AFF Consulting, LLC
21 Ridgecrest Drive
Napa, California 94558
Tel: 813-220-0077

February 14, 2018

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: **Notice of Modification Exemption – Facility Modification**
Rattlesnake Mountain (near 200 Colt Highway, Rte. 6) Farmington, CT 06032

Dear Ms. Bachman,

NBC Telemundo License LLC c/o ("NBC Universal") currently maintains a single broadcast antenna located on the 1000' guyed tower of Highway 166 in Farmington, Connecticut ("the property"). The tower is owned by: Outlet Broadcasting Inc c/o NBC Universal, Washington DC 20001. It is unknown if this was previously approved by the Council as it first went on air in 1953. NBC Universal intends to replace the broadcast antenna with a like-for-like shape and size broadcast antenna at the same level on the tower. This is simply a technology change as the Federal Communication Commission ("FCC") has asked for the frequency currently used to be returned and reassigned to another wireless provider. Included in Attachment 1 are the specifications for NBC Universal's replacement antenna.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes and exemption pursuant to the 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 sent to Kathleen A. Eagen, Town Manager of Farmington, William Warner, Farmington Planning Manager, Outlet Broadcasting Inc, the tower and property owner.

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

1. The proposed modifications **will not** result in an increase in height of the existing tower. NBC Universal's replacement antenna will be installed at the same elevation at the top of the existing tower.

2. The proposed modifications will not involve any change to ground based equipment as the equipment swap will be like-for-like in the same existing equipment building and, therefore, will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the replacement antenna will not increase radio frequency (RF) emissions at the facility to a level at or above the "FCC" safety standards. NO General Power Density study is being provided as the antennas are so far removed from the ground, levels are far below federal or local standards

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The tower and its foundation, with certain modifications described in the Structural Analysis Report included in Attachment 2, can support NBC Universal's proposed modifications.

A copy of the parcel map and owner information for the "Property" is included in Attachment 3. A Certification of mailing verifying that this filing was sent to municipal officials and the owner of the "Property" in included in Attachment 4.

For the foregoing reasons, NBC Universal submits that this proposed modification to the above reference broadcast communications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72 (b)(2).

Sincerely,

Anthony F. Flores

Enclosures
Copy to:
Kathleen A Eagen, Farmington Town Manager
William Warner, Farmington Planning Manager
Outlet Broadcasting, Inc., Tower and Property Owner

ANTENNA MODIFICATIONS
AT 200 COLT HIGHWAY
FARMINGTON, CT 06032 FOR
WVIT TV

ISSUED FOR PERMIT
FEBRUARY 13, 2018

DRAWINGS LIST N.T.S.

DRAWING NO.	SHT. NO.	BUILDING(S) DRAWINGS TITLE	SUBMISSION DATE: (2018)					
			02/13	–	–	–	–	–
T–101.00	1	TITLE SHEET LOCATION MAP & DRAWING LIST	PI	–	–	–	–	–
T–001.00	2	GENERAL NOTES	PI	–	–	–	–	–
STRUCTURAL								
S–100.00	3	SITE SURVEY SHEET 1	PI	–	–	–	–	–
S–200.00	4	SITE SURVEY SHEET 2	PI	–	–	–	–	–
S–300.00	5	SITE SURVEY SHEET 3	PI	–	–	–	–	–
S–101.00	6	ANTENNA PLAN AND ELEVATIONS	PI	–	–	–	–	–

SYMBOLS:

- NOTATION INDICATING TOP OF FINISHED FLOOR, TOP OF SLAB OR OTHER ELEVATIONS.
- A / A01 — SECTION LETTER/NUMBER, SHEET REFERENCE NUMBER
- 1 / A01 — ELEVATION NUMBER, SHEET REFERENCE NUMBER
- 1 / A01 — PLAN DETAIL, SHEET REFENCE NUMBER
- DISCONTINUITY
- ROOM 101 — ROOM NAME & NUMBER
- CLOUD AROUND CHANGE TO CONSTRUCTION DRAWINGS.

NOTES:

1. PLEASE NOTE THAT NOT ALL ABBREVIATIONS LISTED HERE ARE CONTAINED IN THESE DOCUMENTS. :
2. SUBMISSION DATES INDICATE COMPLETION OF PROJECT STAGING AS FOLLOWS:

#% = % COMPLETION
P.R. = PERMIT REVIEW
PER = PERMIT
F.S. = FINAL SUBMISSION
P.F.S. = PRE–FINAL SUBMISSION
I.F.C. = ISSUED FOR CONSTRUCTION

ABBREVIATIONS:

A, AMP	AMPERE
A/C, AC	AIR CONDITIONING
ACOUST.	ACOUSTICAL
AD	ACCESS DOOR
ADJ.	ADJUSTABLE
A.F.F.	ABOVE FINISH FLOOR
AFG	ABOVE FINISHED GRADE
ALUM.	ALUMINUM
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
AUTO	AUTOMATIC
AWG	AMERICAN WIRE GAUGE
BD.	BOARD
B.O.D.	BOTTOM OF DUCT
B.O.DF.	BOTTOM OF DIFFUSER
B.O.P.	BOTTOM OF PIPE
BLDG	BUILDING
BLK.	BLOCKING
BTU/HR	BRITISH THERMAL UNITS PER HOUR
CB	CIRCUIT BREAKER
CER.	CERAMIC
CFM	CUBIC FEET PER MINUTE
C.J.	CONTROL JOINT
C.J.O.	CLEAR JAMB OPNG.
CKT	CIRCUIT
C	CONDUIT
CLG	CEILING
CLR.	CLEAR
℄	CENTER LINE
CMU	CONC. MAS. UNIT
CONC	CONCRETE
COND.	CONDENSER/CONDENSATE
CONF.	CONFERENCE
CONST.	CONSTRUCTION
CONTIN.	CONTINUOUS
CPT.	CARPET
CRAC	COMPUTER ROOM AIR CONDITIONING
CT	CERAMIC TILE
CU	CONDENSING UNIT
DISC.	DISCONNECT
DEG.	DEGREE
DWG	DRAWING
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
D.O.	DITTO
DR.	DOOR
DWG.	DRAWING
EXIST.	EXISTING
EA.	EACH
EL.	ELEVATION
ELEC.	ELECTRIC
EMT	ELEC METAL TUBING
ENCL.	ENCLOSURE
ENTR.	ENTRANCE
EQ.	EQUAL
EXPAN.	EXPANSION
EMT	ELEC METAL TUBING
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
EXIST	EXISTING
EXT	EXTERIOR
EVAP	EVAPORATOR
F.D.	FIRE DAMPER
FIN.	FINISH
FL	FLOOR
F.O.C.	FACE OF CONCRETE
FT.	FOOT OR FEET
FTG.	FOOTING
FURR.	FURRING
°F	DEGREE FAHRENHEIT
FL	FLOOR
FLEX	FLEXIBLE
FT	FEET OR FOOT
G (GND)	GROUND
GA	GUAGE
GALV.	GALVANIZED
G.C.	GEN. CONTRACTOR
GL.	GLASS OR GLAZING
GYP.	GYPSUM
HC	HANDICAPPED
HDWE.	HARDWARE
HT.	HEIGHT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
HVAC	HEATING, VENTING & AIR CONDITIONING
HWH	HOT WATER HEATER
HOA	HAND–OFF–AUTO
HP	HORSEPOWER
HZ	HERTZ
IFR	ISSUED FOR REVIEW
IFP	ISSUED FOR PERMIT
IN	INCH OR INCHES
INSUL.	INSULATION
INT.	INTERIOR
INFO.	INFORMATION
INDIC.	INDICATOR
INT.	INTERNAL
JB	JUNCTION BOX
JAN.	JANITOR
JT.	JOINT
KCMIL	KILO (1000 CIRC. MILLS)
KW	KILOWATT
KWH	KILOWATT HOUR
LB	POUND
LAV.	LAVATORY
LOC	LOCATION
LOUV.	LOUVER
MACH.	MACHINE
MAINT.	MAINTENANCE
MATL.	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
M	METER
MIN	MINIMUM
MM	MILIMETER
MOIST.	MOISTURE
MTL.	METAL
MFT.	MANUFACTURER
M.O.	MASONRY OPENING
MTD.	MOUNTED
MUL.	MULLION
NOM.	NOMINAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELEC CODE
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
#/C	MULTI–COND. CABLE
OBD	OPPOSED BLADE DAMPER
O.C.	ON CENTER
O.A.I.	OUTSIDE AIR INTAKE
OFF.	OFFICE
O.H.	OVERHEAD
OPG.	OPENING
P	POLE
PART.	PARTITION
PAVE.	PAVEMENT
PDU	POWER DISTRIBUTION UNIT
PL.	PLATE
PTD.	PAINTED
PVC.	POLYVINYL CHLORIDE
PH	PHASE
PNL	PANEL
PWR	POWER
R.A	RETURN AIR
R.A.G.	RETURN AIR GRILLE
RAD.	RADIUS
REBAR.	REINFORCING BAR
REF.	REFERENCE
REFL.	REFLECTED
REINF.	REINFORCED
REQD.	REQUIRED
RGS	RIGID GALVANIZED STL
RM	ROOM
S.A.	SUPPLY AIR
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SW	SWITCH
SYM	SYMMETRICAL
TEMP	TEMPERATURE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UTIL.	UTILITY
W.W.F.	WELDED WIRE FABRIC
V	VOLT
VB	VINYL BASE
VCT	TILE VINYL COMPOSITION
W.G.	WATER GAUGE
XMFR	TRANSFORMER

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF:

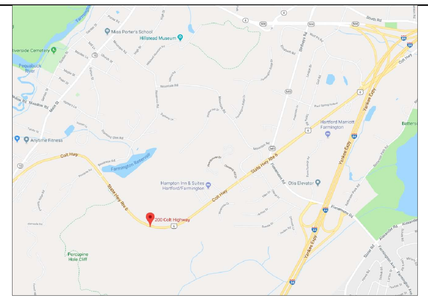
1. MOBILIZATION OF TOWER CREW TO THE PROJECT SITE.
2. RIGGING OF TOWER.
3. PERFORM ALL REQUIRED TOWER SHAFT MODIFICATION.
4. PERFORM ALL TOWER BASE MODIFICATIONS.
5. REMOVE EXISTING TOP MOUNTED DIELECTRIC MODEL TFU–28G BROADCAST ANTENNA.
6. INSTALL NEW TOP MOUNTED DIELECTRIC NEW TOP MOUNTED MODEL TFU–20ETT / VP–R 06 BROADCAST ANTENNA.
7. COMPLETION OF ALL WORK IN ACCORDANCE WITH DESIGN DRAWINGS BY STAINLESS DATED NOVEMBER 30, 2017 (DESIGN DRAWINGS 1106.0' GUYED G7 TOWER, NEW BRITAIN, CT).
8. DE–RIG AND DEMOBILIZE FROM SITE.

