

JULIE D. KOHLER

PLEASE REPLY TO: Bridgeport
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April 1, 2015

Attorney Melanie Bachman Acting Executive Director Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

Re: Notice of Exempt Modification

American Tower Corporation/T-Mobile equipment upgrade

Site ID CT11477B

1140 Wolcott Road, Wolcott, CT

Dear Attorney Bachman:

This office represents T-Mobile Northeast LLC ("T-Mobile") and has been retained to file exempt modification filings with the Connecticut Siting Council on its behalf.

In this case, American Tower Corporation owns the existing self-supporting lattice telecommunications tower and related facility at 1140 Wolcott Road, Wolcott Connecticut (latitude 41.617525/ longitude -72.97457). T-Mobile intends to add three (3) antennas and related equipment at this existing telecommunications facility in Wolcott ("Wolcott Facility"). Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Mayor, Thomas G. Dunn and the property owner, Roger Levesque.

The existing Wolcott Facility consists of a 180 foot tall lattice structure. T-Mobile plans to add three (3) antenna and three (3) RRUs (remote radio units) on existing pipe masts at a centerline of 162 feet. (See the plans revised to March 27, 2015 attached hereto as Exhibit A). The existing Facility is structurally capable of supporting T-Mobile's proposed modifications, as indicated in the structural analysis dated March 24, 2015 and attached hereto as Exhibit B.

The planned modifications to the Wolcott Facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

¹ The online CSC database does not reflect a Docket or Petition for this Facility. T-Mobile's location on this Facility was approved by the CSC in TS-T-MOBILE-166-040408.



April 1, 2015 Site ID CT11403A Page 2

- 1. The proposed modification will not increase the height of the tower. T-Mobile's proposed antennas will be installed at the 162 foot level. The enclosed tower drawing confirms that the proposed modification will not increase the height of the tower.
 - 2. T-Mobile doesn't propose any changes to the existing compound area.
- 3. The proposed modification to the Facility will not increase the noise levels at the existing facility by six decibels or more.
- 4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. According to a Radio Frequency Emissions Analysis Report prepared by EBI dated March 30, 2015 T-Mobile's operations would add 4.96% of the FCC Standard. Therefore, the calculated "worst case" power density for the planned combined operation at the site including all of the proposed antennas would be 28.16% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as Exhibit C.

For the foregoing reasons, T-Mobile respectfully submits that the proposed additional antennas and equipment at the Wolcott Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Upon acknowledgement by the Council of this proposed exempt modification, T-Mobile shall commence construction approximately sixty days from the date of the Council's notice of acknowledgement.

Sincerely,

Julie D. Kohler, Esq.

cc: Town of Wolcott, Mayor Thomas G. Dunn American Tower Corporation Roger Levesque Sheldon Freincle, NSS

EXHIBIT A

H - Mobile

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 66002
OFFICE, (860) 692-7100
FAX:(860) 692-7159

T · · Mobile ·

GROUP
1340 Centre Street, Suite 212
Newton Center, MA 02459
Office: 617–965–0789
Fax: 617–213–5056

REVISION

I-MOBILE NORTHEAST LLC

SITE #: CT11477B

SITE NAME: CT477/GENERAL COMM. SST

SITE ADDRESS:

1140 WOLCOTT RD

WIRELESS BROADBAND FACILITY CONSTRUCTION DRAWINGS WOLCOTT, CT 06716

(702CU CONFIGURATION)

VICINITY

- 1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES. RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODESS BEARING ON THE PERFORMANCE OF THE WORK, THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
- 2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONSTRUCT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWNIOS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE
- 3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE T-MOBILE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF THE CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXPENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING OF ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT DESCRIBED HEREIN.
- 5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CONTRACTOR SHALL VERIFY PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL BEFORE YOU DIG:

DO NOT SCALE DRAWINGS

- 6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- 7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUM OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLYED WITH THE PROJECT.

COLOR CODE FOR UTILITY LOCATIONS
ELECTRIC - RED SEWER
GAS/OIL - YELLOW SURVEY
TEL/CATV - ORANGE PROPOSED EXCAVATION
WATER - BULE RECLAIMED WATER

SEWER — GREEN
SURVEY — PINK
PROPOSED EXCAVATION — WHITE
RECLAIMED WATER — PURPLE

SAFETY PRECAUTIONS SHALL BE IMPLEMENTED BY CONTRACTOR(S) AT ALL TRENCHING IN ACCORDANCE WITH CURRENT OSHA STANDARDS. CALL THREE WORKING DAYS PRIOR TO DIGGING

9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS AND INSPECTIONS WHICH ARE REQUIRED FOR THE WORK

ENGINEER, THE STATE, COUNTY, OR LOCAL

- 1. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC., DURING CONSTRUCTION, UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR MY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY BY THE ARCHITECT/ENGINGOVERNMENT AUTHORITY.
- 12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON PROPERTY, PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- 13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS, AS WELL AS THE LATEST EDITIONS OF ANY PERTINENT STATE SAFETY REGULATIONS.

CODE

COMPLIANCE

15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC., ON THE JOB. 14. THE CONTRACTOR SHALL NOTIFY THE T-MOBILE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE T-MOBILE REPRESENTATIVE.

2005 CONNECTICUT BUILDING CODE WITH 2013 AMENDMENT 2011 NATIONAL ELECTRICAL CODE

CONNECTICUT STATE BUILDING CODE

CONSTRUCTION TYPE:

- 16. THE CONTRACTOR SHALL RETURN ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF WORK.
- 17. ATLANTIS GROUP, INC. HAS NOT CONDUCTED A STRUCTURAL ANALYSIS FOR THIS PROJECT AND DOES NOT ASSUME ANY LIABILITY FOR THE ADEQUACY OF THE STRUCTURE AND COMPONENTS.
- 18. REFER TO STRUCTURAL ANALYSIS DOCUMENT ENTITLED, "STRUCTURAL ANALYSIS REPORT" PREPARED BY AMERICAN TOWER, CORPORATION., "1—MOBILE SITE ID CT11477B", DATED MARCH 24, 2015.

SITE INFORMATION

CT477/GENERAL COMM.

SITE NUMBER:

PROPERTY OWNER: N 41.617550 / W -72.974592 NEW HAVEN COUNTY

PROJECT MANAGER

BRIAN L. MUCK
NETWORK DEVELOPMENT
AMERICAN TOWER CORPORATION
(717) 496-3169 OFFICE
(717) 762-6519 FAX
BRIAN.MUCK@AMERICANTOWER.COM

ARCHITECT/ENGINEER:

ATLANTIS GROUP INC. 1340 CENTRE STREET SUITE NEWTON CENTER, MA 02459

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PROFESSIONAL SEAL

PROJECT SUB-CONTRACTORS

DEPT.
RFE
RF MAN.
ZONING
OPS
CONSTR.
STIE AC.

DATE

DRAWN BY: CHECKED BY:

SM

APPLICANT:

T-MOBILE NORTHEAST, LLC. 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 (860) 692-7100

STA SEIN WARE

LISA LIN ALLEN
NORTHEAST SITE SOLUTIONS
54 MAIN STREET
STURBRIDGE, MA 01566
(508) 434-5237

GROUNDING DETAILS	E-2
	E-1
ELEVATION AND DETAILS	A-2
KEY PLAN AND SITE PLAN	A-1
GENERAL AND ELECTRICAL NOTES	Z-1
TITLE SHEET	<u>T</u>
DESCRIPTION	SHEET
SHEEL INDEX	

SHEET TITLE

SHEET NUMBER

ELECTRICAL NOTES:

WORK INCLIDED

I. NICLIDE ALL LABOR, MATERIALS, EQUIPMENT, PLANT SERVICES

AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE
OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS

AND SPECIFIED HEREIN, INCLUDING BUT NOT IMITED TO THE
FOLLOWING:

FOLLOWING:

OFFICIAL TOTAL PROPERTY OF THE PROPERTY

A PREPARE AND SUBMIT SHOP DRAWINGS, DIAGRAMS AND LILUSTRATIONS.

B. PROCURE ALL NECESSARY PERMITS AND APPROVALS AND PAY ALL RECUIRED FEES AND CHARGES IN CONNECTION WITH THE WORK OF THIS CONTRACT.

C. SUBMIT AS-BUILL DEAWNORS, OPERATING AND MAINTENANCE INSTRUCTIONS AND MANUALS.
D. EXECUTE ALL CUTTING, DRILLING, ROUGH AND FINISH ATCHING OF EXISTING OR NEWLY NISTMALED CONSTRUCTION REQUIRED FOR THE WORK OF THIS CONTRACT, FOR SLAB PENETRATIONS THATCHING OR NEWLY NISTMALED CONSTRUCTION AREA OF PENETRATION PROOF TO PERFORMING WORK.
COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER, COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER, ENCOURD HANGERS, SUPPORTS, FOUNDATIONS, STRUCTURAL FRAMING SUPPORTS, AND BASES FOR CONDUIT AND EQUIPMENT PROVIDED OR NISTMALED UNDER THE WORK OF HIS CONTRACT, PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.

F. MANTAIN ALL ENSTING ELECTRICAL SERVICES IN THE BUILDING AREASS OF THE WORK INCLUDING PROVIDING ALL TEMPORARY LUMERES, CONDUITS, CAPS, POTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LUMER SAND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LIGHT AND POWER FOR CONSTRUCTION

2. IT IS THE MENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT, IT IS NOT THE NIENT TO GREE EVERY DEFAIL ON THE DRAWINGS AND IN THE SPECIFICATIONS. IF AN ITEM OF WORK IS NOIGATED IN THE DRAWINGS, IT IS CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT, FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION WHETHER OR NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.

GENERAL REQUIREMENTS

1. PROVIDE ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL AND STATE ELECTRICAL ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. REFER TO ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF

THE BUILDING.
LOAD CALCULATIONS ARE BASED ON EXISTING BUILDING
INFORMATION/DRAWINGS PROVIDED TO ENGINEERING.
INFORMATION/DRAWINGS PROVIDED TO ENGINEERING.
CONTRACTOR IS TO VERIEY ALL EXISTING RATINGS AND LOADS
PRIOR TO PURCHASING OF SPECIFIED EQUIPMENT FOR
COMPLANCE TO NICE. COUNTRACTOR TO NOTIFY ENGINEER OF
ANY DISCREPANCIES AND REQUEST FURTHER DIRECTION BY

ENGINEER.

ENSTING BUILDING EQUIPMENT IS NOTED ON THE DRAWINGS.

NEW OR RELOCATED EQUIPMENT IS SHOWN WITH SOLID LINES.

FUTURE EQUIPMENT (NOT IN THIS CONTRACT) IS DEPICTED WITH

SHADED LINES. REQUEST CLARIFICATION OF DRAWINGS OR OF

SPECIFICATIONS PRIOR TO PRICING OR INSTALLATION.

6.BICEPAL

A AFTER CAREFULLY STUDYING THE DRAWINGS AND

A AFTER CAREFULLY STUDYING THE DRAWINGS AND

A AFTER CAREFULLY STUDYING THE DRAWINGS AND SECRECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL MAKE A MANDATORY SITE USIT TO ASSERTAND CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED, NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO NOTHEY HE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE EXECUTION OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE EXECUTION.

B. VERIFY ALL MEASUREMENTS AT THE SITE AND BE
RESPONSIBLE FOR CORRECTNESS OF SAME
6. QUALITY, WORKMANSHIP, MATERALS AND SAFETY
A. PROVIDE NEW MATERALS AND EQUIPMENT OF A DOMESTIC
A. PROVIDE NEW MATERALS AND EQUIPMENT OF A DOMESTIC
A. PROVIDE NEW MATERALS AND EQUIPMENT OF A DOMESTIC
AMPUFACTURER BY THOSE REGULARLY ENGAGED IN THE
PRODUCTION AND MANUFACTURE OF SPECIFIED MATERALS
AND EQUIPMENT WHERE UL, OR OTHER AGENCY, HAS
ESTABLISHED STANDARDS FOR MATERALS, PROVIDE MATERALS
AND EQUIPMENT WHERE UL, OR OTHER AGENCY, HAS
ESTABLISHED STANDARDS FOR MATERALS, PROVIDE MOTHER
SPECIFIC NAMES MENTIONED HEREIN ACCORDINGLY. THE
COMMERCIALLY STANDARD TEMS OF EQUIPMENT AND THE
SPECIFIC NAMES MENTIONED OF THE WORK,
WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE
PROPER FUNCTIONING OF THE WORK, UNSTALL MATERALS AND
EQUIPMENT TO PRESENT A NEAT APPEARANCE WHEN
COMPLETED AND IN ACCORDANCE WITH THE APPROVED
RECOMMENDATIONS OF THE MANUFACTURER AND IN
ACCORDANCE WITH CONTRACT DOCUMENT OF THE SYSTEMS DESCRIBED
OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY
IMPLIED AS ESSENTIAL WHENEVER MENTIONED IN THE
CONTRACT DOCUMENT OR NOT.
D. MAKE WRITTEN REQUESTS FOR SUPPLEMENTARY
INSTRUCTIONS TO ACCHIECT/SENGNEER IN CASE OF DOUBT
SEPCIFIED ARE MINIMIM STANDARD ACCEPTABLE. THE RIGHT
TO JUDGE THE QUALITY OF EQUIPMENT THAT DEVATES FROM
THE CONTRACT DOCUMENT REMAINS SOLELY WITH
THE CONTRACT DOCUMENT REMAINS SOLELY WITH
THE APPENDANCE AND MATERAL REQUIREMENT SHATE FROM
THE CONTRACT DOCUMENT REMAINS SOLELY WITH
THE APPENDANCE AND MATERAL REQUIREMENTS CHEDULES FROM
THE CONTRACT DOCUMENT REMAINS SOLEDY WITH
THE APPENDANCE AND MATERAL REQUIREMENT SHATE FROM
THE CONTRACT DOCUMENT REMAINS SOLEDY WITH
THE APPENDANCE AND MATERAL REQUIREMENT FAIT DEVALES FROM
THE CONTRACT DOCUMENT OR NOT.

GUARANTEE MATERIALS, PARTS AND LABOR FOR WORK FOR ONE YEAR FROM THE DATE OF ISSUANCE OF OCCUPANCY PERMIT. DURING THAT FERROD, MAKE GOOD FAULTS OR IMPERFECTIONS THAT MAY ARRE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKLANSHIP WITH NO ADDITIONAL COMPENSATION AND AS DIRECTED BY ARCHITECT.

CLEANING

1. REMOVE ALL CONSTRUCTION DEBRIS RESULTING FROM THE
WORK.

2. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE COMPLETION
OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER.

COORDINATION AND SUPERVISION

1. CAREFULLY LAY OUT ALL WORK IN ADVANCE TO AVOID UNICESSAE CUTING, CHANNELING, CHASING OF DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES.
WHERE SUCH WORK IS NECESSARY, HOWEVER, PATCH AND REPAIR THE WORK IN AN APPROVED MANURER BY SKILLED MICHANICS AT NO ADDITIONAL COST TO THE OWNER, RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. ASSIST IN WORKING OUT SPACE CONDITIONS, IF WORK IS INSTALLED BEFORE COOPDINATION WITH OTHER TRADES, OR CAUSES INTERFERENCE, MAKE CHANGES NECESSARY TO CORRECT CONDITIONS WITHOUT EXTRA CHARGE.

SUBMITTALS

1. AS-BUILT DRAWINGS:
A JUPON COMPLETION OF THE WORK, FURNISH TO THE OWNER "AS-BUILT" DRAWINGS.
2. SERVICE MANUALS:
A JUPON COMPLETION OF THE WORK, FULLY INSTRUCT T-MOBILE AS TO THE OPERATION AND MAINTENANCE OF ALL MATERIAL, EQUIPMENT AND SYSTEMS.
B. PROVIDE 3 COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT.

CUTTING AND PATCHING

1. PROVIDE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING

REQUIRED TO COMPLETE THE WORK.

2. OBTAIN OWNER APPROVAL PRIOR TO CUTTING THROUGH FLOORS

OR WALLS FOR PIPING OR CONDUIT.

TESTS, INSPECTION AND APPROVAL

1. BETORE ENERGZING TAY ELECTRICAL INSTALLATION, INSPECT
EACH UNIT IN DETAIL. TIGHTEN ALL BOLTS AND CONNECTIONS
(TORQUE-TIGHTEN WHERE REQUIRED) AND DETERMINE THAT ALL
COMPONENTS ARE ALIGNED, AND THE EQUIPMENT IS IN SAFE,
OPERATIONAL CONDITION.

2. PROWIDE THE COMPLETE ELECTRICAL SYSTEM FREE OF GROUND
FAULTS AND SHORT CIRCUITS SUCH THAT THE SYSTEM WILL
OPERATE SATISFACTIORLY UNDER FULL LOAD CONDITIONS,
WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

SPECIAL REQUIREMENTS

1. DO NOT LEAVE ANY WORK INCOMPLETE NOR ANY HAZARDOUS STUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS, DO NOT INTERFERE WITH OR CLITOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.

2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUMING SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON.

SHUTDOWN NOTE: SCHEDULE AND NOTIFY OWNER 4B HOURS PROR TO SHUTDOWN, ALL SHUTDOWN WORK TO BE SCHEDULED AT A TIME CONVENIENT TO OWNER.

GROUNDING

1. ROUTE ALL GROUNDING CONDUCTORS AS SHOWN ON CONDUT/GROUNDING RISER.

2. ROUTE 500 KCMIL CU. 1'HHN CONDUCTOR FROM THE MGB LOCATION TO BUILDING STEEL LY GROUNDED PER NEC TO THE MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR (GEC).

3. MAKE ALL GROUND CONNECTIONS FROM MGB TO ELECTRICAL EQUIPMENT WITH 2 HOLE, CRIMP TYPE, BURNDY COMPRESSION TERMINATIONS, SIZED AS REQUIRED.

