	0.03	0.005
72	22.82	0.005	3.29	17.8	57.6	0.03	0.006
73	22.70	0.005	3.38	16.8	57.3	0.03	0.006
74	22.66	0.005	3.41	15.7	57.0	0.04	0.006
75	22.67	0.005	3.41	14.7	56.8	0.04	0.006
76	22.65	0.005	3.42	13.7	56.5	0.04	0.006
77	22.71	0.005	3.38	12.6	56.2	0.04	0.006
78	22.94	0.005	3.20	11.6	56.0	0.03	0.006
79	23.13	0.005	3.06	10.6	55.8	0.03	0.006
80	23.41	0.005	2.87	9.7	55.7	0.03	0.005
81	23.71	0.004	2.68	8.7	55.5	0.03	0.005
82	24.13	0.004	2.43	7.7	55.4	0.03	0.005
83	24.54	0.004	2.22	6.7	55.2	0.02	0.004
84	24.86	0.003	2.06	5.8	55.1	0.02	0.004
85	25.37	0.003	1.83	4.8	55.0	0.02	0.003
86	26.02	0.002	1.58	3.8	54.9	0.02	0.003
87	26.67	0.002	1.36	2.9	54.9	0.02	0.003
88	27.51	0.002	1.12	1.9	54.8	0.01	0.002
89	28.29	0.001	0.93	1.0	54.8	0.01	0.002
90	29.00	0.001	0.79	0.0	54.8	0.009	0.002

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
ANDREW - DB844H90-XY 270° Sector

Maximum Permissible Exposure

(MPE):

579 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.01	0.998	628.55	3140.1	3140.6	0.002	0.0004
5	1.00	0.794	500.43	626.5	628.9	0.04	0.007
10	4.83	0.329	207.18	310.8	315.6	0.07	0.01
20	18.58	0.014	8.74	150.6	160.2	0.01	0.002
30	13.22	0.048	30.02	94.9	109.6	0.08	0.01
35	18.96	0.013	8.00	78.3	95.6	0.03	0.005
40	29.97	0.001	0.63	65.3	85.3	0.003	0.0005
45	22.32	0.006	3.69	54.8	77.5	0.02	0.004
50	20.99	0.008	5.02	46.0	71.6	0.03	0.006
55	23.39	0.005	2.89	38.4	66.9	0.02	0.004
60	27.47	0.002	1.13	31.6	63.3	0.01	0.002
65	25.95	0.003	1.60	25.6	60.5	0.01	0.003
70	23.40	0.005	2.88	20.0	58.3	0.03	0.005
71	23.06	0.005	3.11	18.9	58.0	0.03	0.005
72	22.82	0.005	3.29	17.8	57.6	0.03	0.006
73	22.70	0.005	3.38	16.8	57.3	0.03	0.006
74	22.66	0.005	3.41	15.7	57.0	0.04	0.006
75	22.67	0.005	3.41	14.7	56.8	0.04	0.006
76	22.65	0.005	3.42	13.7	56.5	0.04	0.006
77	22.71	0.005	3.38	12.6	56.2	0.04	0.006
78	22.94	0.005	3.20	11.6	56.0	0.03	0.006
79	23.13	0.005	3.06	10.6	55.8	0.03	0.006
80	23.41	0.005	2.87	9.7	55.7	0.03	0.005
81	23.71	0.004	2.68	8.7	55.5	0.03	0.005
82	24.13	0.004	2.43	7.7	55.4	0.03	0.005
83	24.54	0.004	2.22	6.7	55.2	0.02	0.004
84	24.86	0.003	2.06	5.8	55.1	0.02	0.004
85	25.37	0.003	1.83	4.8	55.0	0.02	0.003
86	26.02	0.002	1.58	3.8	54.9	0.02	0.003
87	26.67	0.002	1.36	2.9	54.9	0.02	0.003
88	27.51	0.002	1.12	1.9	54.8	0.01	0.002
89	28.29	0.001	0.93	1.0	54.8	0.01	0.002
90	29.00	0.001	0.79	0.0	54.8	0.009	0.002