CODE COMPLIANCE

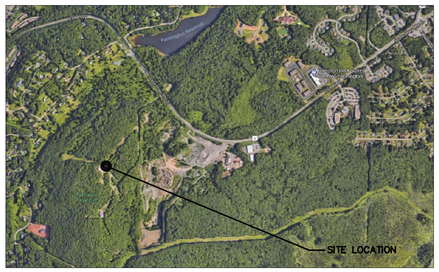
PURSUANT TO CONNECTICUT GENERAL STATUTE 29–252, AS AMENDED BY PUBLIC ACT 16–215, THE FOLLOWING NATIONAL MODEL CODES, AS AMENDED HEREIN, ARE ADOPTED AND SHALL BE KNOWN AS THE 2016 CONNECTICUT STATE BUILDING CODE.

2012 INTERNATIONAL BUILDING CODE
2009 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
2012 INTERNATIONAL EXISTING BUILDING CODE
2012 INTERNATIONAL PLUMBING CODE
2012 INTERNATIONAL MECHANICAL CODE
2012 INTERNATIONAL ENERGY CONSERVATION CODE
2012 NFPA 70, NATIONAL ELECTRICAL CODE, OF THE NATIONAL FIRE PROTECTION ASSOCIATION INC.
2012 INTERNATIONAL RESIDENTIAL CODE OF THE INTERNATIONAL CODE COUNCIL INC.
ANSI/TIA 222 REV G TOWER STANDARD AND THE ANSI/TIA 322 RIGGING STANDARD

SITE LOCATION MAPS



LOCAL CONTEXT



SATELLITE VIEW

PROJECT TEAM

ARCHITECT/ENGINEER:
EJC INTERNATIONAL SERVICES
30 GALESI DRIVE,
SUITE 202B
WAYNE, NJ 07470
CONTACT: RICHARD LaFORTUNE
(973) 785-4545
EMAIL: rlafortune@tse-ejc.com

APPLICANT/LESSEE:
WVIT TV Hartford
WVIT TV-NBC Connecticut
1422 New Britain Ave.
West Hartford, CT 06110
CONTACT: JAMES MOYER
EMAIL: james.moyer@nbcuni.com

ENTITLEMENTS & PERMITTING:
AFF CONSULTING, LLC
CONTACT: ANTHONY FLORES
TEL: (813) 220-0077
EMAIL: aflores@affconsultingllc.com

CONSTRUCTION MANAGER:
WVIT TV Hartford
WVIT TV-NBC Connecticut
1422 New Britain Ave.
West Hartford, CT 06110
CONTACT: JAMES MOYER
EMAIL: james.moyer@nbcuni.com

STRUCTURAL ENGINEER
STAINLESS
200 NORTH WARNER ROAD
SUITE 215
KING OF PRUSSIA, PA
CONTACT: DENNIA ABEL

ISSUED FOR PERMIT

SEAL:
STATE OF CONNECTICUT
RICHARD S. LAFORTUNE
LICENSED PROFESSIONAL ENGINEER
DATE: 2/13/18
NAME: RICHARD S. LAFORTUNE
STATE: CONNECTICUT
LICENSE NO: 0032896

EJC INTERNATIONAL SERVICES, LLC
30 GALESI DRIVE,
SUITE 202B
WAYNE, NJ 07470
(973) 785-4545

CONSULTANTS

NBC CONNECTICUT
1422 New Britain Ave,
West Hartford, CT 06107

SEAL

WVIT TV
ANTENNA
MODIFICATIONS

200 Colt HIghway
Farmington, CT 06032

MARK	DATE	DESCRIPTION		
		DWN	DSG	REV

ISSUE: 02/09/2018
PROJECT NO: 18C0001
CAD FILE: T–101.00.DWG
DRAWN BY: HPJ
CHECKED BY: RSL
REVIEWED BY: RSL

SHEET TITLE

TITLE SHEET
LOCATION MAP
DRAWING LIST

T–101.00
SHEET 1 OF 6

FEB 13, 2018 5:42 PM PJACKSON
I:\18JOBS\18C0001_WVIT TV HARTFORD CT\CADD\GEN\TITLE\T–101.00.DWG

LEGEND

NEW ANTENNA	GROUT OR PLASTER
EXISTING ANTENNA	(E) BRICK
GROUND ROD	(E) MASONRY
GROUND BUS BAR	CONCRETE
MECHANICAL GRND. CONN.	EARTH
CADWELD	GRAVEL
GROUND ACCESS WELL	PLYWOOD
ELECTRIC BOX	SAND
TELEPHONE BOX	WOOD CONTINUOUS
LIGHT POLE	WOOD BLOCKING
FND. MONUMENT	STEEL
SPOT ELEVATION	CENTERLINE
SET POINT	PROPERTY/LEASE LINE
REVISION	MATCH LINE
GRID REFERENCE	WORK POINT
DETAIL REFERENCE	GROUND CONDUCTOR
ELEVATION REFERENCE	TELEPHONE CONDUIT
SECTION REFERENCE	ELECTRICAL CONDUIT
	ELECTRICAL & TELCO CONDUITS
	COAXIAL CABLE
	OVERHEAD SERVICE CONDUCTORS
	CHAIN LINK FENCING
	WOOD FENCING

ABBREVIATIONS

A.B.	ANCHOR BOLT	GRND.	GROUND
ABV.	ABOVE	HDR.	HEADER
ACCA	ANTENNA CABLE COVER ASSEMBLY	HGR.	HANGER
ADD'L	ADDITIONAL	HT.	HEIGHT
A.F.F.	ABOVE FINISHED FLOOR	ICGB.	ISOLATED COPPER GROUND BUS
A.F.G.	ABOVE FINISHED GRADE	IN.(")	INCH(ES)
AGL	ABOVE GROUND LEVEL	INT.	INTERIOR
ALUM	ALUMINUM	LB.(#)	POUND(s)
ALT.	ALTERNATE	L.B.	LAG BOLTS
AMSL	ABOVE SEA LEVEL	L.F.	LINEAR FEET(FOOT)
ANT.	ANTENNA	L.	LONGITUDINAL
APPRX.	APPROXIMATE(LY)	MAS.	MASONRY
ARCH.	ARCHITECT(URAL)	MAX.	MAXIMUM
AWG.	AMERICAN WIRE GAUGE	M.B.	MACHINE BOLT
BLDG.	BUILDING	MECH.	MECHANICAL
BLK.	BLOCK	MFR.	MANUFACTURER
BLKG	BLOCKING	MIN.	MINIMUM
BM.	BEAM	MISC.	MISCELLANEOUS
B.N.	BOUNDARY NAILING	MTL.	METAL
BN	BACK-UP CABINET	(N)	NEW
CAB.	CABINET	NO.(#)	NUMBER
BTCW.	BARE TINNED COPPER WIRE	N.T.S.	NOT TO SCALE
B.O.F.	BOTTOM OF FOOTING	O.C.	ON CENTER
CANT.	CANTILEVER(ED)	OPNG.	OPENING
C.I.P.	CAST IN PLACE	P/C	PRE CAST CONCRETE
CLG.	CEILING	PCS	PERSONAL COMMUNICATION SERVICES
CLR.	CLEAR	PLY.	PLYWOOD
COL.	COLUMN	PPC.	POWER PROTECTION CABINET
CONC.	CONCRETE	PRC.	PRIMARY FLEXING CABINET
CONN.	CONNECTION(OR)	P.S.F.	POUNDS PER SQUARE FOOT
CONST.	CONSTRUCTION	P.S.I.	POUNDS PER SQUARE INCH
CONT.	CONTINUOUS	P.T.	PRESSURE TREATED
d	PENNY (NAILS)	PWR.	POWER (CABINET)
DBL.	DOUBLE	QTY.	QUANTITY
DEPT.	DEPARTMENT	RAD.(R)	RADIUS
D.F.	DOUGLAS FIR	REF.	REFERENCE
DIA.	DIAMETER	REINF.	REINFORCING
DIAG.	DIAGONAL	REQ"D.	REQUIRED
DIM.	DIMENSION	RGS.	RIGID GALVANIZED STEEL
DWG.	DRAWING(S)	SCH.	SCHEDULE
DWL.	DOWEL(S)	SHT.	SHEET
EA.	EACH	SIM.	SIMILAR
EL.	ELEVATION	SPEC.	SPECIFICATION(S)
ELEC.	ELECTRICAL	SQ.	SQUARE
ELEV.	ELEVATOR	S.S.	STAINLESS STEEL
EMT.	ELECTRICAL METALLIC TUBING	STD.	STANDARD
E.N.	EDGE NAIL	STL.	STEEL
ENG.	ENGINEER	STRUC.	STRUCTURAL
EQ.	EQUAL	TEMP.	TEMPORARY
EXP.	EXPANSION	THK.	THICKNESS
EXST.(E)	EXISTING	T.N.	TOE NAIL
EXT.	EXTERIOR	T.O.A.	TOP OF ANTENNA
FAB.	FABRICATION(OR)	T.O.C.	TOP OF CURB
F.F.	FINISH FLOOR	T.O.F.	TOP OF FOUNDATION
F.G.	FINISH GRADE	T.O.P.	TOP OF PLATE(PARAPET)
FIN.	FINISH(ED)	T.O.S.	TOP OF STEEL
FLR.	FLOOR	T.O.W.	TOP OF WALL
FDN.	FOUNDATION	TYP.	TYPICAL
F.O.C.	FACE OF CONCRETE	U.G.	UNDER GROUND
F.O.M.	FACE OF MASONRY	U.L.	UNDERWRITES LABORATORY
F.O.S.	FACE OF STUD	U.N.O.	UNLESS NOTED OTHERWISE
F.O.W.	FACE OF WALL	V.I.F.	VERIFY IN FIELD
F.S.	FINISH SURFACE	W	WIDE(WIDTH)
FT.(')	FOOT(FEET)	W/	WITH
FTG.	FOOTING	WD.	WOOD
G.	GROWTH(CABINET)	W.P.	WEATHERPROOF
GA.	GAUGE	WT.	WEIGHT
GI.	GALVANIZE(D)	℄	CENTERLINE
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER	⅊	PLATE
GLB.(GLU-LAM)	GLUE LAMINATED BEAM		
GPS	GLOBAL POSITIONING SYSTEM		

CONSTRUCTION NOTES

1- NOT USED

2- THE APPLICANT, ARCHITECT/ENGINEER, AND REPRESENTATIVES OF THE OWNER,MUST BE NOTIFIED AT LEAST TWO FULL DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

3- DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.

4- DO NOT SCALE BUILDING DIMENSIONS FROM DRAWINGS .

5- ANY DRAIN AND/OR FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK .SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-CONSTRUCTED DRAWINGS BY GENERAL CONTRACTOR AND ISSUED TO ARCHITECT AT COMPLETION OF PROJECT.

6- ALL EXISTING UTILITIES, FACILITIES, CONDITIONS AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.

7- CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION AND INSTRUCTION,AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE. CONTRACT SHALL CALL LOCAL DIGGER HOT LINE FOR UTILITY LOCATIONS 48 HOURS PRIOR TO START OF CONSTRUCTION.

8- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.

9- THE BUILDING DEPARTMENT ISSUING THE BUILDING PERMIT SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK OR AS STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.

10- GRADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO EXISTING GRADES AT THE GRADING LIMITS.

11- ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION(OSHA) REQUIREMENTS.

12- STRUCTURAL FILLS SUPPORTING PAVEMENTS SHALL BE COMPACTED TO 100% OF MAXIMUM STANDARD PROCTOR DRY DENSITY.

13- NEW GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH APPROVED CLEAN FILL AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.