4. USE 1 HOLE, CRIMP TYPE, BURNDY COMPRESSIONS TERMINATIONS, SIZED AS REQUIRED, AT EQUIPMENT GROUND CONNECTIONS.

CONNECTIONS.

HIRE AN INDEPENDENT LAB TO PERFORM THE SPECIFIED OHMS TESTING. PROVIDE 4 SETS OF THE CERTIFIED DOCUMENTS TO THE OWNER FOR VERIFICATION PRIOR TO THE PROJECT COMPLETION.

ALL WIRNE OF BE INSTALLED IN CONDUIT SYSTEMS IN ACCORDANCE WITH THE FOLLOWING:

A EXTERIOR FEEDERS AND CONTROL, WHERE UNDERGROUND, TO BE IN SCH 40 PVC.

B. EXTERIOR, ASDOVE GROUND POWER CONDUITS TO BE GALVANIZED RIGHD STEEL (RCS).

C. ALL TELECOMMUNICATION CONDUITS, INTERIOR/EXTERIOR, TO BE EMT.

D. INSTALL PULL ROPES IN ALL NEW EMPTY CONDUITS INSTALLED ON THIS PROJECT.

ON THIS PROJECT.

E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT.

E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT.

E. ALL TELECOM CONDUITS ON TO INSTALL.

PROVIDE LABELS FOR CONTRACTOR TO INSTALL.

INTERIOR FEEDERS TO BE INSTALLED IN EM.T. WITH STEEL COMPRESSION FITTINGS.

G. MINIMUM SIZE CONDUIT TO BE X," TRADE SIZE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

H. FINAL CONNECTIONS TO MOTORS AND PREATING EQUIPMENT TO BE INSTALLED IN CRUMONS, UNLESS OTHERWISE NOTED.

AREAS OR DRYMALL PARTITIONS, UNLESS OTHERWISE IS DAGRAMMATIC. BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LATORITY AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND

ALL EXTERIOR MOUNTING HARDWARE TO BE GALVANIZED STEEL COORDINATE WITH BUILDING ENGINEER PRIOR TO ATTACHING TO BUILDING STRUCTURE.

RACEWAYS CONT'D

RACEWAYS CONT'D

L PENETRATIONS OF WALLS, FLOORS AND ROOFS, FOR THE PASSAGE OF ELECTRICAL RACEWAYS, TO BE PROPERLY SEALED AFTER INSTALLATION OF RACEWAYS SO AS TO MANTAIN THE STRUCTURAL OR WATERPROOF INTEGRITY OF THE WALL, FLOOR OR ROOF SYSTEM TO BE PENETRATED. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS OR SMOKE TIGHT CORRIDOR PARTITIONS TO MAINTAIN PROPER RATING OF WALL OR CEILING.

M. PROVIDE ALL CONDUIT ENDS WITH INSULATED METALLIC GROUNDING BUSHINGS.

M. PROVIDE ALL CONDUIT ENDS WITH INSULATED METALLIC GROUNDING BUSHINGS.

N. CONDUIT TO BE SUPPORTED AT MAXIMUM DISTANCE OF 8'-O," OR AS REQUIRED BY NEC, IN HORIZONTAL AND VERTICAL DIRECTIONS.

O. PROVIDE STAILESS STELL BLANK COVER PLATES FOR ALL JUNCTION BOXES AND/OR OUTLET BOXES NOT USED IN EXPOSED AREAS, PROVIDE ROOFTOP CONDUIT SUPPORT SYSTEM, CONFORMING TO ROOFTOP WARRANTY REQUIREMENTS, PER BUILDING.

WIRES AND CABLES

1. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIER AND VENDOR FOR EXACT EQUIPMENT OVER-CURRENT PROTECTION VOLTAGE, WIRE SIZE AND PLUG CONFIGURATION, IF APPLICABILE, PRIOR TO BID.

2. ALL EQUIPMENT/DEVICES TO BE PROVIDED WITH INSULATED GROUND CONDUCTOR.

3. ALL WIRE AND CABLE TO BE BOOVOLT, COPPER, WITH THWN/THYN ROLLAND, EXCEPT AS NOTED.

4. WIRE FOR POWER AND LIGHTING WILL NOT BE LESS THAN NO. 12AWG. ALL WIRE NO. 8 AND LANGER TO BE ESTRANDED.

5. CONTROL WIRING IS NOT TO BE LESS THAN NO. 14AWG. FLEXIBLE IN SINGLE CONDUCTORS OR MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE CABLES TO BE PROVIDED WITH AN OVERALL FLAME-PETADOMY, EXTRUDED JACKET AND RATED. FOR PLENUM USE ALL CONTROL WIRE TO BE GOOVOLT RATED.

6. WIRE PREVOUSLY PULLED. INTO CONDUIT IS CONSIDERED USED AND IS NOT TO BE RE-PULLED.

7. HOME RAINS AND BRANCH CIRCUIT WIRRING FOR 20A, 120V CIRCUITS:

1 ENGRIF (FT)

1 HOME RAINS AND BRANCH CIRCUIT WIRRING FOR 20A, 120V CIRCUITS.

LENGH (FL)

LENGH (FL)

10 TO 50

10 TO 50

10 TO 150

8. VOLTAGE DROP IS NOT TO EXCEED 3%.

9. WAS ALL CONNECTIONS WITH UL APPROVED, SOLDERLESS, PRESSURE TYPE INSULATED IONNECTIORS: SCOTCHLOK OR AND APPROVED EQUAL.

WIRING DENGES

1. ALL RECEPTACLES INSTALLED IN THIS PROJECT TO BE GROUNDING TYPE, WITH GROUNDING PIN SLOT CONNECTED TO DENGE GROUND SCREW POR GROUND WIRE CONNECTED TO DENGE GROUND SCREW POR GROUND WIRE CONNECTION.

DISCONNECT SWITCHES TO BE VOLTAGE—RATED TO SUIT THE SYSTEM FROM WHICH THEY ARE SUPPLIED.

2. PROVIDE HEAVY—DUTY, METAL—ENCLOSED, EXTERNALLY—OPERATED TO SUIT THEY STATED TO BE UNDERSON OF SUICH TYPE

2. PROVIDE HEAVY—DUTY, METAL—ENCLOSED, EXTERNALLY—OPERATED DISCONNECT SWITCHES, FUSED OR UNFUSED, OF SUGH TYPE AND SIZE AS REQUIRED TO PROPERTY PROTECT OR DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.

3. PROVIDE NEMA 1 DISCONNECT SWITCHES FOR INTERIOR INSTALLATION, NEMA 3R FOR EXTERIOR INSTALLATION.

4. DISCONNECT SWITCHES TO BE MANUFACTURED BY:

4. DISCONNECT SWITCHES TO BE MANUFACTURED BY:

5. SQUARE—D

8. SQUARE—D

8. SQUARE—D

8. SQUARE—D

ADE RK-1 TYPE FUSES, UNLESS NOTED OTHERWISE.

1. INSTALL DISCONNECT SWITCHES WHERE INDICATED ON DRAWINGS.
2. INSTALL FUSES IN FUSIBLE DISCONNECT SWITCHES, FUSES MUST MATCH IN TYPE AND FAITING.
3. FUSES TO BE MOUNTED SO THAT THE LABELS SHOWING THEIR RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL.
4. FURNISH AND DEPOSIT SPARE FUSES AT THE JOB SITE AS FOLLOWS.
A. THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF FOLLOWS.

THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF JOA, USED FOR INITIAL FUSING.

TEN PERCENT SPARES FOR EACH TYPE AND SIZE, UP TO JOHN PICTURE SPARES FOR ROLE THE FUSING. IN NO CASE WILL LESS THAN THREE FUSES OF ONE PARTICULAR TYPE AND SIZE BE FURNISHED.

GENERAL NOTES:

INTER SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.

2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY, HOWEVER, SHOULD ANYTHING BE SHOWN, INCICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INCICATED, OR SPECIFIED IN BOTH

3. THE INTENDION OF THE DOCUMENTS IS TO INCILIDE ALL LABOR AND MATERIALS REASONABLY NICESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.

4. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.

5. MINOR DEVIANITIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK, NO CHANGES THAT ALTER THE CAMPACT OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

CLEANUP

1. THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK. THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY TO USE.

NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF THE STRUCTURE.

1. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST, IDENTIFY THE PRODUCT OR FABRICATION OR INSTALATION METHOD TO BE REPLACED BY THE SUBSTITUTION, INCLUDE RELIAND SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPILANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.

2. SUBMIT ALL NICESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, SHALL, IF DEEMED NICESSARY BY THE OWNER, SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

ABBREVIATIONS ADJUSTABLE ABOVE GROUND LINE AND EQUAL EQUIPMENT EQUIPMENT GROUND BAR CEILING
CONCRETE
CONTINUOUS
DIAMETER MECHANICAL MICROWAVE DISH MANUFACTURER PPROXIMATE NISHED FLOOR VANIZED VERAL CONTRACTOR

CONFLICTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATIONS OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.

2. THE BIDDER, IF AWARDED THE CONTRACTOR MICHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDER MICH THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONTRACTOR TO THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMNISSION ON THE PART OF THE CONTRACTOR TO FULLIL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS COVERNING THE WORK.

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35 GRIFFIN ROAD SOUTH
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T - Mobile

GROUP

GROUP

GROUP

1340 Centre Street, Suite 212

Newton Center, MA 02459

Office: 617–965–0789

Fax: 617–213–5056

SUBMITTALS
DESCRIPTION
ISSUED FOR REVIEW
REVISED FOR COMMENTS
REVISED FOR COMMENTS
REVISED FOR COMMENTS
REVISED FOR COMMENTS

STORAGE

1. ALL MATERIALS MUST BE STORED IN A LEYEL AND DRY FASHION
AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE
FLOW OF OTHER WORK, ANY STORAGE METHOD MUST MEET ALL
RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

3. INTERIOR
A VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL
TRACES OF SOIL, WASTE MATERALS, SMUDGES AND OTHER
FOREIGN MATTER FROM WALLS, FLOOR, AND CELLING.
B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM
ADJACENT SURFACES.
C. REMOVE PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM
FINISHED SURFACES.

CHANGE ORDER PROCEDURE:

1. REFER TO SECTION 17 OF SIGNED MCSA: SEE PROFESSIONAL SERVICE AGREEMENT FOR MCSA.

RELATED DOCUMENTS AND COORDINATION

1. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERELATED, IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROXIAL

2. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

ARCHITECTURAL DETAIL - DRAWING DETAIL NUMBER EXISTING N.I.C. -SHEET NUMBER OF DETAIL REFER (u) REFERENCE 컹 38 SYMBOLS A P

QUALITY ASSURANCE

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL
STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE, BUT
NOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE
UNOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE
DOCAL COVERNING BODY. SEE "CODE COMPLIANCE" T-1.

ADMINISTRATION

1. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR
WILL ASSIGN A PROLECT MANAGER WHO WILL ACT AS A SINGLE
POINT OF CONTACT FOR ALL PRESONNEL INVOLVED IN THIS
SHOULET. THIS PROJECT MANAGER WHO WILL ACT AS A SINGLE
POINT OF CONTRACT FOR ALL PRESONNEL MINOLY WORK.

2. SUBMIT A BAR TYPE PROJECTS WHICH WILL BE SUBMITTED TO
THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR
EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED
AT THE SITE, PROPERTY SEQUENCED AND COORDINATED WITH
OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE
WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED
FOR SUBSTANTIAL COMPLETION OF THE WORK.

3. CHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS
WOULD INCLUDE, BUT NOT LIMITED TO, THE OWNER, PROJECT
MANAGER, CONTRACTED, LOAD OWNER REPRESENTATIVE, LOCAL
TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF
SUBCONTRACTED).

4. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF
CONSTRUCTION, CONTRACTION, SUCH AS A MOBILE PHONE OR A
BEFFER, THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE
OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.

5. DURING CONSTRUCTION, CONTRACTOR WHAT HALL MYCS SAFETY
RECUIREMENTS IN THER AGREEMENT.

6. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE
COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND
EQUIPMENT IS REQUIRED PROOR TO START OF CONSTRUCTION.

8. NOTITY THE OWNER, PROJECT
THE OWNER, AND EQUIPMENT OF CONSTRUCTION MATERIALS.

COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND
EQUIPMENT IS REQUIRED PROOR TO START OF CONSTRUCTION.

8. NOTITY THE OWNER, PROJECT
THE OWNER.

7. CONTRACTOR IN ADMANDER IN WRITING ON LESS
THAN 48 HOURS IN ADVANCE OF CONSTRUCTION.

8. NOTITY THE OWNER, PROJECT
THE OWNER.

8. PROVIDE THE OWNER OF CONSTRUCTION.

9. THE OWNER OWNER OF THE P

CONTRACTS AND WARRANTIES

1. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.

2. SEE MASTER CONTRACTION SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

LEWE THEIR WORK CLEAN AND READY TO USE.

2. EXTERIOR

A VISUALTY INSPECT EXTERIOR SURFACES AND REMOVE ALL
TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER
FOREIGN MATTER.

B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM
ADJACENT SURFACES.

C. IF NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF
CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.

INSURANCE AND BONDS

1. CONTRACTOR, AT THEIR OWN EXPENSE, SHALL CARRY AND MAINTAIN, FOR THE DURATION OF THE PROJECT, ALL INSURANCE, AS REQUIRED AND LISTED, AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CRETTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER, REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.

2. THE OWNER SHALL BE NUMBED AS AN ADDITIONAL INSURED ON ALL POLICIES.

3. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

PROJECT NO: DRAWN BY: CHECKED BY:

11477B MB SM

SASE TRANSMISSION STATION STA CONNECTION OF THE PROPERTY PROFESSIONAL SEAL

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DESIGN, PROPERTY AND COPYRIGHTED
WORK OF TAMOBILE. ANY DUPLICATION
OR USE WITHOUT EXPRESS WRITTEN
CONSENT IS STRICTLY PROHIBITED.

SITE NAME CT477/GENERAL COMM. SST SITE NUMBER CT11477B

ASTER GROUND BAR

1140 WOLCOTT RD WOLCOTT, CT 06716 SITE ADDRESS

NOT IN CONTRACT
NOT TO SCALE
ON CENTER
OPPOSITE

GENERAL AND ELECTRICAL NOTES SHEET TITLE

PROPOSED
PERSONAL COMMUNICATION SYSTEM
POWER PROTECTION CABINET
SQUARE FOOT

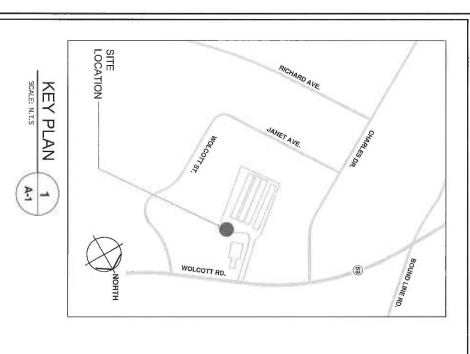
SHEET NUMBER

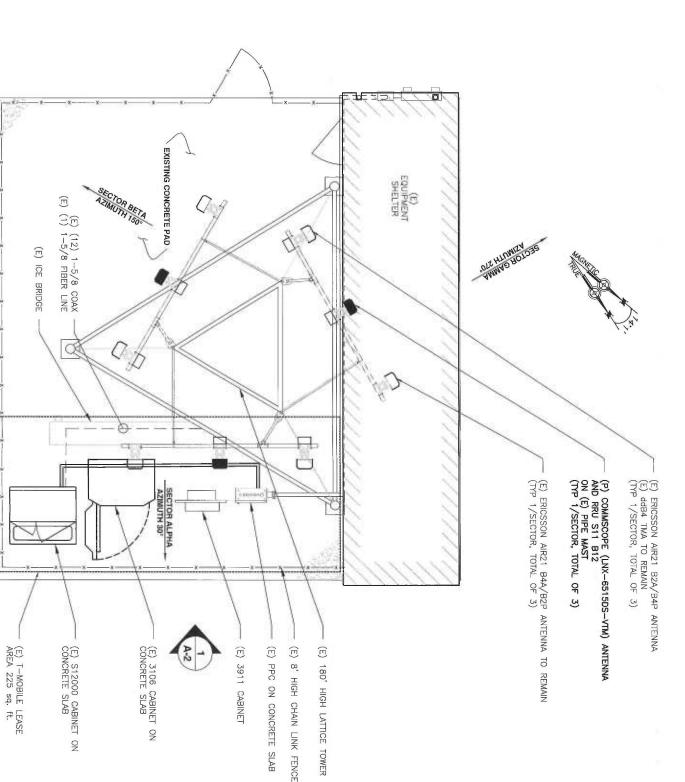
STEEL
TOP OF CONCRETE
TOP OF MASONRY

SIMILAR STAINLESS STEEL

TYPICAL
VERIFY IN FIELD
UNLESS OTHERWISE NOTED
WELDED WIRE FABRIC
WITH

Z -





GENERAL SITE NOTES

1. SITE INFORMATION WAS OBTAINED FROM A FIELD INVESTIGATION PERFORMED BY ATLANTIS GROUP, INC. CONTRACTOR TO FIELD VERIFY DIMENSIONS AS NECESSARY BEFORE CONSTRUCTION.

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (800) 592-7100
FAX:(800) 692-7159

T - Mobile-

2. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE SIGNS OF ADVERTISING.

3. THE PROPOSED DEVELOPMENT IS UNMANNED AND THEREFORE DOES NOT REQUIRE A MEANS OF WATER SUPPLY OR SEWAGE DISPOSAL

TLANTIS
GROUP
1340 Centre Street, Suite 212
Newton Center, MA 02459
Office: 617–965–0789
Fax: 617–213–5056

4. NO LANDSCAPING WORK IS PROPOSED IN CONJUNCTION WITH THIS DEVELOPMENT OTHER THAN THAT WHICH IS SHOWN.

5. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES.