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RYMSA - MG D3-800T0 30° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	359.20	3140.1	3140.6	0.001	0.0001
5	6.20	0.240	92.33	626.5	628.9	0.008	0.0008
10	19.90	0.010	3.94	310.8	315.6	0.001	0.0001
20	17.40	0.018	7.00	150.6	160.2	0.01	0.001
30	28.90	0.001	0.50	94.9	109.6	0.001	0.0001
35	23.70	0.004	1.64	78.3	95.6	0.006	0.0006
40	27.00	0.002	0.77	65.3	85.3	0.004	0.0004
45	27.00	0.002	0.77	54.8	77.5	0.004	0.0004
50	23.80	0.004	1.60	46.0	71.6	0.01	0.001
55	31.30	0.001	0.29	38.4	66.9	0.002	0.0002
60	35.80	0.000	0.10	31.6	63.3	0.0008	0.00008
65	33.50	0.000	0.17	25.6	60.5	0.002	0.0002
70	37.80	0.000	0.06	20.0	58.3	0.0006	0.00006
71	39.10	0.000	0.05	18.9	58.0	0.0005	0.00005
72	40.50	0.000	0.03	17.8	57.6	0.0003	0.00003
73	41.20	0.000	0.03	16.8	57.3	0.0003	0.00003
74	41.80	0.000	0.03	15.7	57.0	0.0003	0.00003
75	41.20	0.000	0.03	14.7	56.8	0.0003	0.00003
76	40.00	0.000	0.04	13.7	56.5	0.0004	0.00004
77	38.70	0.000	0.05	12.6	56.2	0.0005	0.00005
78	37.00	0.000	0.08	11.6	56.0	0.0008	0.00008
79	35.50	0.000	0.11	10.6	55.8	0.001	0.0001
80	34.00	0.000	0.15	9.7	55.7	0.002	0.0002
81	32.90	0.001	0.20	8.7	55.5	0.002	0.0002
82	32.10	0.001	0.24	7.7	55.4	0.003	0.0003
83	31.40	0.001	0.28	6.7	55.2	0.003	0.0003
84	30.70	0.001	0.33	5.8	55.1	0.004	0.0004
85	30.30	0.001	0.36	4.8	55.0	0.004	0.0004
86	30.20	0.001	0.37	3.8	54.9	0.004	0.0004
87	29.90	0.001	0.39	2.9	54.9	0.004	0.0004
88	29.90	0.001	0.39	1.9	54.8	0.004	0.0004
89	29.90	0.001	0.39	1.0	54.8	0.004	0.0004
90	30.00	0.001	0.38	0.0	54.8	0.004	0.0004

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RYMSA - MG D3-800T0 150° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	359.20	3140.1	3140.6	0.001	0.0001
5	6.20	0.240	92.33	626.5	628.9	0.008	0.0008
10	19.90	0.010	3.94	310.8	315.6	0.001	0.0001
20	17.40	0.018	7.00	150.6	160.2	0.01	0.001
30	28.90	0.001	0.50	94.9	109.6	0.001	0.0001
35	23.70	0.004	1.64	78.3	95.6	0.006	0.0006
40	27.00	0.002	0.77	65.3	85.3	0.004	0.0004
45	27.00	0.002	0.77	54.8	77.5	0.004	0.0004
50	23.80	0.004	1.60	46.0	71.6	0.01	0.001
55	31.30	0.001	0.29	38.4	66.9	0.002	0.0002
60	35.80	0.000	0.10	31.6	63.3	0.0008	0.00008
65	33.50	0.000	0.17	25.6	60.5	0.002	0.0002
70	37.80	0.000	0.06	20.0	58.3	0.0006	0.00006
71	39.10	0.000	0.05	18.9	58.0	0.0005	0.00005
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73	41.20	0.000	0.03	16.8	57.3	0.0003	0.00003
74	41.80	0.000	0.03	15.7	57.0	0.0003	0.00003
75	41.20	0.000	0.03	14.7	56.8	0.0003	0.00003
76	40.00	0.000	0.04	13.7	56.5	0.0004	0.00004
77	38.70	0.000	0.05	12.6	56.2	0.0005	0.00005
78	37.00	0.000	0.08	11.6	56.0	0.0008	0.00008
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83	31.40	0.001	0.28	6.7	55.2	0.003	0.0003
84	30.70	0.001	0.33	5.8	55.1	0.004	0.0004
85	30.30	0.001	0.36	4.8	55.0	0.004	0.0004
86	30.20	0.001	0.37	3.8	54.9	0.004	0.0004
87	29.90	0.001	0.39	2.9	54.9	0.004	0.0004
88	29.90	0.001	0.39	1.9	54.8	0.004	0.0004
89	29.90	0.001	0.39	1.0	54.8	0.004	0.0004
90	30.00	0.001	0.38	0.0	54.8	0.004	0.0004

Verizon Wireless
LightSquared LP at ATC_88008 Bethany CT, CT (610511S5)
RYMSA - MG D3-800T0 270° Sector

Maximum Permissible Exposure

(MPE):

1000 $\mu\text{W}/\text{cm}^2$

ERP (Watts)		Height (feet)		Downtilt (Degrees)			
		630		180		0	
Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
1	0.30	0.933	359.20	3140.1	3140.6	0.001	0.0001
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70	37.80	0.000	0.06	20.0	58.3	0.0006	0.00006
71	39.10	0.000	0.05	18.9	58.0	0.0005	0.00005
72	40.50	0.000	0.03	17.8	57.6	0.0003	0.00003
73	41.20	0.000	0.03	16.8	57.3	0.0003	0.00003
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89	29.90	0.001	0.39	1.0	54.8	0.004	0.0004
90	30.00	0.001	0.38	0.0	54.8	0.004	0.0004

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