14- ALL FILL SHALL BE PLACED IN UNIFORM LIFTS. THE LIFT'S THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.

15- ANY FILLS PLACED ON EXISTING SLOPES THAT ARE STEEPER THAN 10 HORIZONTAL TO I VERTICAL SHALL BE PROPERLY BENCHED INTO THE EXISTING SLOPE AS DIRECTED BY A GEOTECHNICAL ENGINEER.

16- THE GRADES WITHIN THE FENCED-IN AREA TO BE ACHIEVED BY COMPACTING CLEAN FILL TO A DENSITY OF 90% OF STANDARD PROCTOR COVERING THE AREA WITH 6 MIL. VISQUENE (L' OVERLAP AT SEAMS) FOR WEED SUPPRESSION, THEN ACHIEVING FINISH GRADE BY ADDING 6" OF 3/4" CRUSHED STONE - NO FINES.

17- CONTRACTOR SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, WEEDS, BRUSH OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE DISPOSED OF OFF-SITE BY THE GENERAL CONTRACTOR.

18- ALL TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE PROTECTED BY THE GENERAL CONTRACTOR.

19- DRIVE WAY CONSTRUCTION, GRADING AND DRAINAGE WORK SHALL CONFORM TO ARIZON STATE OF TRANSPORTATION "STANDARD SPECIFICATION FOR THE ROAD AND BRIDGE CONSTRUCTION ", LATEST EDITIONS, AND ALL APPLICABLE PROVISIONS OR LOCAL COUNTY ORDINANCES.

20- ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY GENERAL CONTRACTOR WITH LOCAL UTILITY COMPANY, TELEPHONE COMPANY, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.

21- CONTRACTOR TO VERIFY ALL FIELD EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF PROJECT.

DRAWING SPECIFICATIONS

1- THE LATEST EDITION OF THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A20I, "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION," ARE INCLUDED IN THESE SPECIFICATIONS AS IF COMPLETELY REPRODUCED HEREIN .

2- THIS FACILITY IS AN UNOCCUPIED TELECOMMUNICATIONS SITE AND IS EXEMPT FROM DISABLED ACCESS REQUIREMENTS.

3- THE DRAWINGS SHALL NOT BE SCALED. FIGURED DIMENSIONS HAVE PRECEDENCE OVER THE DRAWING SCALE, DETAIL DRAWINGS HAVE PRECEDENCE OVER SMALL SCALE DRAWINGS. THE CONTRACTOR SHALL CHECK THE ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED DO NOT FABRICATE ANY MATERIALS OR BEGIN ANY MATERIALS OR BEGIN ANY CONSTRUCTION UNTIL THE ACCURACY OF THE DRAWING DIMENSIONS HAVE BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS .

4- ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE PROJECT MANAGER AND THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK .

5- THE DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN . MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS . SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK .

6- REPRESENTATIONS OF THE TRUE NORTH , OTHER THAN FOUND ON THE PLOT OF THE SURVEY DRAWING ,SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH . THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF THE SURVEY DRAWING AND ANY SURVEYOR MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH . IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY , THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK . THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT / ENGINEER.

7- THESE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION .

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

9- THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE , TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK .

10- MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK . NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER .

11- GENERAL ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CONTRACTOR SPECIFICATIONS

1- PRIOR TO THE SUBMISSION OF BIDS , THE PARTICIPATING CONTRACTORS SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT, WITH THE CONSTRUCTION AND CONTRACT DOCUMENTS , FIELD CONDITIONS, AND CONFIRM THAT THE PROJECT CAN BE ACCOMPLISHED AS SHOWN , PRIOR TO SUBMISSION OF BIDS AND CONSTRUCTION . SHOULD ANY ERRORS , OMISSIONS , OR DISCREPANCIES BE FOUND , THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT MANAGER AND THE ARCHITECT/ ENGINEER , IN WRITING . IN THE EVENT OF DISCREPANCIES , THE CONTRACTOR SHALL INCLUDE THE MORE COSTLY OR EXTENSIVE WORK IN THE BID , UNLESS SPECIFICALLY DIRECTED OTHERWISE . IF A DISCREPANCY EXISTS AND THE PROJECT MANAGER AND ARCHITECT / ENGINEER ARE NOT NOTIFIED , THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COSTS INCURRED TO REPAIR OR CORRECT ALL PROBLEMS THAT RESULT.

2- EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION . IF THEY DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER AND THE ARCHITECT / ENGINEER , SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK .

3- THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER AND THE ARCHITECT / ENGINEER IF ANY OF THE DETAILS ARE CONSIDERED IMPRACTICAL, UNSUITABLE, UNSAFE, NOT WATERPROOFED, OR NOT WITHIN CUSTOMARY TRADE PRACTICE . IF WORK IS PERFORMED , IT WILL BE ASSUMED THAT THAT THERE IS NO OBJECTION TO ANY DETAIL . THE DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS AND SHALL BE INCLUDED AS PART OF THE WORK .

4- THE CONTRACTOR SHALL OBTAIN , IN WRITING AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS .

5- ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES , REGULATIONS , AND ORDINANCES . CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS,AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

6- THE CONTRACTOR AND SUBCONTRACTORS SHALL COMPLY WITH ALL LOCAL CODES, REGULATIONS, AND ORDINANCES, AS WELL AS, STATE DEPARTMENT OF INDUSTRIAL REGULATIONS AND DIVISION OF INDUSTRIAL SAFETY (OSHA) REQUIREMENTS.

7- THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A DETAILED RIGGING PLAN IN ACCORDANCE WITH THE ANSI/ TIA 322 RIGGING STANDARD AND THE ANSI/ ASSE A10.48-2016 SAFETY STANDARD

8. THE WORKMANSHIP THROUGHOUT SHALL BE OF THE BEST QUALITY OF THE TRADE INVOLVED AND SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REFERENCE STANDARDS FOR QUALITY AND PROFESSIONAL CONSTRUCTION PRACTICE:

9- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION , UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE .

10- ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY THE GENERAL CONTRACTOR WITH LOCAL ELECTRICAL COMPANY , TELEPHONE COMPANY AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION .

11- THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS , LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK .

12- THE CONTRACTOR SHALL SUPERVISE AND DIRECT ALL WORK USING HIS BEST SKILL AND ATTENTION , HE SHALL SOLELY BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS METHODS , TECHNIQUES , PROCEDURES AND SEQUENCES , AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT

13- THE CONTRACTOR SHALL PROTECT THE PROPERTY OWNERS , PROTECT MANAGER AND THE CARRIERS PROPERTY FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION ANY DAMAGE TO NEW AND EXISTING CONSTRUCTION , STRUCTURE LANDSCAPING , CURBS , STAIRS, EQUIPMENT , ETC , SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROJECT MANAGER , THE PROPERTY OWNER, OR THE OWNERS REP. AT THE EXPENSE OF THE CONTRACTOR .

14- THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE OR REMEDY , ANY FAULTY IMPROPER, OR INFERIOR MATERIALS OR WORKMANSHIP , OR ANY DAMAGE WHICH SHALL APPEAR WITHIN ONE YEAR AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK BY CLIENT OR ITS REPRESENTATIVES, UNDER THIS CONTRACT.

15- THE CONTRACTOR SHALL VERIFY, COORDINATE, AND PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORTS FOR ALL ITEMS REQUIRING THE SAME .

16- PENETRATIONS OF ROOF MEMBRANES SHALL BE PATCHED/ FLASHED AND MADE WATERTIGHT USING MATERIALS IN ACCORDANCE WITH RCA ROOFING STANDARD AND DETAILS. THE CONTRACTOR SHALL OBTAIN DETAILING CLARIFICATION FOR SITE-SPECIFIC CONDITIONS FROM THE ARCHITECT/ENGINEER, IF NECESSARY, BEFORE PROCEEDING .

17- THE CONTRACTOR SHALL CONTACT U.S.A UNDERGROUND BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK, OR CONSTRUCTION.

18- DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.

19- ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC.. SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

20- IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREIN OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.

21- THE CONTRACTOR SHALL PROVIDE TEMPORARY WATER, POWER AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER, THE PROJECT MANAGER, AND THE CITY OR GOVERNING AGENCY.

22 - THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND WASTE MATERIAL ON A DAILY BASIS AND SHALL EXERCISE STRICT CONTROL OVER JOB CLEANING THROUGHOUT CONSTRUCTION, INCLUDING FINAL CLEANUP UPON COMPLETION OF WORK. ALL AREAS ARE TO BE LEFT IN A BROOM CLEAN CONDITION AT THE END OF EACH DAY.

23- ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION, AND IN A MANNER THAT DOES NOT UNNECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. IN ADDITION, STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

24- THE GENERAL CONTRACTOR MUST PERFORM WORK DURING PROPERTY OWNER'S PREFERRED HOURS TO AVOID DISRUPTION OF NORMAL ACTIVITY.

25- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE PROJECT SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED AND ACCEPTED BY THE PROJECT MANAGER.

26- THE LATEST EDITION OF ALL PERMITTED AND APPROVED PLANS PERTAINING TO THIS PROJECT SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY THE WORKERS. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION. THE CONTRACTOR MUST ALSO MAINTAIN IN GOOD CONDITION, ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT.

27- THE CONTRACTOR SHALL PROVIDE A CLOSE-OUT PACKAGE TO THE PROJECT MANAGER, WHICH WILL INCLUDE:

A. BUILDING PERMITS/ELECTRICAL PERMITS
B. FINAL INSPECTION CARD
C. STAMPED BUILDING PERMIT PLANS
D. GROUNDING TEST
E. SWEEP TEST
F. CONCRETE TEST
G. SPECIAL INSPECTION REPORTS
H. WARRANTIES, MANUAL, EQUIPMENT SPECIFICATIONS
I. SUBCONTRACTOR CONTACT LIST
J. REDLINED AS-BUILTS
K. CONSTRUCTION PROCESS PHOTOS
L. SITE COMPLETION PHOTOS
M. A WRITTEN REPORT ON ANTENNA SERIAL NUMBER FOR EACH SECTOR
N. MANUFACTURER'S PERFORMANCE REPORT FOR EACH ANTENNA

28- CONTRACTOR TO CALL USA UNDERGROUND AT LEAST TWO DAYS PRIOR TO COMMENCING ANY UNDERGROUND WORK AT 1-800-227-2600.