SUBMITTALS
DESCRIPTION RESULD FOR ROMEN'S
SENDED FOR ROMEN'S
S REVISED FOR COMMENTS
FINAL CD

REVISION

6. UTILITIES SHOWN ON PLAN ARE TAKEN FROM OWNERS RECORDS AND FIELD LOCATION OF VISIBLE SURFACE FEATURES. THE EXISTENCE, EXTENT AND EXACT HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES HAS NOT BEEN VERHEID, ANY CONTRACTOR PERFORMING WORK ON THIS SITE MUST CONTACT CALL BEFORE YOU DIG THREE WORKING DAYS PRIOR TO COMMENCING WORK.

7. ALL OBSOLETE OR UNUSED FACILITIES SHALL BE REMOVED WITHIN 12 MONTHS OF CESSATION OF OPERATIONS.

REVISIONS

SITE LEGEND

OPAQUE WOODEN FENCE CHAIN LINK FENCE EVERGREEN TREES/SHRUBS DECIDUOUS TREES/SHRUBS BOARD ON BOARD FENCE STREET OR ROAD SITE PROPERTY LINE



WORK OF T-MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. THIS DOCUMENT IS THE CREATION, ESIGN, PROPERTY AND COPYRIGHTE

EXISTING

UTILLITY POLE TREE LINE

NEW

PROPOSED

SITE NUMBER CT11477B

FUTURE

SITE NAME CT477/GENERAL COMM. SST 1140 WOLCOTT RD WOLCOTT, CT 06716 SITE ADDRESS

EX. UMTS ANTENNA

EX. GSM ANTENNA PROP. UMTS/GSM ANTENNA PROP. LTE ANTENNA

EQUIPMENT PLAN SHEET TITLE ROOF PLAN AND

SCALE: 1'' = 6'-0'' (11x17) 1'' = 3'-0'' (24x36)

20 A N

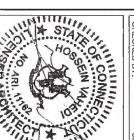
1"=6" (11x17) 1"=3" (24x36)

SITE PLAN

A-1

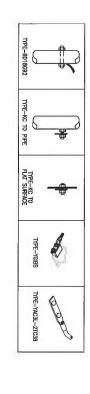
SHEET NUMBER

STA HOS GEIN WARE









GROUNDING CABLE TWO HOLE COPPER COMPRESSION TERMINAL

1000

STAINLESS STEEL HARDWARE

NUT (TYP)

STAR WASHER (TYP) GROUND BAR

LEVATION

-FLAT WASHER

(F)

GROUND BAR 为"x1½" HEX BOLT

BURNDY GROUNDING DETAILS

E2 -

SCALE: N.T.S.

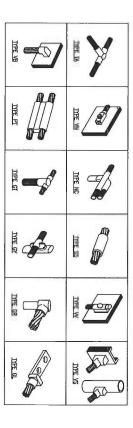




BURNDY GROUNDING PRODUCTS

SCALE: N.T.S.





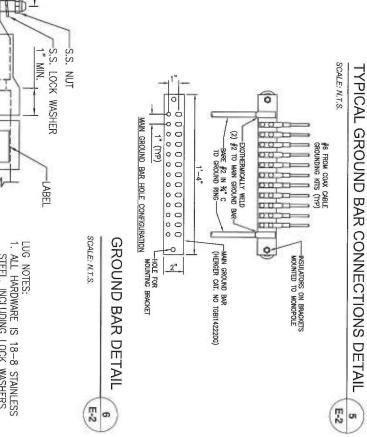
CADWELD GROUNDING CONNECTION PRODUCTS

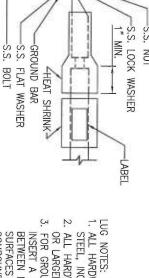
TERMINATION TYPES:

A. MECHANICAL COMPRESSION LUG
B. DOUBLE BARRELL COMPRESSION
CONNECTOR EXOTHERMIC TERMINATION BEAM CLAMP #6 GROUND LEAU #2/0 STRANDED GRNDG ELECTRODE CONDUCTOR MASTER GROUND BAR URAL OR TOWER STEEL / GROUND RING GROUND LEAD B OR C SOLID #2 TIMNED #6 GROUND LEAD MAIN STRANDED CONDUCTOR MASTER GRAD BAR A, C, OR D STRUCTURAL OR RDG SERVICE ENTR OR GROUND ROD

GROUNDING TERMINATION MARTIX







LUG NOTES:

1. ALL HARDWARE IS 18-8 STAINLESS STEEL, INCLUDING LOCK WASHERS.

2. ALL HARDWARE SHALL BE S.S. %"#

OR LARGER.

3. FOR GROUND BOND TO STEEL ONLY:
INSERT A DRAGON TOOTH WASHER
BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH ANTI-OXIDIZATION COMPOUND PRIOR TO MATING.

GROUND BAR DETAIL

SCALE: N.T.S.

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SITE NUMBER CT11477B

SITE NAME CT477/GENERAL COMM. SST SITE ADDRESS

1140 WOLCOTT RD WOLCOTT, CT 06716

GROUNDING DETAILS

SHEET TITLE

SHEET NUMBER E-2



T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 66002
OFFICE: (80) 592-7100
FAX:(860) 692-7159 T - Mobile-

1. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

NEW COAXIAL GROUND KITS WITH LONG BARREL COMPRESSION LUGS WITH TWO (2) 3/8"6 BOLTS AND LOCK WASHERS SIMILAR TO ANDREW 3241088-9.

NEW COPPER GROUND BAR INSTALLED BY GENERAL CONTRACTOR.

#2AWG WITH LONG BARREL COMPRESSION LUGS, USE STAR WASHERS, LOCKWASHERS, AND STAINLESS STEEL HARDWARE TO SECURE TO EXTERNAL GROUND BAR BY GENERAL CONTRACTOR.

SECTION "A-A"

-EXPOSED BARE COPPER TO BE KEPT TO ABSOLUTE MINIMUM, NO INSULATION ALLOWED WITHIN THE COMPRESSION TERMINAL (TYP.)

DEPT. DATE
RFE
RF MAN.
ZONING
OPS ROJECT NO: SUBMITTALS
DESCRIPTION REVISION
ISSUED FOR REVIEW A
REVISED FOR COMMENTS
OR COMMENTS
TRIVAL COM
2 APP'D REVISIONS

1. ALL HARDWARE STAINLESS STEEL COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING. 2. FOR GROUND BOND TO STEEL ONLY: INSERT A TOOTH WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH KOPR-SHIELD. 3. ALL HOLES ARE COUNTERSUNK χ_6 ".

½"(TYP)—

#2 BARE SOLID-TINNED COPPER

CONDUCTOR TO GROUND BUS.

1'-8"

SM

STA OS GEN VAN PROFESSIONAL SEAL

EXHIBIT B



Structural Analysis Report

Structure : 180 ft Self Supported Tower

ATC Site Name : Levesque CT, CT

ATC Site Number : 275375

Engineering Number : 61590621

Proposed Carrier : T-Mobile

Carrier Site Name : CT477/General Comm. SST

Carrier Site Number : CT11477B

Site Location : 1140 Wolcott Road

Wolcott, CT 06716-1514

41.617550,-72.974592

County : New Haven

Date : March 24, 2015

Max Usage : 95%

Result : Pass

Prepared By: Joshua L. Johnson, E.I. Structural Engineer I

MAL

Reviewed by: Scott Wirgau, PE Structural Team Leader



Mar 24 2015 4:23 PM



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Introduction	1
Supporting Documents	1
Analysis	1
Conclusion	
Existing and Reserved Equipment	. 2
Equipment to be Removed	2
Proposed Equipment	2
Structure Usages	3
Foundations	3
Deflection, Twist, and Sway	. 3
Standard Conditions	4
Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 180 ft self supported tower to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	Rohn Drawing #B881302, dated November 28, 1988
Foundation Drawing	Rohn Drawing #A881602-1, dated December 7, 1988
Geotechnical Report	CTB Project #88-718, dated November 22, 1988

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	95 mph (3-Second Gust)
Basic Wind Speed w/ Ice: 50 mph (3-Second Gust) w/ 3/4" radial ice concurrent	
Code: ANSI/TIA-222-G / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendme	
Structure Class:	II
Exposure Category:	В
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$Ss = 0.19, S_1 = 0.06$
Site Class:	D - Stiff Soil

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

Elevation	on¹ (ft)	Ott	Antonno	N do unt Time	Linna	Ci	
Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier	
180.0	187.0	2	15' Omni	Leg	(2) 1/2" Coax		
174.0	180.0	1	12' Omni	Side Arms	(1) 1/2" Coax	-	
		3	Ericsson AIR 21, 1.3M, B4A B2P		(12) 1 5 /0!! 6		
162.0	162.0	3	Ericsson AIR 21, 1.3M, B2A	Sector Frames	(12) 1 5/8" Coax (1) 1 5/8" Hybriflex	T-Mobile	
		3	Ericsson KRY 112 144/1		(1) 15/8 Hyprillex		
103.0	112.0	1	18' Dipole	Leg	(1) 1/2" Coax		
61.0	72.0	1	18' Omni	Side Arm	(1) 1/2" Coax		
55.0	66.0	1	18' Omni	Side Arm	(1) 1/2" Coax		
45.0	50.0	1	10' Dipole	Leg	(1) 1/2" Coax		

Equipment to be Removed

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

Proposed Equipment

Elevation Mount	on¹ (ft) RAD	Qty	Antenna	Mount Type	Lines	Carrier
162.0	162.0	3	Commscope LNX-6515DS-VTM	Contar Frames		TMahila
102.0	162.0	3	Ericsson RRUS 11	Sector Frames	(-	T-Mobile

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).



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	95%	Pass
Diagonals	93%	Pass
Horizontals	14%	Pass
Anchor Bolts	48%	Pass
Leg Bolts	54%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kip-Ft)	2340.0	37%
Axial (Kips)	136.9	12%
Shear (Kips)	14.2	17%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, considering a factor of safety of 2, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
162.0	Commscope LNX-6515DS-VTM	TNAshila	0.325	0.076	0.337
102.0	Ericsson RRUS 11	T-Mobile	0.325	0.076	0.337

^{*}Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



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.

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Sec. 10.00 140.00

120.00

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113,(Sept 7

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80.00

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60.00

Sect 3 40.00

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20.02

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Uplift 115.21 k Moment 2.340.02 kNoment loe 888.23 k-ft Vert 129.90 k Tot Down 20.61 k Tot Down loe 86.96 k Horiz 14.22 k Tot Shear 24.05 k Tot Shear loe 8.99 k

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Loads: 95 mph no ice 50 mph w / 3/4" radial ice Site Class: D Ss: 0.19 S1: 0.06 60 mph Serviceability

tion		
oh Informa		
	Ś	

Location : Levesque CT, CT Shape : Triangle Tower: 275375 Code: ANSI/TIA-222-G Client: T- Mobile

20.78 ft	: 6.42 ft
Width	Top Width:
Base	Top

		Se	Sections Properties	
Section	Section Leg Members	pers	Diagonal Members	Horizontal Members
-	PST 50 ksi		SAE 50 ksi 3.5X3.5X0.25	
2 - 3	PX 50 ksi	4" DIA PIPE	SAE 50 ksi 3X3X0.1875	
4 - 5	PX 50 ksi		SAE 36 ksi 2.5X2.5X0.1875	
9	PX 50 ksi		SAE 36 ksi 2X2X0.1875	SAE 36 ksi 3X3X0.1875
7	PX 50 ksi		SAE 36 ksi 2X2X0.1875	
8	PX 50 ksi		SAE 36 ksi 1.5X1.5X0.125	SAE 36 ksi 2X2X0.125
တ	PST 50 ksi	2" DIA PIPE	SAE 36 ksi 1.5X1.5X0.125	
10	PST 50 ksi	2" DIA PIPE	SAE 36 ksi 1.5X1.5X0.125	SAE 36 ksi 2X2X0.125
			Discrete Appurtenance	ance
	ш	Elev		
		1447		

		_	Discrete Appurtenance
Elev			
(tt)	Type	Qty	Description
180.00	Whip	2	15' Omni
174.00	Straight Arm	3	Round Side Arm
174.00	Whip	_	12' Omni
162.00	Panel	e	Commscope LNX-6515DS-VTM
162.00	Panel	e	Ericsson RRUS 11
162.00	Panel	က	Ericsson AR 21, 1,3M, B4A B2P
162.00	Panel	e	Ericsson AR 21, 1.3M, B2A
162.00	Panel	e	Ericsson KRY 112 144/1
162.00	Mounting Frame	Frame 3	Round Sector Frame
103.00	Whip	_	18' Dipole
61.00	Straight Arm	-	Round Side Arm
61.00	Whin	_	18' Omni
55.00	Straight Arm	- -	Round Side Arm
55.00	Whip	_	18' Omni
45.00	Whip	-	10' Dipole
			Linear Appurtenance
Elev	Elev (ft)		
From	To	Qty De	Description
5.000	180.00	2 112	1/2" Coax
5.000	174.00	1 1/2	1/2" Coax
5.000	162.00	1 Wa	Maveguide
5.000	162.00	1 15/	5/8" Hybriflex
5.000	162.00	12 1 5	5/8" Coax
5.000	103.00	1 1/2	I/2" Coax
5.000	61.000	1 1/2	I/2" Coax
5.000	55.000	1 1/2	1/2" Coax
5.000	45.000	1 1/2	1/2" Coax

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Site Name: Customer: Levesque CT, CT

T- Mobile

Engineering Number: 61590621

Code:

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Analysis Parameters

Height (ft):

Location:

New Haven County, CT

Code:

ANSI/TIA-222-G

Triangle

180

Shape:

Base Elevation (ft):

0.00

Tower Manufacturer:

Rohn

Bottom Face Width (ft): Top Face Width (ft):

20.78

Tower Type:

Self Support

6.42

Ice & Wind Parameters

Structure Class:

Crest Height:

П

Design Windspeed Without Ice:

95 mph

Exposure Category:

В 1

Design Windspeed With Ice:

50 mph

Topographic Catagory:

0.0 ft

Operational Windspeed: Design Ice Thickness:

60 mph

0.75 in

Seismic Parameters

Analysis Method:

Equivalent Modal Analysis & Equivalent Lateral Force Methods

Site Class:

D - Stiff Soil

Period Based on Rayleigh Method (sec):

0.84

1.3

Cs:

0.041

T_L(sec): Ss:

6 0.186 p:

0.064

Cs, Max:

0.041

Fa:

1.600

S,: F_v:

2.400

Cs, Min:

0.030

S_{ds}:

0.198

S_{d1}:

0.102

Load Cases

1.2D + 1.6W Normal 95 mph Normal to Face with No Ice

1.2D + 1.6W 60 deg

95 mph 60 degree with No Ice

1.2D + 1.6W 90 deg

95 mph 90 degree with No Ice

0.9D + 1.6W Normal

95 mph Normal to Face with No Ice (Reduced DL)

0.9D + 1.6W 60 deg

95 mph 60 deg with No Ice (Reduced DL)

0.9D + 1.6W 90 deg

95 mph 90 deg with No Ice (Reduced DL)

1.2D + 1.0Di + 1.0Wi Normal 1.2D + 1.0Di + 1.0Wi 60 deg

50 mph Normal with 0.75 in Radial Ice 50 mph 60 degree with 0.75 in Radial Ice

1.2D + 1.0Di + 1.0Wi 90 deg

50 mph 90 degree with 0.75 in Radial Ice

(1.2 + 0.2Sds) * DL + E Normal (1.2 + 0.2Sds) * DL + E 60 deg

Seismic Normal Seismic 60 degree

(1.2 + 0.2Sds) * DL + E90 deg

Seismic 90 degree

(0.9 - 0.2Sds) * DL + E Normal (0.9 - 0.2Sds) * DL + E 60 deg

Seismic (Reduced DL) Normal Seismic (Reduced DL) 60 degree

(0.9 - 0.2Sds) * DL + E 90 deg

Seismic (Reduced DL) 90 degree

1.0D + 1.0W Service Normal 1.0D + 1.0W Service 60 deg 1.0D + 1.0W Service 90 deg

Serviceability - 60 mph Wind Normal Serviceability - 60 mph Wind 60 degree Serviceability - 60 mph Wind 90 degree

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Site Name: Levesque CT, CT
Customer: T- Mobile

Engineering Number: 61590621

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Tower Loading

Code:

Discrete Appurtenance Properties 1.2D + 1.6W

Elevation Description (ft)	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
180.0 15' Omni	2	40	4.5	15.0	3.0	3.0	1.00	1.00	7.0	1988.4	23.21	284	115
174.0 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	6.0	674.4	22.96	112	58
174.0 Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	22.73	323	648
162.0 Commscope LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.84	0.0	0.0	22.28	699	217
162.0 Ericsson AIR 21,	3	83	6.1	4.7	12.0	8.0	0.80	0.86	0.0	0.0	22.28	378	359
162.0 Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.85	0.0	0.0	22.28	376	352
162.0 Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	22.28	15	48
162.0 Ericsson RRUS 11	3	50	2.6	1.5	17.3	7.2	0.80	0.67	0.0	0.0	22.28	125	216
162.0 Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	22.28	736	1296
103.0 18' Dipole	1	55	6.8	18.0	3.0	0.0	1.00	1.00	9.0	1661.1	20.05	185	79
61.00 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	11.0	1427.3	17.67	130	79
61.00 Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.85	119	216
55.00 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	11.0	1392.3	17.23	127	79
55.00 Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.36	116	216
45.00 10' Dipole	1	30	3.8	10.0	3.0	3.0	1.00	1.00	5.0	407.1	15.92	81	43
Totals	30	2792	182.8										