ENGINEERING REQUIREMENTS

1. ALL EXPOSED METAL SHALL BE HOT-DIPPED GALVANIZED.
2 . SEAL ALL PENETRATIONS THROUGH FIRE-RATED AREAS WITH U.L LISTED OR FIRE MARSHALL APPROVED MATERIALS IF AND WHERE APPLICABLE TO THIS FACILITY AND PROJECT SITE.
3 . ALL NEW OPENINGS IN THE EXTERIOR ENVELOPE OF CONDITIONED SPACES SUCH AS, AT WALL AND ROOF PENETRATIONS, SHALL BE CAULKED OR SEALED TO LIMIT INFILTRATION OF AIR AND MOISTURE.
4. THE ELECTRICAL POWER SYSTEM SHALL BE GROUNDED PER NEC ARTICLES 250 AND 810.
5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE DRAWINGS TO THE PROJECT MANAGER FOR APPROVAL. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE PROJECT MANAGER.
6. THE CONTRACTOR SHALL SUBMIT THREE COPIES OF EACH REQUEST FOR SUBSTITUTIONS. IN EACH REQUEST, IDENTIFY THE PRODUCT, FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
7. THE CONTRACTOR SHALL SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE PROJECT MANAGER, SUBMIT ACTUAL SAMPLES TO ZON ARCHITECTS, INC. FOR APPROVAL, IN LIEU OF CUT SHEETS.
8. CHANGE ORDERS MAY BE INITIATED BY THE PROJECT MANAGER AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE PROJECT MANAGER, SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT IT TO THE PROJECT MANAGER WITHIN SEVENTY-TWO HOURS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN THE SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER PROPOSALS. ANY CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED AND APPROVED BY THE PROJECT MANAGER SHALL PLACE FULL RESPONSIBILITY OF THESE ACTIONS ON THE CONTRACTOR.
9. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL FABRICATED MATERIALS WHICH SHALL BE REVIEWED BY STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION.

GENERAL REQUIREMENTS

1.PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR AIOBC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT CONSTRUCTION AREA.

2.THE CONTRACTOR SHALL, AT THEIR OWN EXPENSE, CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT, ALL INSURANCE AS ACTIONS ON THE CONTRACTOR.
REQUIRED AND LISTED. THE CONTRACTOR SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE, STATING ALL COVERAGE TO THE CELLULAR CARRIER. THE CELLULAR CARRIER SHALL BE NAMED AS AN ADDITIONAL COMPANY INSURED ON ALL POLICIES.

3.THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION 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 IN THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSIONS, WHICH MAY BE FOUND, SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.

4.THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.

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

6.BEFORE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THE PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE CELLULAR CARRIER'S PROJECT MANAGER PRIOR TO THE COMMENCEMENT OF ANY WORK.

7.THE CONTRACTOR SHALL SUBMIT A BAR TYPE PROGRESS CHART NOT MORE THAN THREE DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE. IT SHALL INDICATE A TIME BAR FOR EACH MAJOR CATEGORY OF WORK TO BE PERFORMED AT THE SITE, PROPERLY 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 SITE.

8.THE CONTRACTOR SHALL PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE PROJECT MANAGER.

9.A COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO THE START OF CONSTRUCTION.

10.NOTIFY THE PROJECT MANAGER IN WRITING NO LESS THAN FORTY-EIGHT HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENT.

11.THE CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE CELLULAR CARRIER , NOR WILL WIRELESS SERVICE BE ARRANGED.

12.DURING CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES . CONTRACTOR WILL COMPLY WITH ALL SAFETY REQUIREMENTS IN THEIR AGREEMENT.

ISSUED FOR PERMIT

SEAL: STATE OF CONNECTICUT RICHARD S. LAFORTUNE 32896 LICENSED PROFESSIONAL ENGINEER
DATE: 2/13/18
NAME: RICHARD S. LAFORTUNE
STATE: CONNECTICUT
LICENSE NO: 0032896

EJC INTERNATIONAL SERVICES, LLC
30 GALESI DRIVE,
SUITE 202B
WAYNE, NJ 07470
(973) 785-4545

CONSULTANTS

NBC CONNECTICUT
1422 New Britain Ave,
West Hartford, CT 06107

SEAL

WVIT TV ANTENNA MODIFICATIONS
200 Colt HIghway
Farmington, CT 06032

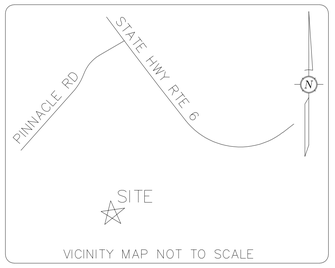
MARK	DATE	DESCRIPTION		
		DWN	DSG	REV

ISSUE: 02/09/2018
PROJECT NO: 18C0001
CAD FILE: T-001.00.DWG
DRAWN BY: HPJ
CHECKED BY: RSL
REVIEWED BY: RSL

SHEET TITLE

GENERAL NOTES

T-001.00
SHEET 2 OF 6



PARENT PARCEL INFORMATION

OWNER: OUTLET BROADCASTING INC
200 COLT HWY RTE 6, FARMINGTON, CT
DEED BOOK 554 PAGE 608
PARCEL NO 141 7B

ZONING: R80 (RESIDENTIAL)

THIS PARCEL OF LAND LIES WITHIN FLOOD ZONE X WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS PER F.I.R.M. PANEL NUMBER: 09003C0479F
EFFECTIVE DATE: September 26, 2008

LEGEND

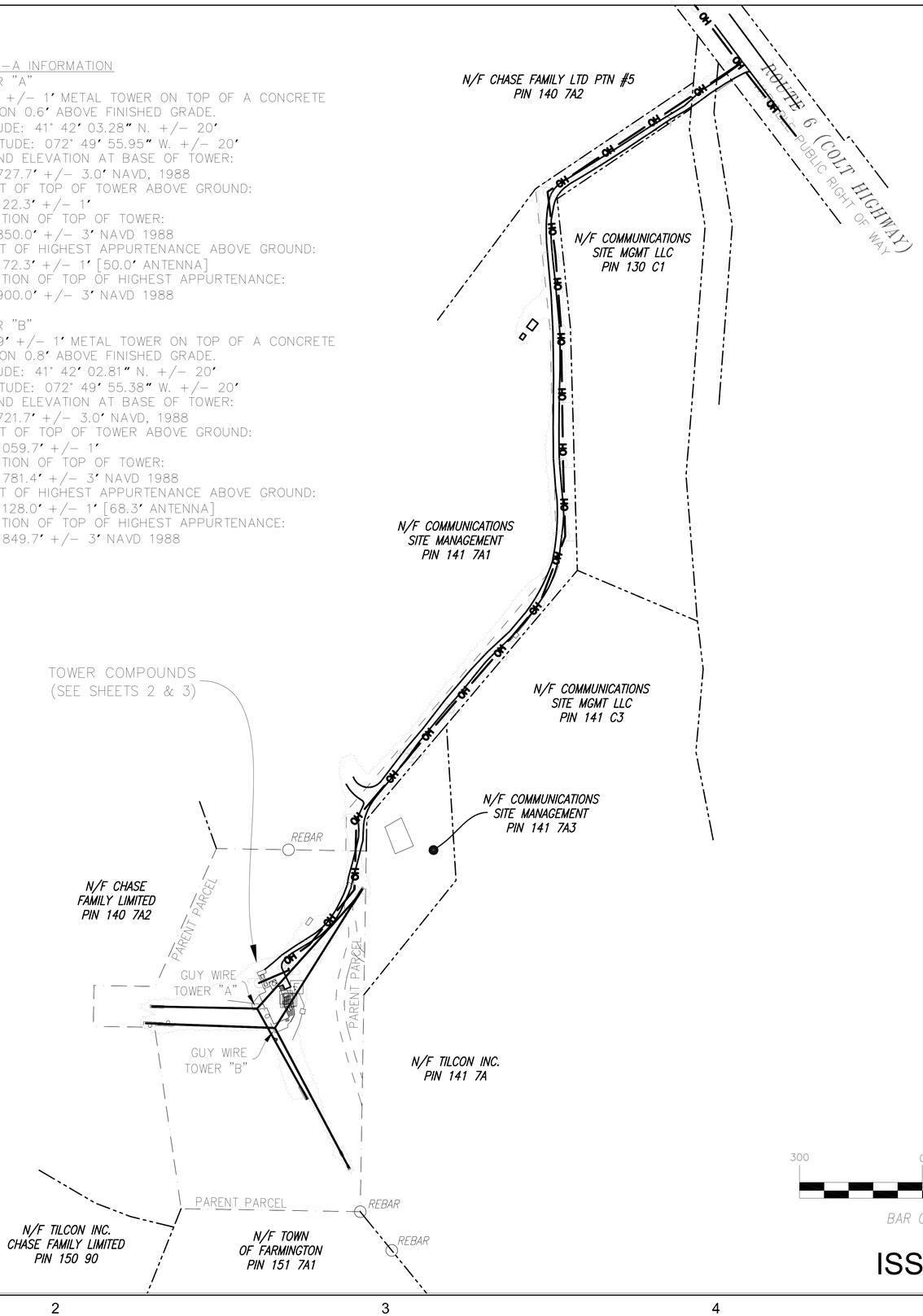
- ● : SET 5/8" REBAR, OR AS NOTED.
- ○ : FOUND 1/2" REBAR, OR AS NOTED.
- ■ : FOUND MONUMENT, OR AS NOTED.
- (___) : RECORD DESCRIPTION DATA.
- P.O.T. : POINT OF TERMINUS.
- P.O.B. : POINT OF BEGINNING.
- P.O.C. : POINT OF COMMENCEMENT.
- —— o —— : FENCE AS NOTED.
- —— OH —— : OVER HEAD UTILITY LINES.
- : WOOD UTILITY POLE.
- [E] : ELECTRIC TRANSFORMER.
- [T] : TELCO PEDESTAL.
- (HH) : HAND HOLE.
- N/A : NOT AVAILABLE
- : FLOOD LIGHT

AREA	SQUARE FEET	ACRE
PARENT PARCEL	435600	10
TOWER EASEMENT	TBD	TBD
TOWER COMPOUND		
ACCESS/UTILITY EASEMENT	TBD	TBD

FAA 1-A INFORMATION

TOWER "A"
121.7' +/- 1' METAL TOWER ON TOP OF A CONCRETE CAISSON 0.6' ABOVE FINISHED GRADE.
LATITUDE: 41° 42' 03.28" N. +/- 20'
LONGITUDE: 072° 49' 55.95" W. +/- 20'
GROUND ELEVATION AT BASE OF TOWER:
727.7' +/- 3.0' NAVD, 1988
HEIGHT OF TOP OF TOWER ABOVE GROUND:
122.3' +/- 1'
ELEVATION OF TOP OF TOWER:
850.0' +/- 3' NAVD 1988
HEIGHT OF HIGHEST APPURTENANCE ABOVE GROUND:
172.3' +/- 1' [50.0' ANTENNA]
ELEVATION OF TOP OF HIGHEST APPURTENANCE:
900.0' +/- 3' NAVD 1988

TOWER "B"
1058.9' +/- 1' METAL TOWER ON TOP OF A CONCRETE CAISSON 0.8' ABOVE FINISHED GRADE.
LATITUDE: 41° 42' 02.81" N. +/- 20'
LONGITUDE: 072° 49' 55.38" W. +/- 20'
GROUND ELEVATION AT BASE OF TOWER:
721.7' +/- 3.0' NAVD, 1988
HEIGHT OF TOP OF TOWER ABOVE GROUND:
1059.7' +/- 1'
ELEVATION OF TOP OF TOWER:
1781.4' +/- 3' NAVD 1988
HEIGHT OF HIGHEST APPURTENANCE ABOVE GROUND:
1128.0' +/- 1' [68.3' ANTENNA]
ELEVATION OF TOP OF HIGHEST APPURTENANCE:
1849.7' +/- 3' NAVD 1988



300 0 150 300 600

BAR GRAPH 1 inch = 300 ft.
S-100.00.DWG

ISSUED FOR PERMIT

NATIONAL SURVEY SERVICES COORDINATION BY:

GEOLINE SURVEYING, INC.
13430 NW 104th Terrace, Suite A Alachua, FL 32615
Office:(386) 418-0500 Fax:(386) 462-9986
WWW.GEOLINEINC.COM

SURVEY WORK PERFORMED BY:

JONATHAN MURPHY
Professional Land Surveying
10505 Leafwood Place (919) 280-8189
Raleigh NC 27613 FAX 995-9616
E-MAIL : raleigh@murphygeomatics.com FIRM C-2757

SURVEYOR'S NOTES

1. BASIS OF BEARING:
CT GRID NAD83

2. NO SUBSURFACE INVESTIGATION WAS PERFORMED TO LOCATE UNDERGROUND UTILITIES. UTILITIES SHOWN HEREON ARE LIMITED TO AND ARE PER OBSERVED EVIDENCE ONLY.