Discrete Appurtenance Properties 0.9D + 1.6W

Elevation Description (ft)	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) I (Ib)	P _a (DL) (lb)
180.0 15' Omni	2	40	4.5	15.0	3.0	3.0	1.00	1.00	7.0	1988.4	23.21	284	65
174.0 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	6.0	674.4	22.96	112	32
174.0 Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	22.73	323	365
162.0 Commscope LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.84	0.0	0.0	22.28	699	122
162.0 Ericsson AIR 21,	3	83	6.1	4.7	12.0	8.0	0.80	0.86	0.0	0.0	22.28	378	202
162.0 Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.85	0.0	0.0	22.28	376	198
162.0 Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	22.28	15	27
162.0 Ericsson RRUS 11	3	50	2.6	1.5	17.3	7.2	0.80	0.67	0.0	0.0	22.28	125	122
162.0 Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	22.28	736	729
103.0 18' Dipole	1	55	6.8	18.0	3.0	0.0	1.00	1.00	9.0	1661.1	20.05	185	45
61.00 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	11.0	1427.3	17.67	130	45
61.00 Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.85	119	122
55.00 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	11.0	1392.3	17.23	127	45
55.00 Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.36	116	122
45.00 10' Dipole	1	30	3.8	10.0	3.0	3.0	1.00	1.00	5.0	407.1	15.92	81	24
Totals	30	2792	182.8										

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation Description (ft)	Qty	lce Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
180.0 15' Omni	2	241	10.0	15.0	3.0	3.0	1.00	1.00	7.0	764.6	6.43	109	599
174.0 12' Omni	1	202	7.7	12.0	3.0	3.0	1.00	1.00	6.0	248.9	6.36	41	252
174.0 Round Side Arm	3	224	8.0	0.0	0.0	0.0	1.00	0.67	0.0	0.0	6.30	86	915
162.0 Commscope LNX-	3	318	13.1	8.0	11.9	7.1	0.80	0.84	0.0	0.0	6.17	139	1180
162.0 Ericsson AIR 21,	3	255	7.2	4.7	12.0	8.0	0.80	0.86	0.0	0.0	6.17	78	976
162.0 Ericsson AIR 21,	3	253	7.2	4.7	12.1	7.9	0.80	0.85	0.0	0.0	6.17	77	970
162.0 Ericsson KRY 112	3	28	0.6	0.6	6.1	2.7	0.80	0.50	0.0	0.0	6.17	4	108
162.0 Ericsson RRUS 11	3	133	3.2	1.5	17.3	7.2	0.80	0.67	0.0	0.0	6.17	27	514

Customer: T- Mobile

Site Name:

Levesque CT, CT

Code:

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Engineering Number: 61590621

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Tower Loading

Round Sector Frame	3	673	31.2	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.17	276	2640
18' Dipole	1	248	17.1	18.0	3.0	0.0	1.00	1.00	9.0	727.3	5.55	81	311
18' Omni	1	268	11.4	18.0	3.0	3.0	1.00	1.00	11.0	521.2	4.89	47	335
Round Side Arm	1	218	7.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.67	31	298
18' Omni	1	259	11.2	18.0	3.0	3.0	1.00	1.00	11.0	499.5	4.77	45	324
Round Side Arm	1	216	7.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.53	29	295
10' Dipole	1	130	9.1	10.0	3.0	3.0	1.00	1.00	5.0	171.2	4.41	34	163
Totals	30	7674	303.4										
	18' Dipole 18' Omni Round Side Arm 18' Omni Round Side Arm 10' Dipole	18' Dipole 1 18' Omni 1 Round Side Arm 1 18' Omni 1 Round Side Arm 1 10' Dipole 1	18' Dipole 1 248 18' Omni 1 268 Round Side Arm 1 218 18' Omni 1 259 Round Side Arm 1 216 10' Dipole 1 130	18' Dipole 1 248 17.1 18' Omni 1 268 11.4 Round Side Arm 1 218 7.7 18' Omni 1 259 11.2 Round Side Arm 1 216 7.6 10' Dipole 1 130 9.1	18' Dipole 1 248 17.1 18.0 18' Omni 1 268 11.4 18.0 Round Side Arm 1 218 7.7 0.0 18' Omni 1 259 11.2 18.0 Round Side Arm 1 216 7.6 0.0 10' Dipole 1 130 9.1 10.0	18' Dipole 1 248 17.1 18.0 3.0 18' Omni 1 268 11.4 18.0 3.0 Round Side Arm 1 218 7.7 0.0 0.0 18' Omni 1 259 11.2 18.0 3.0 Round Side Arm 1 216 7.6 0.0 0.0 10' Dipole 1 130 9.1 10.0 3.0	18' Dipole 1 248 17.1 18.0 3.0 0.0 18' Omni 1 268 11.4 18.0 3.0 3.0 Round Side Arm 1 218 7.7 0.0 0.0 0.0 18' Omni 1 259 11.2 18.0 3.0 3.0 Round Side Arm 1 216 7.6 0.0 0.0 0.0 10' Dipole 1 130 9.1 10.0 3.0 3.0	18' Dipole 1 248 17.1 18.0 3.0 0.0 1.00 18' Omni 1 268 11.4 18.0 3.0 3.0 1.00 Round Side Arm 1 218 7.7 0.0 0.0 0.0 1.00 18' Omni 1 259 11.2 18.0 3.0 3.0 1.00 Round Side Arm 1 216 7.6 0.0 0.0 0.0 1.00 10' Dipole 1 130 9.1 10.0 3.0 3.0 1.00	18' Dipole 1 248 17.1 18.0 3.0 0.0 1.00 1.00 18' Omni 1 268 11.4 18.0 3.0 3.0 1.00 1.00 Round Side Arm 1 218 7.7 0.0 0.0 0.0 1.00 1.00 18' Omni 1 259 11.2 18.0 3.0 3.0 1.00 1.00 Round Side Arm 1 216 7.6 0.0 0.0 0.0 1.00 1.00 10' Dipole 1 130 9.1 10.0 3.0 3.0 1.00 1.00	18' Dipole 1 248 17.1 18.0 3.0 0.0 1.00 1.00 9.0 18' Omni 1 268 11.4 18.0 3.0 3.0 1.00 1.00 11.0 Round Side Arm 1 218 7.7 0.0 0.0 0.0 1.00 1.00 0.0 18' Omni 1 259 11.2 18.0 3.0 3.0 1.00 1.00 11.0 Round Side Arm 1 216 7.6 0.0 0.0 0.0 1.00 1.00 0.0 10' Dipole 1 130 9.1 10.0 3.0 3.0 1.00 1.00 5.0	18' Dipole 1 248 17.1 18.0 3.0 0.0 1.00 1.00 9.0 727.3 18' Omni 1 268 11.4 18.0 3.0 3.0 1.00 1.00 11.0 521.2 Round Side Arm 1 218 7.7 0.0 0.0 0.0 1.00 1.00 0.0 0.0 18' Omni 1 259 11.2 18.0 3.0 3.0 1.00 1.00 11.0 499.5 Round Side Arm 1 216 7.6 0.0 0.0 0.0 1.00 1.00 0.0 0.0 10' Dipole 1 130 9.1 10.0 3.0 3.0 1.00 1.00 5.0 171.2	18' Dipole 1 248 17.1 18.0 3.0 0.0 1.00 1.00 9.0 727.3 5.55 18' Omni 1 268 11.4 18.0 3.0 3.0 1.00 1.00 11.0 521.2 4.89 Round Side Arm 1 218 7.7 0.0 0.0 0.0 1.00 1.00 0.0 0.0 4.67 18' Omni 1 259 11.2 18.0 3.0 3.0 1.00 1.00 11.0 499.5 4.77 Round Side Arm 1 216 7.6 0.0 0.0 0.0 1.00 1.00 0.0 0.0 4.53 10' Dipole 1 130 9.1 10.0 3.0 3.0 1.00 1.00 5.0 171.2 4.41	18' Dipole 1 248 17.1 18.0 3.0 0.0 1.00 9.0 727.3 5.55 81 18' Omni 1 268 11.4 18.0 3.0 3.0 1.00 1.00 11.0 521.2 4.89 47 Round Side Arm 1 218 7.7 0.0 0.0 0.0 1.00 1.00 0.0 0.0 4.67 31 18' Omni 1 259 11.2 18.0 3.0 3.0 1.00 1.00 11.0 499.5 4.77 45 Round Side Arm 1 216 7.6 0.0 0.0 0.0 1.00 1.00 0.0 0.0 4.53 29 10' Dipole 1 130 9.1 10.0 3.0 3.0 1.00 1.00 5.0 171.2 4.41 34

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation Description (ft)	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor		M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
180.0 15' Omni	2	40	4.5	15.0	3.0	3.0	1.00	1.00	7.0	495.7	9.26	71	80
174.0 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	6.0	168.1	9.16	28	40
174.0 Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	9.07	81	450
162.0 Commscope LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.84	0.0	0.0	8.89	174	151
162.0 Ericsson AIR 21,	3	83	6.1	4.7	12.0	8.0	0.80	0.86	0.0	0.0	8.89	94	249
162.0 Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.85	0.0	0.0	8.89	94	245
162.0 Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	8.89	4	33
162.0 Ericsson RRUS 11	3	50	2.6	1.5	17.3	7.2	0.80	0.67	0.0	0.0	8.89	31	150
162.0 Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.89	184	900
103.0 18' Dipole	1	55	6.8	18.0	3.0	0.0	1.00	1.00	9.0	414.1	8.00	46	55
61.00 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	11.0	355.8	7.05	32	55
51.00 Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.72	30	150
55.00 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	11.0	347.1	6.87	32	55
55.00 Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.53	29	150
15.00 10' Dipole	1	30	3.8	10.0	3.0	3.0	1.00	1.00	5.0	101.5	6.35	20	30
Totals	30	2792	182.8										

Customer: T- Mobile

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Site Name:

Levesque CT, CT

Engineering Number: 61590621

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Tower Loading

Linear Appurtenance Properties

Elev	Elev									Out			
From	To			Width	Weight	Pct	Spread On	Bundling	Cluster	Of	Spacing	Orientation	Ka
(ft)	(ft)	Description	Qty	(in)	(lb/ft)	In Block	Faces	Arrangement	Dia (in)	Zone	(in)	Factor	Overrid
5.00	180.0	1/2" Coax	2	0.63	0.15	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	174.0	1/2" Coax	1	0.63	0.15	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	162.0	1 5/8" Coax	12	1.98	0.82	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	162.0	1 5/8" Hybriflex	1	1.98	1.30	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
5.00	162.0	Waveguide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	103.0	1/2" Coax	1	0.63	0.15	0	1	Individual	0.00	N	1.00	1.00	0.01
5.00	61.00	1/2" Coax	1	0.63	0.15	0	2	Individual	0.00	N	1.00	1.00	0.01
5.00	55.00	1/2" Coax	1	0.63	0.15	0	3	Individual	0.00	N	1.00	1.00	0.01
5.00	45.00	1/2" Coax	1	0.63	0.15	0	3	Individual	0.00	N	1.00	1.00	0.01

Customer:

Site Name:

T- Mobile

Levesque CT, CT

Code:

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Engineering Number: 61590621

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Force/Stress Summary

Section: 1 1		Bot Elev (ft): 0.0	00		Heig	ght (f	t): 20	0.000)						
													Shear	Bea	r	
	Pu		Len	Bra	acing	3 %		F'y	Phi	c Pn	Num	Num	phiRny	v phiR	n Use	•
Max Compression Member	(kip)	Load Case	(ft)	X	Υ	Z	KL/R	(ksi)	()	(qi)	Bolts	Holes	(kip)	(kip) %	Controls
LEG PST - 5" DIA PIPE	-133.34	1.2D + 1.6W	9.64	100	100	100	61.5	50.	0 14	6.70	0	0	0.00	0.0	00 90	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.	0	0.00	0	0	0.00	0.0	00 0)
DIAG SAE - 3.5X3.5X0.25	-4.63	1.2D + 1.6W 90	21.56	50	50	50	186.5	42.	0 1	0.98	1	1	12.43	19.5	50 42	2 Member Z
										Sh	ear	Bea	ar			
Max Tension Member	Pu (kip)	Load Case	Fy (ksi) (k:		Phit P (kip)			um oles		Rnv ip)	phif (kij		se %	Contro	ols
LEG PST - 5" DIA PIPE		1.2D + 1.6W 60			65	193.5)	0	•	0.00		.00		Membe	r
HORIZ	0.00			0	0	0.0)	0		0.00		.00	0	TTIOT TIES	
DIAG SAE - 3.5X3.5X0.25		1.2D + 1.6W 90	5		65	54.9		1	1		2.43		.70		Bolt Be	ar
	Pu			phiR	nt	116	se	Num								
Max Splice Forces	(kip)	Load Case		(kip		_	6	Bolts	В	olt Ty	pe					
Top Tension	103.44	0.9D + 1.6W 60		0.	.00		0	0								
Top Compression	122.47	1.2D + 1.6W		0.	.00		0									
Bot Tension	115.89	0.9D + 1.6W 60		242.	.28	4	8	4	1"	A354	4-BC					
Bot Compression	137.26	1.2D + 1.6W		0.	.00		0									
Section: 2 2		Bot Elev (ft): 20.	00		Heig	ght (f	t): 20	0.000)					-	
													Shear			
	Pu		Len	Bra	acing	1 %		F'y	Phi	c Pn	Num	Num	phiRny	/ phiR	n Use	
Max Compression Member	(kip)	Load Case	(ft)	X	Υ	Z	KL/R	(ksi)	(k	(qi)	Bolts	Holes	(kip)	(kip) %	Controls
LEG PX - 4" DIA PIPE															•	
	-118.15	1.2D + 1.6W	9.64	100	100		78.2	50.	0 12	6.94	0	0	0.00	0.0	0 93	Member X
HORIZ	-118.15 0.00	1.2D + 1.6W	9.64 0.000	100 0	100	100	78.2 0.0	50. 0.		6.94 0.00			0.00			
	0.00	1.2D + 1.6W 1.2D + 1.6W 90	0.000			100 0		0.	0		0	0		0.0	0 0	
HORIZ	0.00		0.000	0	0	100 0	0.0	0.	0	0.00 5.70	0 0 1	0 0 1	0.00 12.43	0.0	0 0	
HORIZ	0.00		0.000 20.64	0 50	0 50	100 0 50	0.0 207.8	0.44.	0	0.00 5.70 She	0 0 1	0 0 1	0.00 12.43 ar	0.0 0.0 14.6	0 0	
HORIZ	0.00 -4.24		0.000 20.64 Fy	0	0 50	100 0	0.0 207.8 n Nur	0.44. 44.	0	0.00 5.70 She	0 0 1 ear	0 0 1	0.00 12.43 ar Rn U	0.0 0.0 14.6	0 0	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE	0.00 -4.24 Pu (kip)	1.2D + 1.6W 90	0.000 20.64 Fy	0 50 Fi) (ks	0 50	100 0 50 Phit P	0.0 207.8 n Nur Bolf	0.44.4 n N	0 0 um	0.00 5.70 She phii (ki	0 0 1 ear	0 0 1 Bea phis (kip	0.00 12.43 ar Rn U	0.0 0.0 14.6 s e	00 0 3 74	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE HORIZ	0.00 -4.24 Pu (kip)	1.2D + 1.6W 90 Load Case	0.000 20.64 Fy (ksi	0 50 Fi) (ks	0 50 u si)	100 0 50 Phit P (kip)	0.0 207.8 n Nur Boli	0.44.4 n N	0 0 um oles	0.00 5.70 She phil (ki	0 0 1 ear Rnv	0 0 1 Bea phif (kip	0.00 12.43 ar Rn U	0.0 0.0 14.6 s e	00 0 3 74 Contro	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE	0.00 -4.24 Pu (kip) 103.59 0.00	1.2D + 1.6W 90 Load Case	0.000 20.64 Fy (ksi	0 50 Fi) (ks	0 50 si)	100 0 50 Phit P (kip)	0.0 207.8 n Nur Boli 5 (0. 44. m Notes He	um oles	0.00 5.70 She phil (ki	0 0 1 ear Rnv ip)	0 0 1 Bea phiF (kip 0	0.00 12.43 ar Rn U: 0) 5	0.0 0.0 14.6 see %	00 0 3 74 Contro	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE HORIZ DIAG SAE - 3X3X0.1875	0.00 -4.24 Pu (kip) 103.59 0.00 4.24	1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 90	0.000 20.64 Fy (ksi	0 50 Fi) (ks	0 50 si) 65 0 65	100 0 50 Phit P (kip) 198.44 0.00 34.7	0.0 207.8 n Nur Bolt 5 (0 0 (1	0.44.4 Man Notes Ho	um oles 0 0	0.00 5.70 She phil (ki	0 0 1 ear Rnv ip) 0.00	0 0 1 Bea phiF (kip 0	0.00 12.43 ar Rn Us o) 5	0.0 0.0 14.6 see %	00 0 3 74 Contro	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE HORIZ	0.00 -4.24 Pu (kip) 103.59 0.00 4.24	1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60	0.000 20.64 Fy (ksi	0 50 Fi) (ks	0 50 si) 65 0 65	100 0 50 Phit P (kip) 198.44 0.00 34.7	0.0 207.8 n Nur Bolt 5 (0 0 (1	0 44 m Nits He	um oles 0 0	0.00 5.70 She phil (ki	0 0 1 ear Rnv ip) 0.00 0.00 2.43	0 0 1 Bea phiF (kip 0	0.00 12.43 ar Rn Us o) 5	0.0 0.0 14.6 see %	00 0 3 74 Contro	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE HORIZ DIAG SAE - 3X3X0.1875	0.00 -4.24 Pu (kip) 103.59 0.00 4.24 Pu (kip)	1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 90	0.000 20.64 Fy (ksi	0 50 Fi) (ks 0 0 0 phiR (kip	0 50 si) 65 0 65	100 0 50 Phit P (kip) 198.4: 0.00 34.7	0.0 207.8 n Nur Bolt 5 (0 0 (1	0.44.4 Man Notes Ho	um oles 0 0	0.00 5.70 She phii (ki	0 0 1 ear Rnv ip) 0.00 0.00 2.43	0 0 1 Bea phiF (kip 0	0.00 12.43 ar Rn Us o) 5	0.0 0.0 14.6 see %	00 0 3 74 Contro	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE HORIZ DIAG SAE - 3X3X0.1875 Max Splice Forces	0.00 -4.24 Pu (kip) 103.59 0.00 4.24 Pu (kip)	1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 90 Load Case	0.000 20.64 Fy (ksi	0 50 Fu) (ks 0 0 0 phiR (kip	0 50 si) 65 0 65	100 0 50 Phit P (kip) 198.44 0.00 34.7	0.0 207.8 n Nur Bolt 5 (0 1 1	0.44.4 Mis Ho	um oles 0 0	0.00 5.70 She phii (ki	0 0 1 ear Rnv ip) 0.00 0.00 2.43	0 0 1 Bea phiF (kip 0	0.00 12.43 ar Rn Us o) 5	0.0 0.0 14.6 see %	00 0 3 74 Contro	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE HORIZ DIAG SAE - 3X3X0.1875 Max Splice Forces Top Tension	0.00 -4.24 Pu (kip) 103.59 0.00 4.24 Pu (kip) 90.28 106.58	1.2D + 1.6W 90 Load Case 0.9D + 1.6W 90 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60	0.000 20.64 Fy (ksi	0 50 Fu) (ks 0 0 0 phiR (kip	0 50 50 50 65 0 65 0 65	100 0 50 Phit P (kip) 198.44 0.00 34.7	0.0 207.8 n Nur Bolt 5 (0 0 (1 1 1	0.44.4 Mis Ho	oum bles 0 0 1	0.00 5.70 She phii (ki	0 0 1 ear Rnv ip) 0.00 0.00 2.43	0 0 1 Bea phiF (kip 0	0.00 12.43 ar Rn Us o) 5	0.0 0.0 14.6 see %	00 0 3 74 Contro	Member Z
HORIZ DIAG SAE - 3X3X0.1875 Max Tension Member LEG PX - 4" DIA PIPE HORIZ DIAG SAE - 3X3X0.1875 Max Splice Forces Top Tension Top Compression	Pu (kip) 103.59 0.00 4.24 Pu (kip) 90.28 106.58 103.44	1.2D + 1.6W 90 Load Case 0.9D + 1.6W 90 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 60	0.000 20.64 Fy (ksi	0 50 Fi (ks 0 0 0 0. 218.	0 50 50 50 65 0 65 0 65	100 0 50 Phit P (kip) 198.44 0.00 34.7' Us	0.0 207.8 n Nur Bolt 5 (0 0 (1 1 1	0.44.44.1 Mis Ho	oum bles 0 0 1	0.00 5.70 She phil (ki	0 0 1 ear Rnv ip) 0.00 0.00 2.43	0 0 1 Bea phiF (kip 0	0.00 12.43 ar Rn Us o) 5	0.0 0.0 14.6 see %	00 0 3 74 Contro	Member Z