3. THIS SURVEY DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARENT PARCEL.

4. ALL VISIBLE TELECOM EQUIPMENT AND IMPROVEMENTS ARE CONTAINED WITHIN THE DESCRIBED AREA.

5. ALL SYMBOLS SHOWN HEREON NOT DEPICTED TO SCALE.

SEAL
STATE OF CONNECTICUT
RICHARD S. LAFORTUNE
22000
LICENSED PROFESSIONAL ENGINEER
DATE: 2/13/18
NAME: RICHARD S. LAFORTUNE
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REVIEWED BY: TC

SHEET TITLE
SITE SURVEY
SHEET 1

S-100-00
SHEET 3 OF 6

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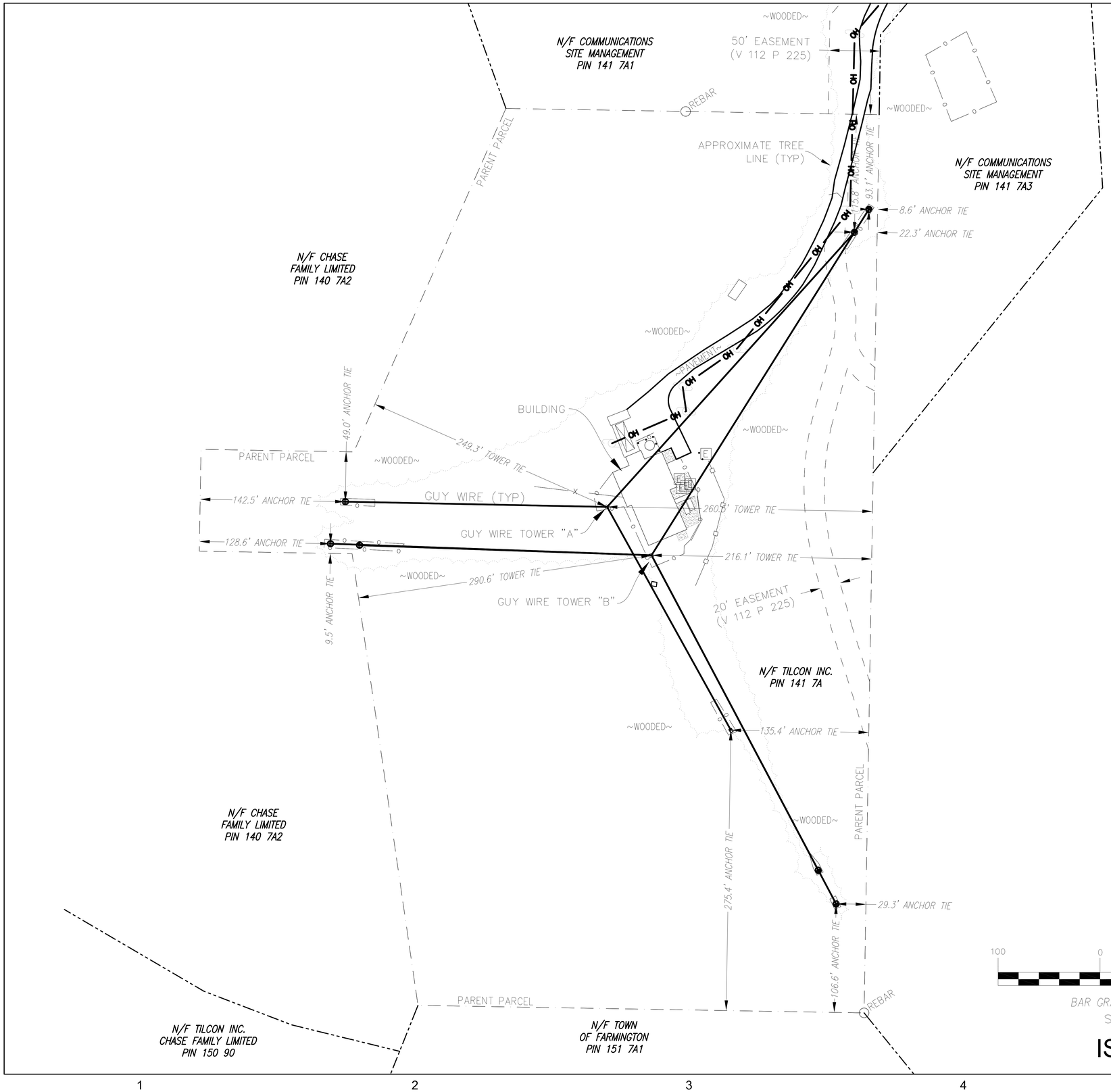

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REVIEWED BY: TC

SHEET TITLE

SITE SURVEY
SHEET 2

SEAL:
STATE OF CONNECTICUT
RICHARD S. LAFORTUNE
LICENSED PROFESSIONAL ENGINEER
DATE: 2/13/18
NAME: RICHARD S. LAFORTUNE
STATE: CONNECTICUT
LICENSE NO: 0032896

S-200-00

SHEET 4 OF 6

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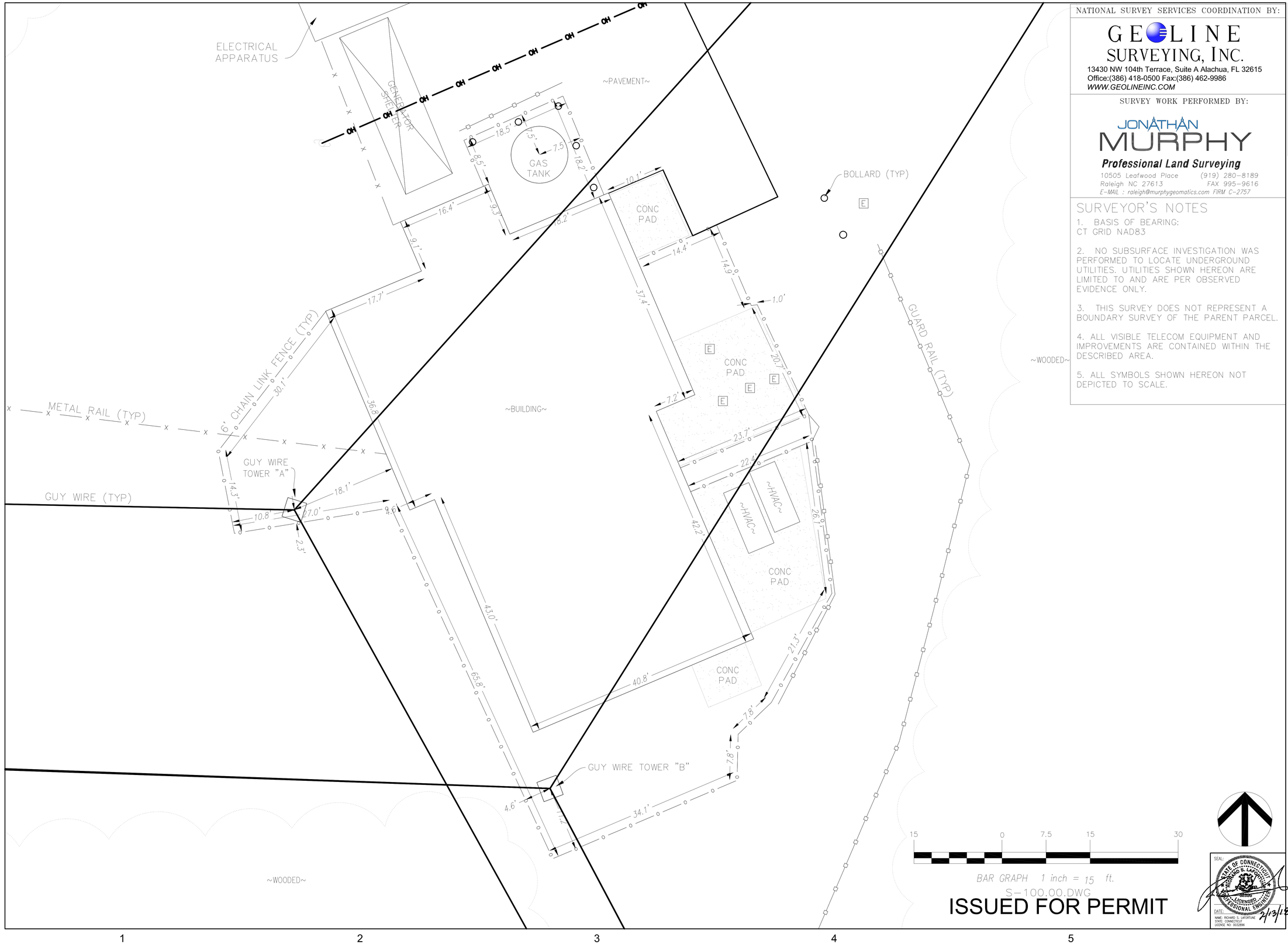

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Office:(386) 418-0500 Fax:(386) 462-9986
WWW.GEOLINEINC.COM

SURVEY WORK PERFORMED BY:

JONATHAN MURPHY
Professional Land Surveying
10505 Leafwood Place (919) 280-8189
Raleigh NC 27613 FAX 995-9616
E-MAIL : raleigh@murphygeomatics.com FIRM C-2757

SURVEYOR'S NOTES

1. BASIS OF BEARING: CT GRID NAD83

2. NO SUBSURFACE INVESTIGATION WAS PERFORMED TO LOCATE UNDERGROUND UTILITIES. UTILITIES SHOWN HEREON ARE LIMITED TO AND ARE PER OBSERVED EVIDENCE ONLY.

3. THIS SURVEY DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARENT PARCEL.

4. ALL VISIBLE TELECOM EQUIPMENT AND IMPROVEMENTS ARE CONTAINED WITHIN THE DESCRIBED AREA.

5. ALL SYMBOLS SHOWN HEREON NOT DEPICTED TO SCALE.

EJC INTERNATIONAL SERVICES, LLC
30 GALESI DRIVE,
SUITE 202B
WAYNE, NJ 07470
(973) 785-4545
CONSULTANTS

NBC CONNECTICUT

1422 New Britain Ave,
West Hartford, CT 06107

SEAL

WVIT TV
ANTENNA
MODIFICATIONS

200 Colt HIghway
Farmington, CT 06032

MARK	DATE	DESCRIPTION		
		DWN	DSG	REV

ISSUE: 02/09/2018
PROJECT NO: 18C0001
CAD FILE: S-100.00.DWG
DRAWN BY: HPJ
CHECKED BY: RSL
REVIEWED BY: TC

SHEET TITLE

SITE SURVEY
SHEET 3

SEAL:
STATE OF CONNECTICUT
RICHARD S. LAFONTAINE
LICENSED PROFESSIONAL ENGINEER
DATE: 2/13/18
NAME: RICHARD S. LAFONTAINE
STATE: CONNECTICUT
LICENSE NO: 0033896

S-300-00

SHEET 5 OF 6

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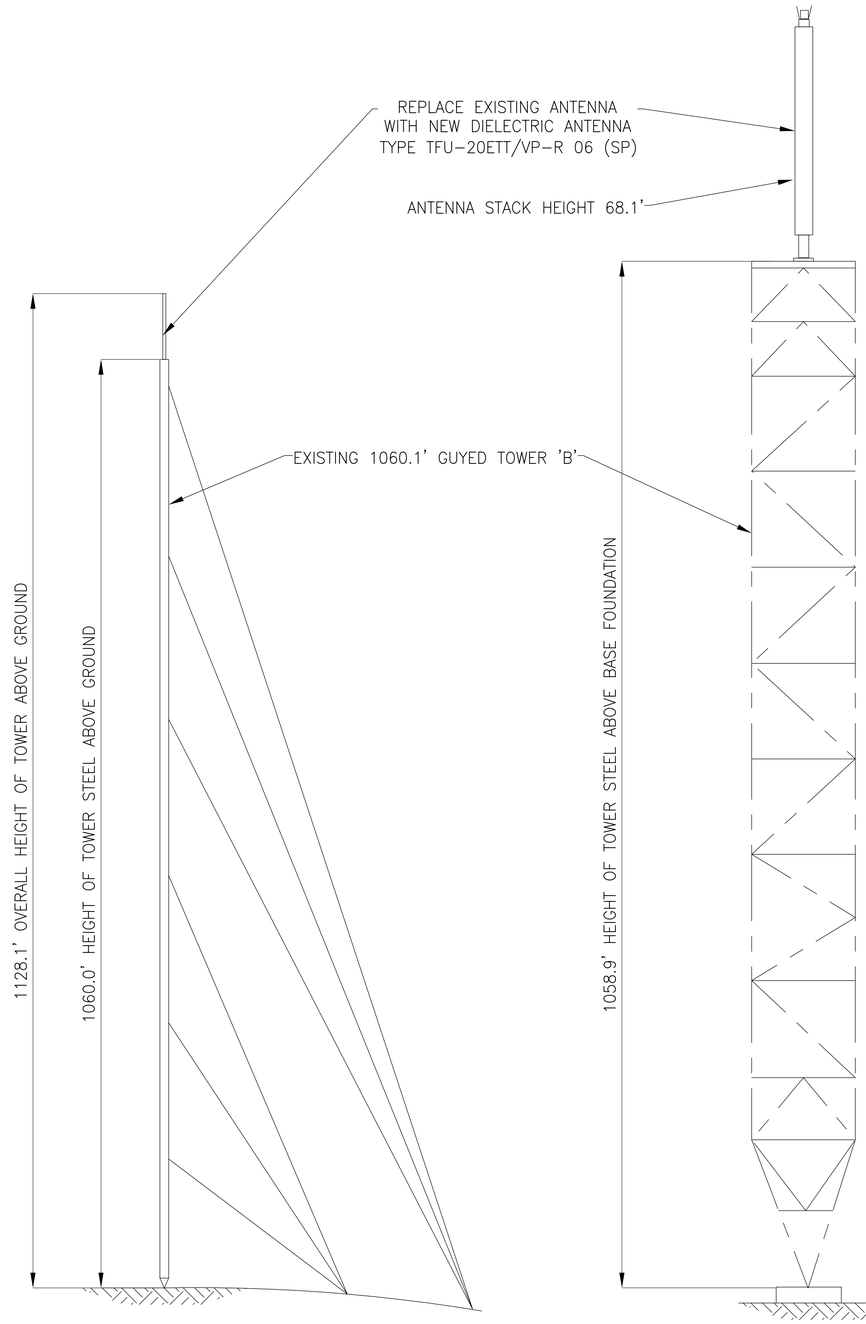
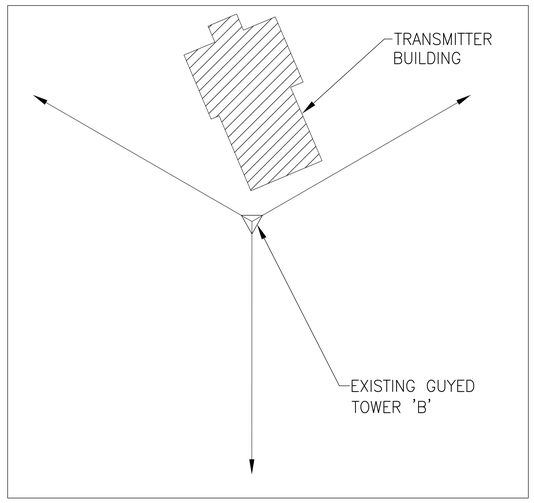


1 S-101.00 TOWER ELEVATION
NTS

2 S-101.00 TOWER ENLARGED ELEVATION
NTS



3 S-101.00 TOWER 'B' PLAN VIEW
NTS

Dielectric® TFU-20ETT/VP-R O6

Proposal Number:	C-70211-7
Date:	15-Feb-17
Customer:	NBC Universal
Location:	New Britain, CT

Electrical Specifications

Polarization	Elliptical		
Azimuth Pattern	Omni		
Antenna Input	6-1/8"	75 Ohm	EIA/DCA
VSWR	Channel	1.08 : 1	
Bandwidth	6 MHz		
Rated Input Power	50 kW	(16.99 dBk)	Maximum Average Power

Mechanical Specifications

Mounting	Bottom of a Stack		
Environmental Protection	Full Radome		
Height	39.1 ft (11.9m)		
Weight	6600 lb (3t)		
Effective Projected Area	42.7 ft² (4m²)	TIA-222-G	**Basic Wind Speed** 97 m/h (156.1 km/h)

Channel Specifications

Call	CH	Freq	Hpol ERP	Vpol ERP	TPO	RMS Main Lobe Hpol Gain	RMS Main Lobe Vpol Gain	RMS at Horizontal Hpol Gain	RMS at Horizontal Vpol Gain
WVIT	31	575 MHz	374.0 kW (25.73 dBk)	187.0 kW (22.72 dBk)	38.0 kW (15.80 dBk)	13.07 (11.16dB)	6.53 (8.15dB)	8.79 (9.44dB)	4.39 (6.43dB)

Andre J Skalina
I have reviewed this document
16:11:44 2018.02.06 '00'05-

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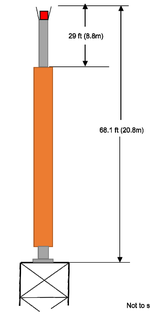

Not to scale

MECHANICALS

Proposal No.	**C-70211-7**
Date	**15-Feb-17**
Call Letters	**WVIT** **31**
Frequency	**575 MHz**
Antenna Type	**TFU-20ETT/VP-R O6**

Preliminary Specifications

Top Mounted

Mechanical Specification without ice TIA-222-G

Height AGL(z)	1057.4 ft (322.3 m)
Basic Wind Speed	97 m/h (156.1 km/h)
Structure Class	II
Exposure Category	C
Topography Category	1

Mechanical Specifications with ice TIA-222-G

Design Ice	1 in t_d = 2.80 in
Wind Speed w/ice	50 m/h (80.5 km/h)

Mechanical Specifications		**without ice**	**with ice**	**full stack**	**full stack with ice**
Height with Lightning Protector	H4			68.1 ft (20.8m)	
Height less Lightning Protector	H2	39.1 ft (11.9m)		64.1 ft (19.5m)	
Height of Center of Radiation	H3	19.55 ft (6m)		19.55 ft (6m)	
Effective Projected Area	$(EPA)_G$	42.7 ft² (4m²)	107.2 ft² (10m²)	61.1 ft² (5.7m²)	190.5 ft² (17.7m²)
Moment Arm	D1	19.5 ft (5.9m)	19.5 ft (5.9m)	29.1 ft (8.9m)	32.8 ft (9.9m)
Weight	W	6600 lb (3t)	10600 lb (4.8t)	8750 lb (4t)	13700 lb (6.2t)

Antenna designed in accordance with AISC specifications for design of structural steel as prescribed by TIA-222-G

Prepared by: KLP **Date:** 15-Feb-17 **ME:** SPJC **EE:**
Rev. No.7 by: SPJC **Date:** 2-Feb-18

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CONSULTANTS

NBC CONNECTICUT
1422 New Britain Ave,
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SEAL

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MARK	DATE	DESCRIPTION		
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ISSUE: 02/09/2018
PROJECT NO: 18C0001
CAD FILE: S-101.00.DWG
DRAWN BY: HPJ
CHECKED BY: RSL
REVIEWED BY: RSL

SHEET TITLE
ANTENNA PLAN
AND ELEVATONS

SEAL: STATE OF CONNECTICUT · RICHARD S. LAFORTUNE · 00396 · LICENSED PROFESSIONAL ENGINEER
DATE: 2/13/18
NAME: RICHARD S. LAFORTUNE
STATE: CONNECTICUT
LICENSE NO: 0032896

S-101.00
SHEET 6 OF 6

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King of Prussia, PA 19406

DESIGN DRAWINGS
1106.0' GUYED G7 TOWER
NEW BRITAIN, CT

INDEX

Rev	Description	Drawn by	Date	Checked by	Date	Reviewed by	Date	Approved by	Date
---	Initial Release	RE	11/8/2017	GH	11/28/17	GH	11/28/17	PRE	11/28/17