Site Name: Levesque CT, CT

Customer: T- Mobile

Code:

ANSI/TIA-222-G

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3/24/2015 11:16:12 AM

Force/Stress Summary

Engineering Number: 61590621

Section: 3 3		Bot Elev (ft): 40.	00	Hei	ght (f	t): 20	.000						
	-										Shear			
	Pu		Len		ing %			Phic Pr			_	-	n Use	
Max Compression Member	(kip)	Load Case	(ft)	X	Y Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip) %	Controls
LEG PX - 4" DIA PIPE	-102.15	1.2D + 1.6W	9.64	100 1	00 100	78.2	50.0	126.9	4 0	0	0.00	0.0	0 80	Member X
HORIZ	0.00		0.000	0	0 0	0.0	0.0	0.0	0 0	0	0.00	0.0	0 0	
DIAG SAE-3X3X0.1875	-4.04	1.2D + 1.6W 90	18.89	50	50 50	190.3	44.0	6.8	0 1	1	12.43	14.6	3 59	Member Z
									hear	Bea	ar			
Max Tanaina Manakaa	Pu	Land Cons	Fy	Fu		n Nu			niRnv	phiF		se	Contro	lo.
Max Tension Member	(kip)	Load Case	(ksi) (ksi	(kip) Bol	ts Ho	les (kip)	(ki	p) '	%	Contro	is
LEG PX - 4" DIA PIPE		1.2D + 1.6W 60	50				0	0	0.00	0	.00	45	Member	
HORIZ	0.00)	0 0.	00	0	0	0.00	0	.00	0		
DIAG SAE-3X3X0.1875	4.04	1.2D + 1.6W 90	50	0 6	5 34.	71	1	1	12.43	8	.77	46	Bolt Bea	ır
	Pu			phiRn	f (Js e	Num							
Max Splice Forces	(kip)	Load Case		(kip)		%	Bolts	Bolt T	уре					
Top Tension	76.64	0.9D + 1.6W 60		0.0)	0	0							
Top Compression	89.93	1.2D + 1.6W		0.0)	0								
Bot Tension	90.28	0.9D + 1.6W 60		166.2	1	54	4	7/8 A	325					
Bot Compression	106.58	1.2D + 1.6W		0.0)	0								
Section: 4 4		Bot Elev (ft): 60.	00	Hei	ght (f	t): 20.	.000						
			,								Shear	Bear	r	
	Pu		Len	Brac	ing %		F'y	Phic Pr	Num	Num				
Max Compression Member		Load Case	Len (ft)		ing % Y Z	KL/R	F'y (ksi)			Num Holes	phiRnv	phiR	n Use	Controls
	(kip)		(ft)	Х			(ksi)	(kip)	Bolts		phiRnv	phiR	n Use) %	
LEG PX - 3" DIA PIPE	(kip)	Load Case	(ft)	Х	Y Z	67.7	(ksi) 50.0	(kip) 97.22	Bolts 2 0	Holes	phiRnv (kip)	/phiR (kip	n Use) % 0 89	
LEG PX - 3" DIA PIPE HORIZ	(kip) -86.85 0.00	Load Case	(ft) 6.43 0.000	X 100 1	Y Z	67.7	50.0 0.0	97.22 0.00	Bolts 2 0 0 0	Holes 0	phiRnv (kip) 0.00	/ phiRi (kip	0 89 0 0	Member X
Max Compression Member LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875	(kip) -86.85 0.00	Load Case 1.2D + 1.6W	(ft) 6.43 0.000	X 100 1 0	Y Z	67.7	50.0 0.0	97.22 0.00 5.59	Bolts 2 0 0 0 9 1	O 0 1	0.00 0.00 0.7.95	/ phiRi (kip 0.0 0.0	0 89 0 0	
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875	-86.85 0.00 -3.02	1.2D + 1.6W 1.2D + 1.6W 90	6.43 0.000 15.75	X 100 1 0 50	Y Z 00 100 0 0 50 50	67.7 0.0 191.0	(ksi) 50.0 0.0 36.0 m Nu	97.22 0.00 5.59 m pt	Bolts 2 0 0 0 1 hear	Holes 0 0	9hiRnv (kip) 0.00 0.00 7.95	(kip 0.0 0.0 10.4	0 89 0 0 4 54	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875	-86.85 0.00 -3.02	Load Case 1.2D + 1.6W	6.43 0.000 15.75	X 100 1 0 50	Y Z 00 100 0 0 50 50	67.7 0.0 191.0 Pn Nu	(ksi) 50.0 0.0 36.0 m Nu	97.22 0.00 5.59 m pt	Bolts 2 0 0 0 1 hear	0 0 1	phiRnv (kip) 0.00 0.00 7.95	0.0 0.0 0.0 10.4	0 89 0 0	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Tension Member LEG PX - 3" DIA PIPE	(kip) -86.85 0.00 -3.02 Pu (kip)	1.2D + 1.6W 1.2D + 1.6W 90	6.43 0.000 15.75	X 100 1 0 50 Fu) (ksi	Y Z 00 100 0 0 50 50 Phit	67.7 0.0 191.0 Pn Nui	50.0 0.0 36.0 m Nuts Ho	97.22 0.00 5.59 m pt	Bolts 2 0 0 0 1 hear	O 0 1 Bea phif (kij	phiRnv (kip) 0.00 0.00 7.95	0.0 0.0 0.0 10.4	0 89 0 0 4 54	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Tension Member LEG PX - 3" DIA PIPE	(kip) -86.85 0.00 -3.02 Pu (kip)	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case	6.43 0.000 15.75 Fy (ksi	X 100 1 0 50 Fu) (ksi	Y Z 00 100 0 0 50 50 Phit	67.7 0.0 191.0 Pn Nui	50.0 0.0 36.0 m Nuts Ho	97.22 0.00 5.59 m ph les (Bolts 2 0 0 0 9 1 hear niRnv kip)	Holes 0 0 1 BeaphiF (kij	phiRnv (kip) 0.00 0.00 7.95	0.0 0.0 0.0 10.4	n Use) % 0 89 0 0 4 54	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Tension Member LEG PX - 3" DIA PIPE HORIZ	(kip) -86.85 0.00 -3.02 Pu (kip) 76.81 0.00	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case	(ft) 6.43 0.000 15.75 Fy (ksi	X 100 1 0 50 Fu) (ksi	Y Z 00 100 0 0 50 50 Phit i (kip) 5 135.5 0 0.6	67.7 0.0 191.0 Pn Nui) Bol	50.0 0.0 36.0 m Nuts Ho	97.22 0.00 5.59 Sm pt les (Bolts 2 0 0 0 1 hear niRnv kip) 0.00	Holes 0 0 1 1 BeaphiF (kij	phiRnv (kip) 0.00 0.00 7.95	0.0 0.0 10.4 56 0	n Use) % 0 89 0 0 4 54	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Tension Member LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875	(kip) -86.85 0.00 -3.02 Pu (kip) 76.81 0.00	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60	6.43 0.000 15.75 Fy (ksi	X 100 1 0 50 Fu) (ksi	Y Z 00 100 0 0 50 50 Phit (kip) 5 135.6 0 0.0 3 25.6	67.7 0.0 191.0 Pn Nui) Bol	50.0 0.0 36.0 m Nuts Ho	97.22 0.00 5.55 Sim priles (Bolts 2 0 0 0 1 hear niRnv kip) 0.00 0.00	Holes 0 0 1 1 BeaphiF (kij	phiRnv (kip) 0.00 0.00 7.95 ar Rn Use 0) '	0.0 0.0 10.4 56 0	n Use) % 0 89 0 0 4 54 Contro	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Tension Member LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875	Pu (kip) 76.81 0.00 3.04	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60	6.43 0.000 15.75 Fy (ksi	X 100 1 0 50 Fu) (ksi	Y Z 00 100 0 0 50 50 Phit (kip) 5 135.9 0 0.0 3 25.0	67.7 0.0 191.0 Pn Nui) Bol	(ksi) 50.0 0.0 36.0 m Nu ts Ho	97.22 0.00 5.55 Sim priles (Bolts 2 0 0 0 9 1 hear niRnv kip) 0.00 0.00 7.95	Holes 0 0 1 1 BeaphiF (kij	phiRnv (kip) 0.00 0.00 7.95 ar Rn Use 0) '	0.0 0.0 10.4 56 0	n Use) % 0 89 0 0 4 54 Contro	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Tension Member LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Splice Forces	(kip) -86.85 0.00 -3.02 Pu (kip) 76.81 0.00 3.04 Pu (kip)	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 90	6.43 0.000 15.75 Fy (ksi	X 100 1 0 50 Fu (ksi) (ksi) 6) 6 5	Y Z 00 100 0 0 50 50 Phit 0 (kip) 5 135.9 0 0.0 8 25.0	67.7 0.0 191.0 Pn Nui) Bol 00	(ksi) 50.0 0.0 36.0 m Nuts Ho 0 1 Num Bolts	(kip) 97.22 0.00 5.55 S m priles (0 0	Bolts 2 0 0 0 9 1 hear niRnv kip) 0.00 0.00 7.95	Holes 0 0 1 1 BeaphiF (kij	phiRnv (kip) 0.00 0.00 7.95 ar Rn Use 0) '	0.0 0.0 10.4 56 0	n Use) % 0 89 0 0 4 54 Contro	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Tension Member	(kip) -86.85 0.00 -3.02 Pu (kip) 76.81 0.00 3.04 Pu (kip) 64.36	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 90 1.2D + 1.6W 90	6.43 0.000 15.75 Fy (ksi	X 100 1 0 50 Fu) (ksi) 6) 6) 6 phiRn (kip)	Y Z 00 100 0 0 50 50 Phit 1 0 (kip) 5 135.9 0 0.0 3 25.0	67.7 0.0 191.0 Pn Nui) Bol 00 00 00	(ksi) 50.0 0.0 36.0 m Nuts Ho 0 1	(kip) 97.22 0.00 5.55 S m priles (0 0	Bolts 2 0 0 0 9 1 hear niRnv kip) 0.00 0.00 7.95	Holes 0 0 1 1 BeaphiF (kij	phiRnv (kip) 0.00 0.00 7.95 ar Rn Use 0) '	0.0 0.0 10.4 56 0	n Use) % 0 89 0 0 4 54 Contro	Member X Member Z
LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Tension Member LEG PX - 3" DIA PIPE HORIZ DIAG SAE - 2.5X2.5X0.1875 Max Splice Forces Top Tension	(kip) -86.85 0.00 -3.02 Pu (kip) 76.81 0.00 3.04 Pu (kip) 64.36 74.97	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 90 Load Case 0.9D + 1.6W 90	(ft) 6.43 0.000 15.75 Fy (ksi) 50 36	X 100 1 0 50 Fu) (ksi) 6 5 phiRn (kip) 0.00	Y Z 00 100 0 0 50 50 Phit 1 0 (kip) 5 135.9 0 0.0 3 25.0	67.7 0.0 191.0 Pn Nui) Bol 00 00 00 00 00	(ksi) 50.0 0.0 36.0 m Nuts Ho 0 1 Num Bolts	(kip) 97.22 0.00 5.55 S m priles (0 0	Bolts 2 0 0 0 9 1 hear hiRnv kip) 0.00 0.00 7.95	Holes 0 0 1 1 BeaphiF (kij	phiRnv (kip) 0.00 0.00 7.95 ar Rn Use 0) '	0.0 0.0 10.4 56 0	n Use) % 0 89 0 0 4 54 Contro	Member X Member Z

Customer:

Site Name: Levesque CT, CT

T- Mobile

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Code:

ANSI/TIA-222-G

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Engineering Number: 61590621