Project No.: 258114

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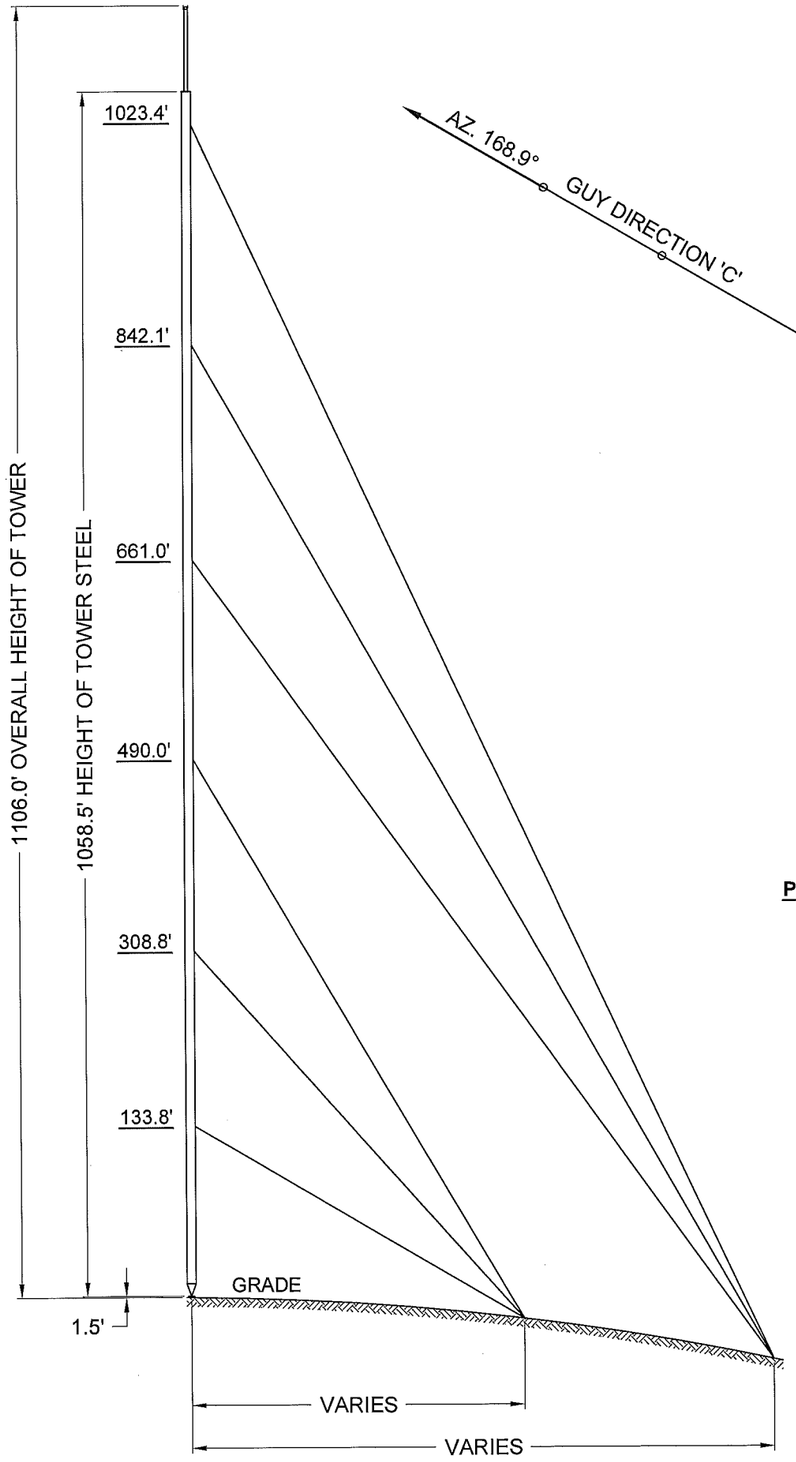
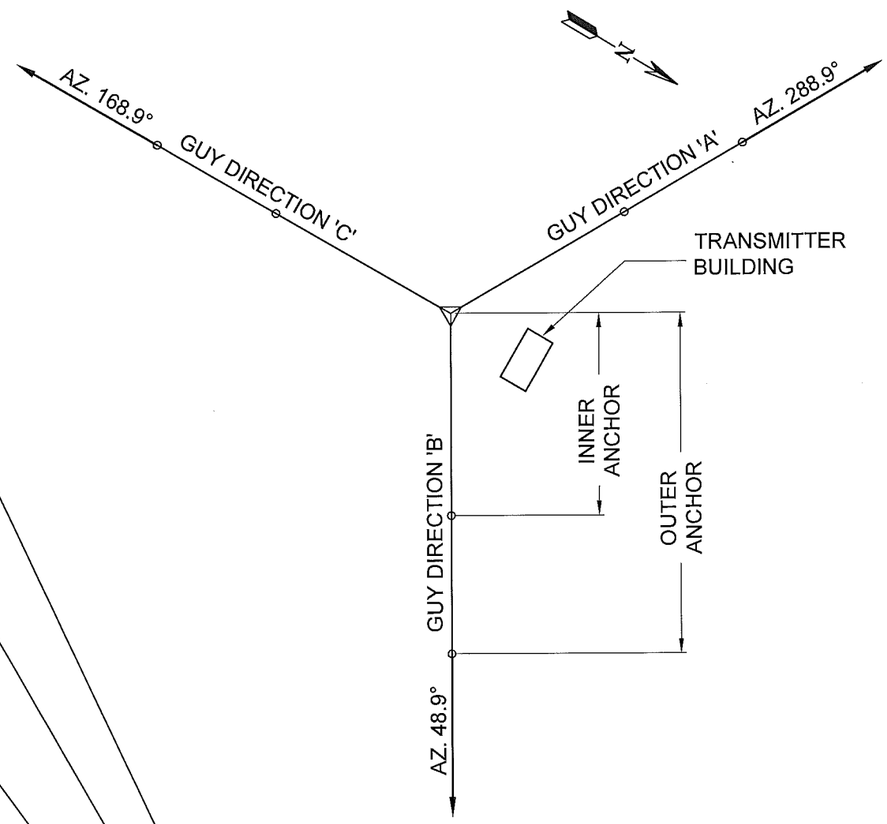
STATE OF CONNECTICUT
DENNIS D. ALBERT
No. 23247
LICENSED PROFESSIONAL ENGINEER

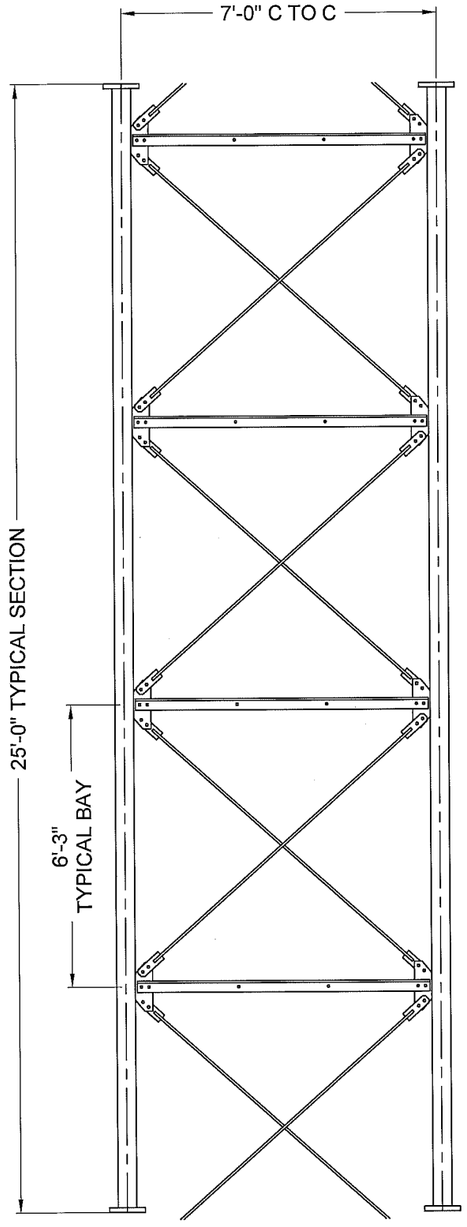
12-1-17



ELEVATION VIEW



PLOT PLAN



TOWER DETAIL

NOTE:
1. SEE PAGE D01.01 AND D01.02 FOR GENERAL NOTES.

PREPARED BY	RE 11/8/17
CHECKED BY	GM 11/28/17
ENGINEER REVIEW	PCC 11/28/17
PROJECT NUMBER	258114
DRAWING NUMBER	D01.00

*	REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE

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GENERAL ARRANGEMENT
NEW BRITAIN, CT

STATE OF CONNECTICUT
DENNIS D. ALI
No. 23247
LICENSED PROFESSIONAL ENGINEER
12-1-17

1. The tower is a guyed, triangular, non-insulated, open face structure.

2. The tower was analyzed per Stainless Rigorous Structural Analysis Report 258113 Rev. A, dated 6/30/2017 in accordance with the 2016 Connecticut State Building Code and ANSI/TIA 222-G-2005, Structural Standard for Antenna Supporting Structures and antennas, including addenda 1 and 2, dated 2007 and 2009 respectively, for the following analysis parameters while supporting equipment as listed below:

   - Structure Classification II
   - 125 mph ultimate wind speed with no ice
   - 50 mph normal design wind speed with 1"design ice thickness
   - Exposure Category B
   - Topographic Category 5 (Flat topped hill, H=220', L=1670', x=0')
   - 0.18 earthquake spectral response acceleration at short periods (S_s)
   - Earthquake Site Class D

   a. One (1) top mounted TFU-20ETT/VP-R 06 antenna (NB: replaces existing TFU-28G antenna), fed by one (1) 6-1/8" rigid coax (NB: replaces existing 8-3/16" rigid coax). **(Proposed)**
   b. One (1) TFU-22GTH/VP-R 4C140 antenna at the 1025' level, fed by one (1) 4-1/16" rigid coax.
   c. One (1) Proscan III ENG antenna at the 1020' level, fed by one (1) 1-5/8" line and one (1) 1" control cable.
   d. One (1) Outside transfer platform at the 1000' level.
   e. One (1) Step down transformer at the 945' level. **(Proposed)**
   f. Three (3) 3'x 4' ice shields at the 945' level. **(Proposed)**
   g. Six (6) ENGensis panel antennas and three (3) ENGensis radios at the 940' level, fed by one (1) 1/2" line. **(Proposed)**
   h. One (1) Station Master omni antenna at the 520' level, fed by one (1) 7/8" line.
   i. One (1) 8'x 9' ice shield at the 360' level.
   j. One (1) PA4-65 dish with radome at the 350' level, fed by one (1) WEP65 line.
   k. One (1) ENGensis ENG antenna at the 335' level, fed by one (1) 7/8" line and one (1) 1" control cable.
   l. One (1) DB-408 omni antenna at the 330' level, fed by one (1) 7/8" line.
   m. One (1) PA4-65 dish with radome at the 320' level, fed by one (1) WEP65 line.
   n. One (1) Diamond X-50A omni antenna at the 140' level, fed by one (1) 7/8" line.
   o. One (1) 6'x 7' ice shield at the 110' level.
   p. One (1) PA6-65 dish with radome at the 100' level, fed by one (1) WEP65 line.
   q. One (1) inside ladder w/cable safety device for the full height of the tower.
   r. One (1) 1-1/4" existing conduit to top.
   s. One (1) TechnoStrobe LED lighting system with armored cable, diameters vary up the tower (NB: replaces existing strobes). Full height of tower. **(Proposed)**

3. In order for the tower to achieve a 125 mph ultimate wind speed with no ice and a 50 mph normal design wind speed with 1" design ice thickness in accordance with the 2016 Connecticut State Building Code and ANSI/TIA 222-G for a maximum rating of 100%, the following modifications are required:

   a. Reinforce the tower base. It is assumed there are no physical obstructions, both above and below grade, preventing the installation of the foundation modification.
   b. Remove existing tower leg sub-horizontal bracing members between levels 704.6' thru 717.1' and 935.9' thru 948.4'
   c. Reinforce tower legs with full pipe sleeves at the following bays:

Location	No. of bays
704.0' – 718.0'	2
935.3' – 949.0'	2

   d. Install additional horizontal sub-horizontal bracing members at the midpoints of the following bays:

Location	No. of bays
0.0' – 10.0'	2
158.8' – 183.8'	4
233.8' – 271.3'	6
358.8' – 365.0'	1
598.4' – 604.6'	1
648.4' – 654.6'	1
679.6' – 698.4'	3
729.6' – 754.6'	4
760.9' – 779.6'	3

   e. Replace the existing diagonal braces with new, higher capacity members at the following locations:

Location	No. of bays
290.0' – 271.3'	3
998.4' – 948.4'	2

   f. Adjust initial tensions in all guy levels.
   g. Provide new top adapter plate assembly to accept new proposed antenna.