3/24/2015 11:16:12 AN

Force/Stress Summary

		Bot Elev (ft): 80	.00		Heig	jht (fi	t): 20	.000							
												Shear				
	Pu		Len	Bra	acing	g %		F'y	Phic F	n Num	Num	phiRn	v phil	Rn U	se	
Max Compression Member	(kip)	Load Case	(ft)	X	Υ	Z	KL/R	(ksi)	(kip) Bolts	Holes	(kip)	(ki	p)	%	Controls
LEG PX - 3" DIA PIPE	-71.75	1.2D + 1.6W	6.43	100	100	100	67.7	50.0	97.	25 0	0	0.00	0.	.00	73	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.	00 0	0	0.00	0.	.00	0	
DIAG SAE - 2.5X2.5X0.1875	-2.98	1.2D + 1.6W 90	13.82	50	50	50	167.5	36.0	7.	26 1	1	7.95	10.	44	41	Member Z
										Shear	Bea					
Max Tension Member	Pu (kip)	Load Case	Fy (ks	F i) (k		Phit P (kip)	n Nur Bolt			ohiRnv (kip)	phil (ki		lse %	Con	trol	S
LEG PX - 3" DIA PIPE	64.44	0.9D + 1.6W 60	5	0	65	135.9) ()	0	0.00	C	0.00	47	Mem	ber	
HORIZ	0.00			0	0	0.0) ()	0	0.00	C	0.00	0			
DIAG SAE- 2.5X2.5X0.1875	2.96	1.2D + 1.6W 90	3	6	58	25.6) 1		1	7.95	e	5.20	47	Bolt I	Bea	
May Splice Forces	Pu			phiF	Rnt			Num								
Max Splice Forces	(kip)	Load Case		(ki	p)	9	ó	Bolts	Bolt	Type						
Top Tension	50.65	0.9D + 1.6W 60		0	.00		0	0								
Top Compression	58.91	1.2D + 1.6W		0	.00		0									
Bot Tension	64.36	0.9D + 1.6W 60		166	.24	3	9	4	7/8 /	1325						
Bot Compression	74.97	1.2D + 1.6W		0	.00		0									
Section: 6 6		Bot Elev (ft): 10	0.0		Heig	ht (fi): 13.	670							
Section: 6 6		Bot Elev (ht (fi					Shear				
Section: 6 6	Pu		Len	Bra	acinç	g %		F'y		n Num	Num				se	
Section: 6 6 Max Compression Member		Bot Elev (acing Y	g %	jht (ff	F'y	Phic F		Num Holes	phiRn	v phil	Rn ∪		Controls
	(kip)		Len	Bra	Υ	g % Z		F'y	Phic F (kip) Bolts		phiRn	v phil (ki	Rn ∪	%	Controls Member X
Max Compression Member	(kip) -56.24	Load Case	Len (ft)	Bra X	Υ	2 % Z	KL/R	F'y (ksi)	Phic F (kip) Bolts	Holes	phiRn (kip)	v phil (ki) 0.	Rn U p) '	% 95	
Max Compression Member LEG PX - 2-1/2" DIA PIPE	(kip) -56.24 -0.98	Load Case	Len (ft) 6.66 9.110	Bra X 100	Y 100	2 X Z 100 100	KL/R 86.5	F'y (ksi) 50.0	Phic F (kip 58. 7.	o) Bolts 59 0	Holes 0	phiRn (kip) 0.00	v phil (ki) 0. 10.	Rn U p) ' 00 44	% 95 13	Member X
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875	(kip) -56.24 -0.98	Load Case 1.2D + 1.6W 1.2D + 1.6W	Len (ft) 6.66 9.110	Bra X 100 100	Y 100 100	2 X 100 100	KL/R 86.5 183.4	F'y (ksi) 50.0 36.0	Phic F (kip 58. 7. 4.	59 0 32 1 70 1	0 1 1	9hiRn (kip) 0.00 7.95 7.95	v phil (ki) 0. 10.	Rn U p) ' 00 44	% 95 13	Member X Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875	-56.24 -0.98 -2.27	Load Case 1.2D + 1.6W 1.2D + 1.6W	Len (ft) 6.66 9.110 12.17	Bra X 100 100 50	Y 100 100 50	2 % Z 100 100 50	KL/R 86.5 183.4 185.4	F'y (ksi) 50.0 36.0 36.0	Phic F (kip 58. 7. 4.	59 0 32 1 70 1 Shear	0 1 1	9hiRn (kip) 0.00 7.95 7.95	v phil (ki) 0. 10. 10.	Rn U p) ' 00 44	% 95 13	Member X Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875	(kip) -56.24 -0.98	Load Case 1.2D + 1.6W 1.2D + 1.6W	Len (ft) 6.66 9.110 12.17	Bra X 100 100	100 100 50	2 X 100 100	KL/R 86.5 183.4 185.4	F'y (ksi) 50.0 36.0 36.0	Phic F (kip 58. 7. 4.	59 0 32 1 70 1	0 1 1	9hiRn (kip) 0.00 7.95 7.95	v phil (ki) 0. 10.	Rn U p) ' 00 44	95 13 48	Member X Member Z Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875	(kip) -56.24 -0.98 -2.27 Pu (kip)	Load Case 1.2D + 1.6W 1.2D + 1.6W 1.2D + 1.6W 90	Len (ft) 6.66 9.110 12.17	Bra X 100 100 50	100 100 50	2 % Z 100 100 50	KL/R 86.5 183.4 185.4 n Nun Bolt	F'y (ksi) 50.0 36.0 36.0	Phic F (kip 58. 7. 4.	59 0 32 1 70 1 Shear	0 1 1 Bea phir (ki	9hiRn (kip) 0.00 7.95 7.95	0. 10. 10.	Rn U p) ' 00 44 44	% 95 13 48	Member X Member Z Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Tension Member	(kip) -56.24 -0.98 -2.27 Pu (kip) 50.75	Load Case 1.2D + 1.6W 1.2D + 1.6W 1.2D + 1.6W 90 Load Case	Len (ft) 6.66 9.110 12.17 Fy (ksi	Bra X 100 100 50 Fii) (k	100 100 50 u si)	Z 100 100 50 Phit P (kip)	86.5 183.4 185.4 Num Bolt	F'y (ksi) 50.0 36.0 36.0	Phic F (kip 58. 7. 4. m	59 0 32 1 70 1 Shear ohiRnv (kip)	Bea phir (ki	phiRn (kip) 0.00 7.95 7.95 ar Rn U	v phil (ki) 0. 10. 10.	Rn U p) ' 00 44 44 Cont	95 13 48	Member X Member Z Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Tension Member LEG PX - 2-1/2" DIA PIPE	(kip) -56.24 -0.98 -2.27 Pu (kip) 50.75 0.90	Load Case 1.2D + 1.6W 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60	Len (ft) 6.66 9.110 12.17 Fy (ksi	Bra X 100 100 50 Fii) (k	Y 100 100 50 u si)	Z 100 100 50 Phit P (kip)	86.5 183.4 185.4 Num Bolt	F'y (ksi) 50.0 36.0 36.0	Phic F (kip) 58. 7. 4.	59 0 32 1 70 1 Shear phiRnv (kip)	Bear phile (ki)	phiRn (kip) 0.00 7.95 7.95 ar Rn Up)	v phil (ki) 0. 10. 10.	O0 44 44 Conf	95 13 48 trol:	Member X Member Z Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Tension Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875	(kip) -56.24 -0.98 -2.27 Pu (kip) 50.75 0.90 2.28	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 60 1.2D + 1.6W	Len (ft) 6.66 9.110 12.17 Fy (ksi	Bra X 1000 1000 500 Final (kg of the control of the	Y 1000 1000 500 uusi) 65 58	Z 100 100 50 Phit P (kip) 101.29 31.74 19.50	86.5 183.4 185.4 Num Bolt 5 (1) 1	F'y (ksi) 50.0 36.0 36.0 Num	Phic F (kip 58. 7. 4. m les 0	59 0 332 1 70 1 Shear phiRnv (kip) 0.00 7.95	Bear phile (ki)	9hiRn (kip) 0.00 7.95 7.95 ar Rn Up)	v phil (ki) 0. 10. 10. 50 14	Conf Meml Bolt E	95 13 48 trol:	Member X Member Z Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Tension Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875	(kip) -56.24 -0.98 -2.27 Pu (kip) 50.75 0.90 2.28	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 60	Len (ft) 6.66 9.110 12.17 Fy (ksi	Bra X 1000 1000 500 Final (kg of the control of the	Y 1000 1000 500 uusi) 65 58	Z 100 100 50 Phit P (kip) 101.25 31.74 19.50	86.5 183.4 185.4 Num Bolt 5 (1) 1	F'y (ksi) 50.0 36.0 36.0 Nus Ho	Phic F (kip 58. 7. 4. m les 0	59 0 32 1 70 1 Shear phiRnv (kip) 0.00 7.95	Bear phile (ki)	9hiRn (kip) 0.00 7.95 7.95 ar Rn Up)	v phil (ki) 0. 10. 10. 50 14	Conf Meml Bolt E	95 13 48 trol:	Member X Member Z Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Tension Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875	(kip) -56.24 -0.98 -2.27 Pu (kip) 50.75 0.90 2.28	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 60 1.2D + 1.6W	Len (ft) 6.66 9.110 12.17 Fy (ksi	Bra X 1000 1000 500 Frid (kip file)	Y 1000 1000 500 uusi) 65 58	2 % Z 100 100 50 Phit P (kip) 101.29 31.74 19.50	86.5 183.4 185.4 Num Bolt 5 (1) 1	F'y (ksi) 50.0 36.0 36.0 Num	Phic F (kip 58. 7. 4. m les 0	59 0 332 1 70 1 Shear phiRnv (kip) 0.00 7.95	Bear phile (ki)	9hiRn (kip) 0.00 7.95 7.95 ar Rn Up)	v phil (ki) 0. 10. 10. 50 14	Conf Meml Bolt E	95 13 48 trol:	Member X Member Z Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Tension Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Splice Forces Top Tension Top Compression	(kip) -56.24 -0.98 -2.27 Pu (kip) 50.75 0.90 2.28 Pu (kip) 42.18	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W 60 1.2D + 1.6W	Len (ft) 6.66 9.110 12.17 Fy (ksi	Bra X 1000 1000 500 Fii) (k 0 0 6 6 6 Fiii) (k ii) (k iii) (k	Y 100 100 50 uusi) 65 58 58	2 % Z 100 100 50 Phit P (kip) 101.29 31.74 19.50	86.5 183.4 185.4 Nun Bolt 5 0 1 1	F'y (ksi) 50.0 36.0 36.0 Num Bolts	Phic F (kip 58. 7. 4. m les 0	59 0 332 1 70 1 Shear phiRnv (kip) 0.00 7.95	Bear phile (ki)	9hiRn (kip) 0.00 7.95 7.95 ar Rn Up)	v phil (ki) 0. 10. 10. 50 14	Conf Meml Bolt E	95 13 48 trol:	Member X Member Z Member Z
Max Compression Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Tension Member LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 3X3X0.1875 DIAG SAE - 2X2X0.1875 Max Splice Forces Top Tension	(kip) -56.24 -0.98 -2.27 Pu (kip) 50.75 0.90 2.28 Pu (kip) 42.18 49.09	Load Case 1.2D + 1.6W 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60 1.2D + 1.6W Load Case 0.9D + 1.6W 60	Len (ft) 6.66 9.110 12.17 Fy (ksi 5 3	Bra X 1000 1000 500 Fii) (k 0 0 6 6 6 Fiii) (k ii) (k iii) (k	Y 1000 1000 500 1000 500 1000 1000 1000	2 % Z 100 100 50 Phit P (kip) 101.29 31.74 19.50	86.5 183.4 185.4 Nun Bolt 1 1 1 1 1 1 1 1	F'y (ksi) 50.0 36.0 36.0 Num Bolts	Phic F (kip 58. 7. 4. m les 0	59 0 32 1 70 1 Shear phiRnv (kip) 0.00 7.95 7.95	Bear phile (ki)	9hiRn (kip) 0.00 7.95 7.95 ar Rn Up)	v phil (ki) 0. 10. 10. 50 14	Conf Meml Bolt E	95 13 48 trol:	Member X Member Z Member Z

Customer: T- Mobile

Code:

ANSI/TIA-222-G

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Site Name:

Levesque CT, CT

Engineering Number: 61590621

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Force/Stress Summary

Section: 7 6		Bot Elev (ft): 113	3.6	Hei	ght (f	t): 6.3	330						
											Shear			
	Pu		Len	Braci	ng %		F'y	Phic Pn	Num	Num	phiRny	/ phiR	n Use	
Max Compression Member	(kip)	Load Case	(ft)	X \	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip	%	Controls
LEG PX - 2-1/2" DIA PIPE		1.2D + 1.6W			00 100		50.0	65.27		0	0.00	0.0		Member X
HORIZ	0.00		0.000	0	0 0	0.0	0.0	0.00	0	0	0.00	0.0	0 0	
DIAG SAE - 2X2X0.1875	-2.49	1.2D + 1.6W	10.61	50	50 50	161.7	36.0	6.18	1	1	7.95	10.4	4 40	Member Z
								Sh	ear	Bea	ar			
Max Tension Member	Pu (kip)	Load Case	Fy (ksi	Fu) (ksi)		n Nur Bol			iRnv (ip)	phiF (kij		se %	Contro	ls
LEG PX - 2-1/2" DIA PIPE		1.2D + 1.6W 60					0	0	0.00		.00		<i>V</i> lember	
HORIZ	0.00		() (0.0	0 (0	0	0.00	0	.00	0		
DIAG SAE - 2X2X0.1875	2.20	1.2D + 1.6W 60	36	5 58	19.5	0	1	1	7.95	6	.20	35 E	Bolt Bea	ar
May Calina Farana	Pu			phiRnt	u	se	Num							
Max Splice Forces	(kip)	Load Case		(kip)		%	Bolts	Bolt T	ype					
Top Tension	38.29	0.9D + 1.6W 60		0.00		0	0							
Top Compression	44.54	1.2D + 1.6W		0.00		0								
Bot Tension	42.18	0.9D + 1.6W 60		120.40	3	35	4	3/4 A3	25					
Bot Compression	49.09	1.2D + 1.6W		0.00		0								
Section: 8 7		Bot Elev (ft): 120	0.0	Hei	ght (f	t): 20	.000						
											Shear			
	Pu		Len	Braci	ng %		F'y	Phic Pn	Num	Num	phiRnv	/ phiRr	n Use	
Max Compression Member	(kip)	Load Case	(ft)	X Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG PX - 2-1/2" DIA PIPE	-42.53	1.2D + 1.6W	4.82	100 10	00 100	62.6	50.0	76.02	0	0	0.00	0.0	0 55	Member X
HORIZ SAE - 2X2X0.125	-0.11	1.2D + 1.0Di +	6.420	100 10	100	400 0								N 4 7
DIAG SAE - 1.5X1.5X0.125			0.720	100 1	00 100	193.6	36.0	2.89	1	1	7.95	6.9	6 3	Member Z
	-2.06	1.2D + 1.6W 90				193.6 191.7				1	7.95 7.95	6.9		Member Z
	-2.06	1.2D + 1.6W 90						2.21	1	1	7.95			
		1.2D + 1.6W 90	9.459	50	50 50	191.7	36.0	2.21 Sh	1 lear	1 Be a	7.95 ar	6.9		
Max Tension Member	-2.06 Pu (kip)	1.2D + 1.6W 90 Load Case	9.459 Fy		50 50 Phit F	191.7 n Nur	36.0 n Nu	2.21 Sh m ph	1	1	7.95 ar Rn Us	6.9		Member Z
	Pu (kip)		9.459 Fy	50 (Fu (ksi)	50 50 Phit F (kip)	191.7 Pn Nur Bolt	36.0 n Nu	2.21 Sh m ph	1 iear iRnv	1 Bea phiF (kip	7.95 ar Rn Us	6.9 se %	6 93	Member Z
LEG PX - 2-1/2" DIA PIPE	Pu (kip) 37.95	Load Case	9.459 Fy (ksi	50 (Fu (ksi)	Phit F (kip)	191.7 Pn Nur Boli	36.0 m Nu ts Ho	2.21 Sh m ph les (1 lear iRnv (ip)	Bea phif (kip	7.95 ar Rn Us o)	6.9 se %	6 93 Contro	Member Z
LEG PX - 2-1/2" DIA PIPE	Pu (kip) 37.95 0.05	Load Case 1.2D + 1.6W 60	9.459 Fy (ksi)	Fu (ksi)	Phit F (kip) 5 101.2 3 13.1	191.7 Pn Nur Boli 25 (36.0 m Nu ts Ho	2.21 Sh m ph les (H	1 iear iRnv (ip)	Bea phiF (kip 0	7.95 ar Rn U: o) 9	6.96 % 0 37 M 1 E	6 93 Contro Member	Member Z
HORIZ SAE - 2X2X0.125 DIAG SAE - 1.5X1.5X0.125	Pu (kip) 37.95 0.05	Load Case 1.2D + 1.6W 60 1.2D + 1.6W 90 1.2D + 1.6W 90	9.459 Fy (ksi) 50 36	Fu (ksi)	Phit F (kip) 5 101.2 3 13.1 6 9.2	191.7 Pn Nur Boli 55 (1	36.0 m Nu ts Ho 0 1 1	2.21 Sh m ph les (#	1 iear iRnv (ip) 0.00 7.95	Bea phiF (kip 0	7.95 ar Rn Us o) 5	6.96 % 0 37 M 1 E	6 93 Contro Member	Member Z
LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 2X2X0.125	Pu (kip) 37.95 0.05 2.22	Load Case 1.2D + 1.6W 60 1.2D + 1.6W 90	9.459 Fy (ksi) 50 36	Fu (ksi) (65 58 58	Phit F (kip) 5 101.2 3 13.1 6 9.2	191.7 Pn Nur Boli 25 (36.0 m Nu ts Ho	2.21 Sh m ph les (#	1 near iRnv (ip) 0.00 7.95 7.95	Bea phiF (kip 0	7.95 ar Rn Us o) 5	6.96 % 0 37 M 1 E	6 93 Contro Member	Member Z
LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 2X2X0.125 DIAG SAE - 1.5X1.5X0.125	Pu (kip) 37.95 0.05 2.22	Load Case 1.2D + 1.6W 60 1.2D + 1.6W 90 1.2D + 1.6W 90	9.459 Fy (ksi) 50 36	Fu (ksi) (65 58 58 phiRnt	Phit F (kip) 5 101.2 3 13.1 6 9.2	191.7 Pn Nur Boli 55 (1	36.0 m Nu ts Ho 0 1 1	2.21 Shm ph les (* 0 1	1 near iRnv (ip) 0.00 7.95 7.95	Bea phiF (kip 0	7.95 ar Rn Us o) 5	6.96 % 0 37 M 1 E	6 93 Contro Member	Member Z
LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 2X2X0.125 DIAG SAE - 1.5X1.5X0.125 Max Splice Forces	Pu (kip) 37.95 0.05 2.22 Pu (kip)	Load Case 1.2D + 1.6W 60 1.2D + 1.6W 90 1.2D + 1.6W 90 Load Case	9.459 Fy (ksi) 50 36	Fu (ksi) 656 586 58	Phit F (kip) 5 101.2 3 13.1 6 9.2	191.7 Pn Nur Boli 15 (1 10	36.0 m Nuts Ho 0 1 1 Num Bolts	2.21 Shm ph les (* 0 1	1 near iRnv (ip) 0.00 7.95 7.95	Bea phiF (kip 0	7.95 ar Rn Us o) 5	6.96 % 0 37 M 1 E	6 93 Contro Member	Member Z
LEG PX - 2-1/2" DIA PIPE HORIZ SAE - 2X2X0.125 DIAG SAE - 1.5X1.5X0.125 Max Splice Forces Top Tension	Pu (kip) 37.95 0.05 2.22 Pu (kip) 23.44	Load Case 1.2D + 1.6W 60 1.2D + 1.6W 90 1.2D + 1.6W 90 Load Case 0.9D + 1.6W 60	9.459 Fy (ksi) 50 36	Fu (ksi) 65 58 58 phiRnt (kip) 0.00	Phit F (kip) 5 101.2 3 13.1 6 9.2	191.7 Pn Nurr Bolt 155 (1) 100	36.0 m Nuts Ho 0 1 1 Num Bolts	2.21 Shm ph les (* 0 1	1 near iRnv (ip) 0.00 7.95 7.95	Bea phiF (kip 0	7.95 ar Rn Us o) 5	6.96 % 0 37 M 1 E	6 93 Contro Member	Member Z

Customer: T- Mobile

Site Name: Levesque CT, CT

Code:

ANSI/TIA-222-G

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3/24/2015 11:16:12 AM

Force/Stress Summary

Engineering Number: 61590621

Section: 9 8		Bot Elev (ft): 140	0.0	Hei	ight (1	ft): 20	0.000						
											Shear			
	Pu		Len	Braci	ng %		F'y	Phic F	n Num	Num	phiRn	v phiF	n Use)
Max Compression Member	(kip)	Load Case	(ft)	Χ ,	Y Z	KL/R	(ksi)	(kip) Bolts	Holes	(kip)	(kip) %	Controls
LEG PST - 2" DIA PIPE	-25.44	1.2D + 1.6W	3.85	100 1	00 100	58.7	50.	0 37.4	43 0	0	0.00	0.0	00 67	Member X
HORIZ	0.00		0.000	0	0 0	0.0	0.0	0.0	0 00	0	0.00	0.0	00 0)
DIAG SAE-1.5X1.5X0.125	-2.57	1.2D + 1.6W 90	7.486	50	50 50	151.7	36.	0 3.4	53 1	1	7.95	6.	96 72	2 Member Z
	_		_	_	DI ''				Shear	Bea				
Max Tension Member	Pu (kip)	Load Case	Fy (ksi	Fu) (ksi)		Pn Nu) Bo			hiRnv (kip)	phif (ki		lse %	Contro	ols
LEG PST - 2" DIA PIPE		0.9D + 1.6W 60					0	0	0.00		0.00	48	Membe	r
HORIZ	0.00) (0.0	00	0	0	0.00	C	0.00	0		
DIAG SAE - 1.5X1.5X0.125	2.57	1.2D + 1.6W 90	36	5 58	9.:	20	1	1	7.95	4	1.13	62	Bolt Be	ar
May Calina Favora	Pu			phiRnt	: (Js e	Num							
Max Splice Forces	(kip)	Load Case		(kip)		%	Bolts	Bolt	Type					
Top Tension	3.96	0.9D + 1.6W 60		0.00)	0	0							
Top Compression	7.07	1.2D + 1.6W		0.00)	0								
Bot Tension	23.44	0.9D + 1.6W 60		81.36	5	29	4	5/8 A	325					
Bot Compression	28.20	1.2D + 1.6W		0.00)	0								
Section: 10 9		Bot Elev (ft): 160	0.0	Hei	ght (f	ft): 20	0.000						
											Shear			
	Pu		Len	Braci	ng %		F'y	Phic P	n Num	Num	phiRn	v phiF	n Use	•
Max Compression Member	(kip)	Load Case	(ft)	X Y	YZ	KL/R	(ksi)	(kip) Bolts	Holes	(kip)	(kip) %	Controls
LEG PST - 2" DIA PIPE	-7.03	1.2D + 1.6W	0.38	100 1	00 100	5.7	50.	0 48.0	04 0	0	0.00	0.0	00 14	Member X
HORIZ SAE - 2X2X0.125	-0.15	1.2D + 1.6W 60	6.420	100 1	00 100	193.6	36.	0 2.8	39 1	1	7.95	6.9	96 5	Member Z
DIAG SAE- 1.5X1.5X0.125	-0.96	1.2D + 1.6W	7.486	50	50 50	151.7	36.0	0 3.5	53 1	1	7.95	6.9	96 27	Member Z
									21					
	Pu		Fy	Fu	Dhit I	Pn Nu	m Ni		Shear shiRnv	Bea phil		lse		
Max Tension Member	(kip)	Load Case	-) (ksi)					(kip)	(ki		%	Contro	ols
LEG PST - 2" DIA PIPE	4.00	0.9D + 1.6W 60	50	0 65	5 48.	15	0	0	0.00	0	0.00	8	Membe	r
HORIZ SAE - 2X2X0.125	0.21	1.2D + 1.6W	36	5 58	8 13.	11	1	1	7.95	4	.13	4	Bolt Be	ar
DIAG SAE- 1.5X1.5X0.125	0.97	1.2D + 1.6W 90	36	5 58	9.5	20	1	1	7.95	4	.13	23	Bolt Be	ar
	Pu			phiRnt	1	Jse	Num							
Max Splice Forces	(kip)	Load Case		(kip)		%	Bolts	Bolt	Туре					
Top Tension	0.00			0.00)	0	0							
Top Compression	0.33	1.2D + 1.0Di +		0.00)	0								
Bot Tension	3.96	0.9D + 1.6W 60		81.36	5	5	4	5/8 A	325					
Bot Compression	7.07	1.2D + 1.6W		0.00)	0								
201 00 m p 1 0 0 0 10 11														

Customer: T- Mobile

. 215515

Site Name: Levesque CT, CT

Code:

ANSI/TIA-222-G

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Engineering Number: 61590621

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Support Forces Summary

Load Case	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
(0.9 - 0.2Sds) * DL + E 60 deg M1	1b	-0.21	-1.13	-0.12	
,	1a	-0.49	7.72	0.24	
	1	-0.04	7.72	-0.55	
(0.9 - 0.2Sds) * DL + E 60 deg M2	1b	-0.07	0.35	-0.04	
	1a	-0.42	6.98	0.22	
	1	-0.02	6.98	-0.47	
(0.9 - 0.2Sds) * DL + E 90 deg M1	1b	-0.16	-0.45	-0.07	
	1a	-0.66	10.00	0.35	
	1	-0.05	4.77	-0.29	
(0.9 - 0.2Sds) * DL + E 90 deg M2	1b	-0.03	0.94	-0.01	
	1a	-0.53	8.60	0.29	
	1	-0.02	4.77	-0.29	
(0.9 - 0.2Sds) * DL + E Normal M1	1b	0.04	1.75	-0.02	
The state of the s	1a	-0.04	1.75	-0.02	
	1	0.00	10.80	-0.82	
(0.9 - 0.2Sds) * DL + E Normal M2	1b	0.10	2.56	0.03	
	1a	-0.10	2.56	0.03	
	1	0.00	9.19	-0.65	
(1.2 + 0.2Sds) * DL + E 60 deg M1	1b	-0.10	0.97	-0.06	
,	1a	-0.60	9.83	0.30	
	1	-0.04	9.83	-0.67	
(1.2 + 0.2Sds) * DL + E 60 deg M2	1b	0.04	2.45	0.02	
, , , , , , , , , , , , , , , , , , , ,	1a	-0.53	9.09	0.28	
	1	-0.02	9.09	-0.60	
(1.2 + 0.2Sds) * DL + E 90 deg M1	1b	-0.06	1.64	-0.01	
	1a	-0.77	12.11	0.42	
	1	-0.05	6.87	-0.41	
(1.2 + 0.2Sds) * DL + E 90 deg M2	1b	0.07	3.04	0.06	
(,	1a	-0.64	10.71	0.35	
	1	-0.02	6.87	-0.41	
(1.2 + 0.2Sds) * DL + E Normal M1	1b	0.14	3.85	0.04	
`	1a	-0.14	3.85	0.04	
	1	0.00	12.92	-0.95	
(1.2 + 0.2Sds) * DL + E Normal M2	1b	0.21	4.66	0.10	
,	1a	-0.21	4.66	0.10	
	1	0.00	11.30	-0.78	
0.9D + 1.6W 60 deg	1b	-10.84	-115.20	-6.26	
•	1a	-6.60	65.01	1.81	
	1	-1.73	65.65	-6.62	
0.9D + 1.6W 90 deg	1b	-10.06	-100.82	-4.68	
	1a	-10.53	111.13	4.89	
	1	-2.02	5.15	-0.21	
0.9D + 1.6W Normal	1b	-4.89	-59.79	-4.97	
	1a	4.89	-59.79	-4.97	

Site Number: 275375 Code: ANSI/TIA-222-G © 2007 - 2015 by ATC IP LLC. All rights reserved Site Name: Levesque CT, CT Engineering Number: 61590621 3/24/2015 11:16:12 AI Customer: T- Mobile 1 0.00 135.04 -14.12 1.0D + 1.0W Service 60 deg 1b -2.51 -24.43 -1.45 1a -1.9020.72 0.59 -0.4420.88 -1.94 1.0D + 1.0W Service 90 deg 1b -20.82 -1.04 -2.311a -2.8832.27 1.36 -0.52 1 5.72 -0.32 1.0D + 1.0W Service Normal -0.99 1b -10.54 -1.13 0.99 -10.541a -1.131 0.00 38.26 -3.82 1.2D + 1.0Di + 1.0Wi 60 deg 1b -3.99 -25.53 -2.30-2.90 46.12 0.92 1a -0.65 46.37 -2.97 1.2D + 1.0Di + 1.0Wi 90 deg 1b -3.62 -19.32-1.66 -4.4063.96 2.10 1a -0.7622.32 -0.44 1.2D + 1.0Di + 1.0Wi Normal 1b -1.54 -2.36 -1.66 1a 1.54 -2.36-1.66 0.00 71.68 -5.66 1.2D + 1.6W 60 deg 1b -10.76 -113.62 -6.21 1a -6.68 66.79 1.86 -1.7367.43 -6.721.2D + 1.6W 90 deg 1b -9.98 -99.22 -4.63 1a -10.61 112.96 4.93 -2.02 6.87 -0.311.2D + 1.6W Normal 1b -4.80 -58.15 -4.92 4.80 -58.15 -4.92 1a 0.00 136.90 -14.22

Moment:

Total Down:

Total Shear:

Max Uplift:

Max Down:

Max Shear:

115.20 (kip)

136.90 (kip)

14.22 (kip)

2,340.02 (kip-ft)

20.61 (kip)

24.05 (kip)

1.2D + 1.6W Normal

Site Name: Levesque CT, CT

Customer: T- Mobile

Code:

ANSI/TIA-222-G

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3/24/2015 11:16:12 AF

Deflections and Rotations

Engineering Number: 61590621

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	
50 mph 60 degree with 0.75 in Radial Ice	40.38	0.0320	0.0457	0.1505	
	59.63	0.0632	0.0694	0.1736	
	60.38	0.0655	0.0706	0.1757	
	100.38	0.1761	0.1259	0.2735	
	160.37	0.4736	0.1555	0.4731	
	175.77	0.5681	0.1708	0.3572	
	180.00	0.5938	0.1732	0.3268	
50 mph 90 degree with 0.75 in Radial Ice	40.38	0.0318	0.0252	0.1399	
	59.63	0.0632	0.0375	0.1556	
	60.38	0.0653	0.0380	0.1570	
	100.38	0.1763	0.0613	0.2457	
	160.37	0.4746	0.0502	0.4605	
	175.77	0.5690	0.0499	0.3610	
	180.00	0.5941	0.0498	0.2123	
50 mph Normal with 0.75 in Radial Ice	40.38	0.0321	0.0386	0.1500	
	59.63	0.0645	0.0598	0.1992	
	60.38	0.0668	0.0609	0.1970	
	100.38	0.1816	0.1113	0.3175	
	160.37	0.4889	0.1215	0.4797	
	175.77	0.5872	0.1210	0.3563	
	180.00	0.6155	0.1212	0.5494	
95 mph 60 deg with No Ice (Reduced DL)	40.38	0.0782	0.1358	0.3518	
	59.63	0.1567	0.2074	0.4150	
	60.38	0.1623	0.2108	0.4130	
	100.38	0.4414	0.3822	0.6663	
	160.37	1.2120	0.6118	1.2652	
	175.77	1.4592	0.7201	0.9335	
	180.00	1.5261	0.7366	0.8556	
95 mph 60 degree with No Ice	40.38	0.0783	0.1358	0.3522	
	59.63	0.1569	0.2075	0.4156	
	60.38	0.1625	0.2109	0.4136	
	100.38	0.4420	0.3824	0.6677	
	160.37	1.2141	0.6125	1.2691	
	175.77	1.4618	0.7210	0.9355	
	180.00	1.5289	0.7375	0.8575	
95 mph 90 deg with No Ice (Reduced DL)	40.38	0.0792	0.0646	0.3434	
	59.63	0.1589	0.0964	0.3827	
	60.38	0.1640	0.0978	0.3786	
	100.38	0.4472	0.1508	0.6203	
	160.37	1.2275	0.1234	1.2451	
	175.77	1.4768	0.1232	0.9510	
	180.00	1.5428	0.1230	0.5666	
5 mph 90 degree with No Ice	40.38	0.0793	0.0646	0.3437	
	59.63	0.1591	0.0964	0.3831	
	60.38	0.1642	0.0978	0.3790	
	100.38	0.4478	0.1508	0.6212	
	160.37	1.2297	0.1233	1.2481	
	175.77	1.4795	0.1230	0.9530	
	180.00	1.5456	0.1229	0.5687	
5 mph Normal to Face with No Ice (Reduced DL)	40.38	0.0848	0.1006	0.4127	
	59.63	0.1691	0.1561	0.5375	

Site Number: 275375	Code:	ANSI/TIA-222-G	© 2007 - 2015 by ATC IP LLC. All rights reserve
Site Name: Levesque CT, CT	Engineering Number:	61590621	3/24/2015 11:16:12 A
Customer: T- Mobile			
addition 1 mobile	CO 20	0.4704	
	60.38	0.1764 0.1588	0.5400
	100.38	0.4769 0.2804	0.8370
	160.37 175.77	1.3025 0.3192	1.3573
		1.5690 0.3199	0.9704
OF much Name of the Francisco Mr. No. Lond	180.00	1.6456 0.3211	1.4640
95 mph Normal to Face with No Ice	40.38	0.0849 0.1007	0.4131
	59.63 60.38	0.1693 0.1562	0.5380
		0.1766 0.1588	0.5405
	100.38 160.37	0.4776 0.2805	0.8381
	175.77	1.3048 0.3194	1.3607
	180.00	1.5718 0.3201	0.9726
Soiomio (Doduced DI) 60 de avec Mid	40.38	1.6486 0.3213	1.4663
Seismic (Reduced DL) 60 degree M1		0.0037 0.0005	0.0160
	59.63	0.0077 0.0007	0.0211
	60.38	0.0080 0.0007	0.0209
	100.38 160.37	0.0230 0.0008	0.0376
	175.77	0.0692 0.0001	0.0865
	180.00	0.0856 0.0001	0.0607
Seismic (Reduced DL) 60 degree M2	40.38	0.0901 0.0001	0.0664
Seismic (Reduced DL) 60 degree W2	59.63	0.0027 0.0003	0.0108
	60.38	0.0058 0.0004 0.0060 0.0004	0.0147
			0.0146
	100.38 160.37	0.0178 0.0004	0.0285
	175.77	0.0580 0.0000	0.0824
	180.00	0.0731 0.0001	0.0556
Seismic (Reduced DL) 90 degree M1	40.38	0.0772 0.0001	0.0616
Seismic (Reduced DL) 90 degree Wil	59.63	0.0038 0.0003	0.0156
	60.38	0.0079 0.0004 0.0082 0.0004	0.0207
	100.38		0.0206
	160.37		0.0373
	175.77	0.0710 0.0000 0.0877 0.0001	0.0856 0.0623
	180.00		
Seismic (Reduced DL) 90 degree M2	40.38	0.0924 0.0001 0.0028 0.0002	0.0672 0.0104
Seismic (neduced DL) 30 degree M2	59.63	0.0028 0.0002	0.0142
	60.38	0.0060 0.0002	0.0142
	100.38	0.0178 0.0002	0.0278
	160.37	0.0581 0.0000	0.0795
	175.77	0.0731 0.0000	0.0557
	180.00	0.0772 0.0000	0.0607
Seismic (Reduced DL) Normal M1	40.38	0.0039 0.0005	0.0164
oo lomio (rio dado d DE) rio rimar in r	59.63	0.0080 0.0007	0.0209
	60.38	0.0083 0.0007	0.0210
	100.38	0.0236 0.0006	0.0370
	160.37	0.0710 0.0000	0.0874
	175.77	0.0877 0.0001	0.0622
	180.00	0.0924 0.0001	0.0674
Seismic (Reduced DL) Normal M2	40.38	0.0028 0.0003	0.0109
	59.63	0.0058 0.0004	0.0140
	60.38	0.0060 0.0004	0.0141
	100.38	0.0179 0.0004	0.0270
	160.37	0.0581 0.0000	0.0813
	175.77	0.0731 0.0000	0.0555
	180.00	0.0772 0.0000	0.0610
Seismic 60 degree M1	40.38	0.0037 0.0005	0.0161
	59.63	0.0077 0.0007	0.0213
	60.38	0.0080 0.0007	0.0211

Site Name	Site Number: 275375	Code:	ANSI/TIA-222-G	© 2007 - 2015 by ATC IPLLC. All rights reserved
Customars: T-Mobile	Site Name: Levesque CT, CT	Engineering Number:	61590621	3/24/2015 11:16:12 AN
100.38				5.2.7.2.7.3.7.7.7.
160.37		400.20	0.0004	0.000
15.77				
Seismic 80 degree M2 40.38 50.0027 40.003 40.003 40.0058 40.0060 40.004 40.0060 40.004 40.0147 40.0060 40.004 40.0178 40.0060 40.004 40.0178 40.0060 40.0074 40.0073 40.0073 40.001 40.003 40.0038				
Selsmic 80 degree M2				
\$9.83 0.0084 0.0148 0.0148 0.008 0.004 0.0147 0.003 0.0178 0.0080 0.004 0.0289 0.000 0.0830 0.0073 0.0081 0.0057 0.0091 0.0557 0.0091 0.0557 0.0091 0.0557 0.0091 0.0557 0.0091 0.0557 0.0091 0.0059 0.0091 0.0557 0.0091 0.0091 0.0557 0.0091 0.0091 0.0557 0.0091	Table 1 av. Day			
60.38 0.0860 0.0904 0.0147 160.37	Seismic 60 degree M2			
100.38				
160.37 0.0852 0.0000 0.0830 175.77 175.77 0.0732 0.0001 0.0857 175.77 0.0732 0.0001 0.0857 180.00 0.0734 0.0001 0.0857 180.00 0.0734 0.0001 0.0858 180.00 0.0004 0.0209 0.0004 0.0209 180.00 0.0004 0.0209 180.00 0.0004 0.0207 180.00 0.0007 0.0007 0.0007 175.77 0.0711 0.0000 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0825 0.0001 0.0875 0.0001 0				
175.77				
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Seismic 90 degree M1				
59.83	1215-1-110210-11-1051			The second secon
60.38	Seismic 90 degree M1			
100.38				
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Seismic 90 degree M2 40.38 0.0028 0.0001 0.0675 40.38 0.0002 0.0104 55.53 0.0008 0.0002 0.0143 100.38 0.0000 0.0002 0.0143 100.38 0.0179 0.0002 0.0282 160.37 0.0582 0.0000 0.0800 175.77 0.0732 0.0000 0.0880 180.00 0.0774 0.0000 0.0510 180.00 0.0774 0.0000 0.0558 180.00 0.00774 0.0000 0.05610 Seismic Normal M1 40.38 0.0039 0.0005 0.0165 60.38 0.0030 0.0007 0.0207 100.38 0.0033 0.0007 0.0209 100.38 0.0033 0.0007 0.0209 100.38 0.0033 0.0007 0.0209 160.37 0.0712 0.0000 0.0874 175.77 0.0879 0.0001 0.0623 Seismic Normal M2 40.38 0.023 0.0000 0.0015 Seismic Normal M2 40.38 0.0033 0.0001 0.0675 Seismic Normal M2 40.38 0.0038 0.0003 0.0109 58.63 0.0038 0.0004 0.0014 100.38 0.0179 0.0004 0.0138 100.38 0.0179 0.0004 0.0138 160.37 0.0583 0.0000 0.0813 175.77 0.0583 0.0000 0.0813 175.77 0.0583 0.0000 0.0813 175.77 0.0733 0.0000 0.0557 180.00 0.0774 0.0000 0.0610 Serviceability - 60 mph Wind 60 degree 40.38 0.0166 0.0272 0.0898 50.38 0.0166 0.0272 0.0898 50.38 0.0166 0.0272 0.0898 50.38 0.0166 0.0272 0.0898 50.38 0.0166 0.0272 0.0898 50.38 0.0392 0.0414 0.0268 Serviceability - 60 mph Wind 90 degree 40.38 0.0169 0.0075 0.0010 0.1682 50.38 0.0166 0.0272 0.0898 50.38 0.0166 0.0272 0.0898 50.38 0.0392 0.0165 0.0272 50.898 50.38 0.0392 0.0146 0.0810 0.2330 50.0000 0.0813 175.77 0.0564 0.0272 0.0898 50.38 0.0392 0.0165 0.0272 50.898 50.38 0.0398 0.0237 0.0275 50.3165 50.375 0.0364 0.0810 0.0393 60.38 0.01103 0.0700 0.01692 50.375 0.0366 0.0244 0.3116 50.000 0.3860 0.0272 0.0938 60.38 0.0398 0.0237 0.0275 50.0001 0.0610				
Seismic 90 degree M2				
59.63				
60.38	Seismic 90 degree M2			
100.38				
160.37				
175.77			0.0179 0.0002	0.0282
180.00 0.0774 0.0000 0.0610				0.0800
Seismic Normal M1 40.38 0.0039 0.0005 0.0165 59.63 0.0080 0.0007 0.0207 60.38 0.0083 0.0007 0.0209 100.38 0.0237 0.0006 0.0368 160.37 0.0712 0.0000 0.0874 175.77 0.0879 0.0001 0.0623 180.00 0.0926 0.0001 0.0675 Seismic Normal M2 40.38 0.0028 0.0003 0.0109 59.63 0.0059 0.0004 0.0138 60.38 0.0051 0.0004 0.0141 100.38 0.0179 0.0004 0.0281 160.37 0.0533 0.0000 0.0813 175.77 0.0733 0.0000 0.0813 175.77 0.0733 0.0000 0.0813 Serviceability - 60 mph Wind 60 degree 40.38 0.0196 0.0272 0.0898 59.63 0.0364 0.0414 0.1053 60.38 0.0406 0.0420 0.1045 160.37 0.3644 0.0810 0.2330 <td></td> <td></td> <td>0.0732 0.0000</td> <td>0.0558</td>			0.0732 0.0000	0.0558
59.63 0.0080 0.0007 0.0207 60.38 0.0083 0.0007 0.0209 60.38 0.0083 0.0007 0.0209 60.38 0.0083 0.0007 0.0209 60.38 0.0023 0.0006 0.0368 60.37 0.0712 0.0000 0.0874 60.00 0.0926 0.0001 0.0623 60.00 0.0926 0.0001 0.0675 60.00 0.0926 0.0001 0.0675 60.038 0.0069 0.0004 0.0108 60.38 0.0061 0.0004 0.0118 60.38 0.0061 0.0004 0.0141 60.38 0.0061 0.0004 0.0141 60.38 0.0061 0.0004 0.0288 60.38 0.0061 0.0004 0.0288 60.38 0.0061 0.0000 0.0617 60.38 0.0060 0.0272 0.0898 60.38 0.0406 0.022 0.0898 60.38 0.0406 0.0420 0.1045 60.38 0.0103 0.0700 0.1682 60.38 0.0406 0.0420 0.1045 60.38 0.0406 0.0420 0.1045 60.38 0.0406 0.0420 0.1045 60.38 0.0406 0.0810 0.2315 60.38 0.0406 0.0810 0.2315 60.38 0.0406 0.0810 0.2315 60.38 0.0411 0.0341 0.0341 60.38 0.0411 0.0234 0.0822 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.38 0.0411 0.0234 0.0938 60.39 0.0237 0.0237 0.0237 60.39 0.0237 0.0237 0.0237 60.39 0.0237 0.0237 0.0237 60.39 0.0237 0.0237 0.0237 60.39 0.0237 0.0237 0.0237 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237 0.0238 60.39 0.0237				
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Seismic Normal M2 40.38 0.0028 0.0003 0.0109 59.63 0.0059 0.0004 0.0138 60.38 0.0061 0.0004 0.0141 100.38 0.0179 0.0004 0.0268 160.37 0.0583 0.0000 0.0813 175.77 0.0733 0.0000 0.0567 180.00 0.0774 0.0000 0.0610 Serviceability - 60 mph Wind 60 degree 40.38 0.0196 0.0272 0.0898 60.38 0.0406 0.0420 0.1045 100.38 0.1103 0.0700 0.1682 160.37 0.3027 0.0756 0.3175 175.77 0.3644 0.0810 0.2330 180.00 0.3810 0.0819 0.2125 Serviceability - 60 mph Wind 90 degree 40.38 0.0199 0.0155 0.0852 59.63 0.0398 0.0230 0.0949 60.38 0.0411 0.0234 0.0938 100.38 0.1118 0.0351 0.1543 100.39 0.0244 0.03116 </td <td></td> <td></td> <td></td> <td>0.0623</td>				0.0623
Serviceability - 60 mph Wind 90 degree 40.38 0.0059 0.0004 0.0138 0.0141			0.0926 0.0001	0.0675
60.38	Seismic Normal M2		0.0028 0.0003	0.0109
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Serviceability - 60 mph Wind 60 degree 40.38 0.0196 0.0272 0.0898 59.63 0.0392 0.0414 0.1053 60.38 0.0406 0.0420 0.1045 100.38 0.1103 0.0700 0.1682 160.37 0.3027 0.0756 0.3175 175.77 0.3644 0.0810 0.2330 180.00 0.3810 0.0819 0.2125 0.0852 60.38 0.0199 0.0155 0.0852 60.38 0.0411 0.0234 0.0938 100.38 100.38 0.0411 0.0234 0.0938 100.38 100.38 0.1118 0.0351 0.1543 160.37 0.3066 0.0244 0.3116 160.37 0.3668 0.0237 0.2375 180.00 0.3862 0.0236 0.1416 0.0234 0.0938 0.0230 0.0949 0.0				
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60.38	Serviceability - 60 mph Wind 60 degree			
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175.77 0.3644 0.0810 0.2330 180.00 0.3810 0.0819 0.2125 Serviceability - 60 m ph Wind 90 degree 40.38 0.0199 0.0155 0.0852 59.63 0.0398 0.0230 0.0949 60.38 0.0411 0.0234 0.0938 100.38 0.1118 0.0351 0.1543 160.37 0.3066 0.0244 0.3116 175.77 0.3688 0.0237 0.2375 180.00 0.3852 0.0236 0.1416 Serviceability - 60 m ph Wind Normal 40.38 0.0213 0.0241 0.1017 59.63 0.0424 0.0374 0.1317 60.38 0.0422 0.0380 0.1326				
Serviceability - 60 mph Wind 90 degree 40.38 0.0199 0.0155 0.0852 59.63 0.0398 0.0230 0.0949 60.38 0.0411 0.0234 0.0938 100.38 0.1118 0.0351 0.1543 160.37 0.3066 0.0244 0.3116 175.77 0.3688 0.0237 0.2375 180.00 0.3852 0.0236 0.1416 Serviceability - 60 mph Wind Normal 40.38 0.0213 0.0241 0.1017 59.63 0.0424 0.0374 0.1317 60.38 0.0442 0.0380 0.1326				
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Serviceability - 60 mph Wind Normal 40.38 0.0213 0.0241 0.1017 59.63 0.0424 0.0374 0.1317 60.38 0.0442 0.0380 0.1326				
59.63 0.0424 0.0374 0.1317 60.38 0.0442 0.0380 0.1326				
60.38 0.0442 0.0380 0.1326	Serviceability - 60 mph Wind Normal			
100.38 0.1193 0.0662 0.2055				
		100.38	0.1193 0.0662	0.2055

Site Number	: 275375	Code:	ANSI/TIA-2	22-G	© 2007 - 2015 by ATC	IP LLC. All rights reserved
Site Name:	Levesque CT, CT	Engineering Number:	61590621			3/24/2015 11:16:12 AM
Customer:	T- Mobile					
		160.37	0.3253	0.0691	0.3370	
		175.77	0.3919	0.0681	0.2424	
		180.00	0.4110	0.0681	0.3656	

Site Name:
Levesque CT, CT
Site Number:
275375
Engineering Number:
Engineer:
Date:
Date:
03/24/15
Tower Type:
Levesque CT, CT
275375
61590621
J. Johnson
03/24/15
SST w/3 Legs

Program Last Updated: 11/15/2012

Design Loads (Factored) - Analysis per TIA-222-G Standards

Design / Analysis / Mapping:	Analysis	
Compression/Leg:	136.9	k
Uplift/Leg:	115.2	k
Total Shear:	24.1	k
Moment:	2340.0	k-ft
Tower + Appurtenance Weight:	20.6	k
Depth to Base of Foundation (I + t - h):	3.50	ft
Diameter of Pier (d):	0.00	ft
Height of Pier above Ground (h):	0.50	
Width of Pad (W):	28.50	ft
Length of Pad (L):	28.50	ft
Thickness of Pad (t):	4.00	ft
Tower Leg Center to Center:	0.00	ft
Number of Tower Legs:	3.0	(1 if MP or GT)
Tower Center from Mat Center:	0.00	ft
Depth Below Ground Surface to Water Table:	99.00	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil Above Water Table:	110.0	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	50.0	pcf
Friction Angle of Uplift:	15.0	Degrees
Ultimate Coefficient of Shear Friction:	0.35	
Ultimate Compressive Bearing Pressure:	12000.0	•
Ultimate Passive Pressure on Pad Face:		psf
Soil and Concrete Weight:	0.9	
⊅ _{Soil} :	0.75	

Concrete Strength (f c):	3000 psi
Pad Tension Steel Depth:	44.00 in
φ _{Shear} :	0.75
φ _{Flexure} / Tension:	0.90
Φ _{Compression} :	0.65
β:	0.85
Bottom Pad Rebar Size #:	7
# of Bottom Pad Rebar:	29
Pad Bottom Steel Area:	17.40 in ²
Pad Steel F _y :	60000 psi
Top Pad Rebar Size #:	7
# of Top Pad Rebar:	29
Pad Top Steel Area:	17.40 in ²

Overturning Moment Usage

Design OTM: 2436.2 k-ft

OTM Resistance: 6604.0 k-ft

Design OTM / OTM Resistance: 0.37 Result: OK

Soil Bearing Pressure Usage

Net Bearing Pressure:

Factored Nominal Bearing Pressure:

Net Bearing Pressure/Factored Nominal Bearing Pressure:

Load Direction Controling Design Bearing Pressure:

1125 psf
9000 psf
0.12 Result: OK
Diagonal to Pad Edge

Sliding Factor of Safety

Total Factored Sliding Resistance: 132.4 k
Sliding Design / Sliding Resistance: 0.18 Result: OK

One Way Shear, Flexual Capacity, and Punching Shear

Factored One Way Shear (V_u) :

One Way Shear Capacity (ϕV_c):

 $V_u / \phi V_c$:

Load Direction Controling Shear Capacity:

Lower Steel Pad Factored Moment (M_u):

Lower Steel Pad Moment Capacity (ϕM_n):

 $M_u / \phi M_n$:

Load Direction Controling Flexural Capacity:

Upper Steel Pad Factored Moment (Mu):

Upper Steel Pad Moment Capacity (ϕM_n):

 $M_u / \phi M_n$:

Lower Pad Flexural Reinforcement Ratio:

Upper Pad Flexural Reinforcement Ratio:

Lower Pad Reinforcement Spacing:

Upper Pad Reinforcement Spacing:

Factored Punching Shear (V_u):

Nominal Punching Shear Capacity $(\phi_c V_n)$:

 $V_u / \phi V_c$:

206.1 k

1236.3 k - ACI11.3.1.1

0.17 Result: OK

Parallel to Pad Edge

2046.5 k-ft

3405.4 k-ft - ACI10.3

0.60 Result: OK

Parallel to Pad Edge

1109.9 k-ft

3405.4 k-ft

0.33 Result: OK

0.0012 OK - Minimum Reinforcement Ratio Met - ACI10.5.1

0.0012 OK - Minimum Reinforcement Ratio Met - ACI10.5.1

12 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4

12 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4

132.1 k

999.4 k - ACI11.12.2.1

0.13 Result: OK

Nominal and Design Moment Capacity and Factored Design Loads

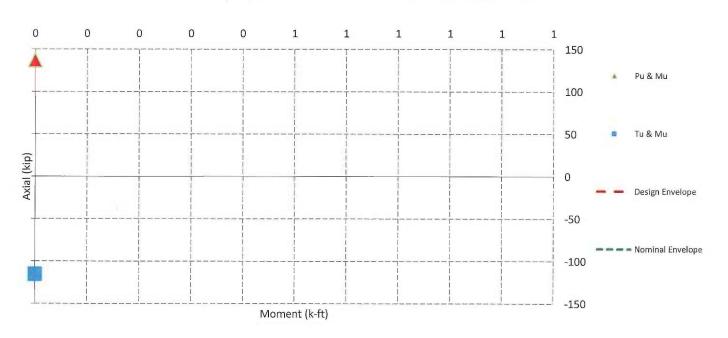


EXHIBIT C



RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CT11477B

CT477/General Comm.SST 1140 Wolcott Road Wolcott, CT 06716

March 30, 2015

EBI Project Number: 6215001908

Site Compliance	e Summary
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	28.16 %



March 30, 2015

T-Mobile USA Attn: Jason Overbey, RF Manager 35 Griffin Road South Bloomfield, CT 06002

Emissions Analysis for Site: CT11477B - CT477/General Comm.SST

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **1140 Wolcott Road**, **Wolcott, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μ W/cm²). The number of μ W/cm² calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) - (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (μ W/cm²). The general population exposure limit for the 700 MHz Band is 467 μ W/cm², and the general population exposure limit for the PCS and AWS bands is 1000 μ W/cm². Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Tel: (781) 273.2500 Fax: (781) 273.3311



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at **1140 Wolcott Road, Wolcott, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 GSM channels (PCS Band 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel
- 2) 2 UMTS channels (AWS Band 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 3) 2 LTE channels (AWS Band 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 4) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.
- 5) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.



- 6) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 7) The antennas used in this modeling are the Ericsson AIR21 (B4A/B2P & B2A/B4P) for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the Commscope LNX-6515DS-VTM for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The Ericsson AIR21 (B4A/B2P & B2A/B4P) have a maximum gain of 15.9 dBd at their main lobe. The Commscope LNX-6515DS-VTM has a maximum gain of 14.6 dBd at its main lobe. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antenna mounting height centerline of the proposed antennas is 162 feet above ground level (AGL).
- 9) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculations were done with respect to uncontrolled / general public threshold limits.



T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	В	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	162	Height (AGL):	162	Height (AGL):	162
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	2	Channel Count	2	# PCS Channels:	2
Total TX Power:	120	Total TX Power:	120	# AWS Channels:	120
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A1 MPE%	0.69	Antenna B1 MPE%	0.69	Antenna C1 MPE%	0.69
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	162	Height (AGL):	162	Height (AGL):	162
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power:	120	Total TX Power:	120	Total TX Power:	120
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A2 MPE%	0.69	Antenna B2 MPE%	0.69	Antenna C2 MPE%	0.69
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Commscope LNX- 6515DS-VTM	Make / Model:	Commscope LNX- 6515DS-VTM	Make / Model:	Commscope LNX- 6515DS-VTM
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	162	Height (AGL):	162	Height (AGL):	162
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power:	30	Total TX Power:	30	Total TX Power:	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A3 MPE%	0.27	Antenna B3 MPE%	0.27	Antenna C3 MPE%	0,27

Site Composite MPE%				
Carrier	MPE%			
T-Mobile	4.96			
2 Way Radio	0.40 %			
Verizon Wireless	22.80 %			
Site Total MPE %:	28.16 %			

T-Mobile Sector 1 Total:	1.65 %
T-Mobile Sector 2 Total:	1.65 %
T-Mobile Sector 3 Total:	1.65 %
Site Total:	28.16 %



Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general public exposure to RF Emissions.

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general public exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector 1:	1.65 %
Sector 2:	1.65 %
Sector 3:	1.65 %
T-Mobile Total:	4.96 %
Site Total:	28.16 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **28.16%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

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Burlington, MA 01803