4. The design of the tower modifications above has been based upon Stainless Report 258113 Rev A, dated 6/30/2017. The details contained within this design drawing package are included for information and are not intended to be used as shop or final fabrication drawings. The Contractor shall field verify all dimensions, elevations and existing site conditions and notify Stainless immediately of any site discrepancies or variances. Contractor shall not scale dimensions from the design drawings. It shall be the responsibility of the Contractor to ensure proper fit-up of the tower modification materials.

5. All work shown on this design drawing package shall be performed by qualified contractor (s) with a minimum of 5 years experience in tower and foundation construction.

6. All material shall be in accordance with the notes, specifications and drawings. All deviations and substitutions must be approved by a registered Professional Engineer in the state where the work is being done and submitted to Stainless for approval prior to installation. The Contractor shall furnish satisfactory evidence as to the kind and quality of the materials and equipment being substituted. Contractor shall also be responsible for obtaining all necessary permits, licenses and any other requirements for the construction. Submit all necessary calculations for substitutions and design details.

7. Contractor shall observe safe construction practices and shall be responsible for all methods of construction, including proper and adequate bracing to the tower and excavation work during the installation process. Adequately designed temporary support shall be installed before any tower component is removed and replaced. All means and methods of construction, including construction and soil pressure loads, shall be properly calculated and documented by the Contractor.

8. If the construction activities require a rigging plan per the requirements of ANSI/ASSE A10.48 and ANSI/TIA-322-2016, a rigging plan shall be developed by a Qualified Person, submitted to the Owner for review and implemented by a competent rigger. The Qualified Person shall coordinate Class IV rigging plans with a Qualified Engineer for a structural analysis of the structure considering the construction loading. A properly detailed rigging plan shall include, as a minimum, a review of the following:

   - Operational and non-operational construction loads.
   - Equipment used, and Supporting structure
   - Construction sequence and durations

PREPARED BY	RE
CHECKED BY	GR
ENGINEER REVIEW	PCC
PROJECT NUMBER	258114
DRAWING NUMBER	D01.01

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GENERAL NOTES
NEW BRITAIN, CT

STATE OF CONNECTICUT
DENNIS D. ABEL
No. 23247
LICENSED PROFESSIONAL ENGINEER
12-1-17

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9. Stainless assumes no responsibility for the structural adequacy of the tower if non-conforming modification materials are supplied and/or installed by others, and shall have no liability whatsoever to owner or to others for any work performed by any persons other than Stainless in connection with the implementation of any structural changes or modifications not specifically addressed within this design drawing package. Owner acknowledges and agrees that any riggers, erectors or subcontractors retained or employed by owner shall be solely responsible to owner and to others for the quality of work performed by them and that Stainless shall have no liability or responsibility whatsoever as a result of any negligence or breach of contract by such rigger, erector or subcontractor.

10. The modification drawings contained herein are based on the assumption that the tower has been properly installed and maintained, including, but not limited to the following:

    a. Proper alignment and plumbness.
    b. Correct bolt tightness.
    c. No significant deterioration or damage to any component.

APPLICABLE CODES AND STANDARDS

Use latest editions of the following Codes and Standards unless noted otherwise.

1. ANSI/TIA-222-G 2005 Structural Standards for Antenna Supporting Structures and Antennas including Addenda 1 & 2, dated 2007 and 2009.
2. ANSI/ASSE A10.48 Criteria for Safety Practices Related to the Installation, Alteration, and Maintenance of Communication Structures. ANSI/TIA-322 Loading, Analysis and Design Criteria Related to the Installation, Alteration and Maintenance Communication Structures.
3. AISC Manual of Steel Construction.
4. RCSC Specification for Structural Joints Using ASTM A325 Bolts.
5. ACI 301 Specifications for Structural Concrete.
6. ACI 318 Building Code Requirements for Structural Concrete.
7. ACI 315 Details and Detailing of Concrete Reinforcement.
8. CRSI Manual of Standard Practice.
9. ASTM C260 Standard Specification for Air-Entraining Admixtures for Concrete.
10. ASTM C494 Standard Specification for Chemical Admixtures for Concrete.
11. ASTM A36 Standard Specification for Carbon Structural Steel.
12. ASTM A572 Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
13. ASTM A325 Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
14. ASTM A194 Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
15. ASTM F436 Standard Specification for Hardened Steel Washers.
16. ASTM A123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and products.
17. ASTM A153 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
18. ASTM A780 Standard Practice for Repair of Damage and Uncoated Areas of Hot-Dip Galvanized Coatings.
19. ASTM A615 Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement.

STRUCTURAL STEEL

1. The fabrication and erection of structural steel shall conform to the AISC Manual of Steel Construction.
2. Repair all damaged or uncoated areas of galvanized coatings in accordance with ASTM A780.
3. Locking ANCO style nuts shall be installed on all bolts unless noted otherwise.
4. All A325 high strength bolts shall be tightened by the "snug tightening" method as specified in the RCSC Specification for Structural Joints Using ASTM A325 Bolts unless noted otherwise on the design drawings.
5. Material grades shall be as follows:
    a. Bolts – A325X
    b. U-Bolts – A307 min.
    c. HSS – A500 Gr.B (min.42ksi)
    d. Plates and angles – A36
    e. Channels and Round Bars – A572 Grade 50

PLUMBING LINES

1. The tower is designed for initial tension as specified in the erection drawings. It is important that the guys be tensioned accurately to assure the stiffness of the tower.
2. Uneven terrain, temperature, plumbness of tower and wind are factors which affect guy tensions. If the tower site is level and anchor distances are equal, the tensions in all three guys at a level will be equal when the tower is plumb. If the terrain of the tower site is uneven, the guys are not perfectly symmetrical and tensions in guys vary in the three directions. For this reason initial guy tensions are specified in one direction only. The tower should be plumbed with the specified tensions in the given guy direction.
3. Wind load on tower and guys changes the tension in all guys; therefore, plumb the tower in calm weather only.
4. The plumbing of a tower or checking alignment of a tower should be performed in accordance with Annex J of ANSI/TIA 222-G.

REINFORCED CONCRETE

1. All concrete shall be in accordance with ACI 318 and ACI 301 and have a minimum compressive strength of 4000 psi after 28 days.
2. All concrete shall be sampled and tested in accordance with ACI 301. Testing shall be carried out by an independent testing laboratory.
3. Concrete shall not contain calcium chloride or any admixtures that contain chlorides. All admixtures used shall conform t ASTM C260 (air-entraining) and ASTM C494 (water reducing and/or accelerating)
4. All reinforcing bars shall be Grade 60 deformed bars in accordance with ASTM A615, and shall be fabricated and placed in accordance with ASTM 315, ACI 318 and CRSI's Manual of Standard Practice.
5. Minimum cover of the reinforcing bars for foundation concrete shall be 3".
6. All formwork shall conform to ACI 318. No rough lumber shall be used where the concrete surface is visible.
7. Concrete shall be placed monolithically unless noted otherwise on the drawings.
8. All exposed concrete corners shall be beveled neatly with approximately 1" chamfer.
9. Reinforcing bars shall be positioned as shown on the drawings and shall be adequately supported against displacement during concreting. Tack welding shall not be used.
10. Backfill near and around the foundation with a reasonably well graded fill and compact to original density.

WELDING

1. All welding shall be in accordance with AWS D1.1 Structural Welding Code-Steel.
2. All welding shall be performed by welders certified by the AWS in both type of weld and position of welding matching the details contained within this design drawings package.
3. All weld electrodes shall be low hydrogen E70XX or equal.
4. Prepare weld areas-Areas to be welded are to be free of scale, rust, galvanizing, and slag. All base metals shall be prepared in accordance to AWS D1.1.
5. Remove any galvanizing finish completely within a 2" perimeter of any weld zone.
6. Preheat material to 70 degree (F) if air temperature is below 32 degree (F). Material should be heat soaked through or a 3" minimum in every direction.
7. Refer to AWS D1.1 for general workmanship and technique.
8. No starts and stops are allowed at the end of the pipe corners. Weld wraps must begin and end at a 1" minimum away from the corners.

PREPARED BY	RE	11/9/17
CHECKED BY	GA	11/28/17
ENGINEER REVIEW	PZC	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D01.02	

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E. CK	DATE

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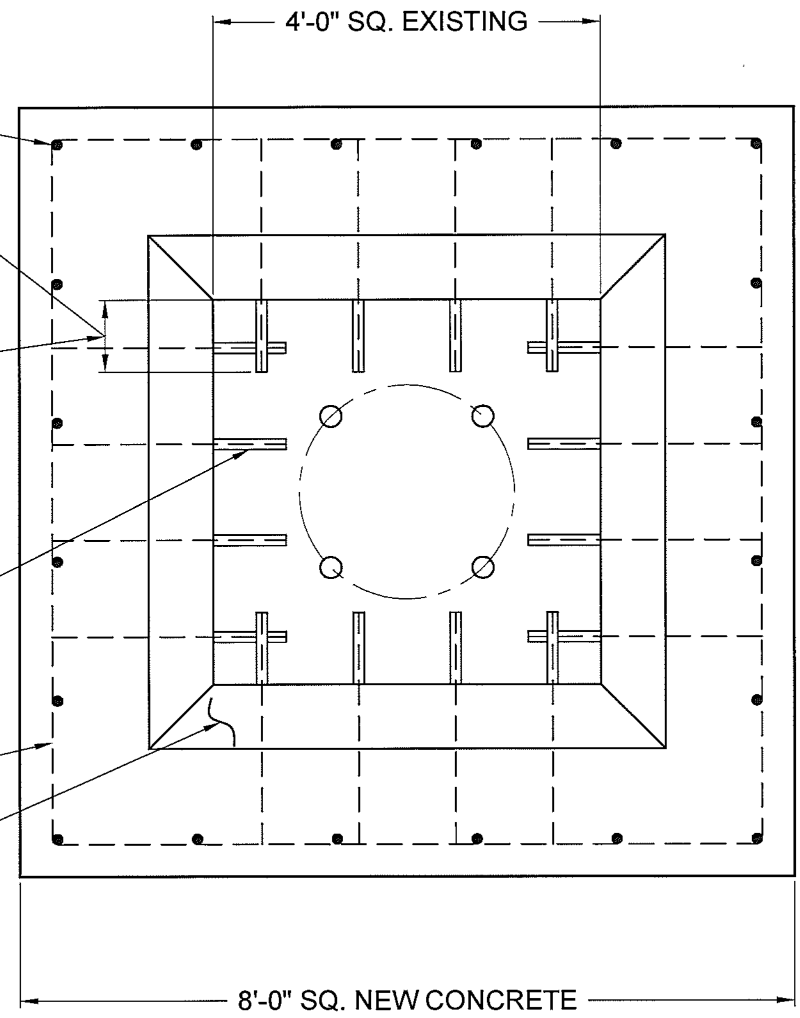
GENERAL NOTES
NEW BRITAIN, CT

STATE OF CONNECTICUT
DENNIS D. ABEL
No. 23247
LICENSED PROFESSIONAL ENGINEER
12-1-17

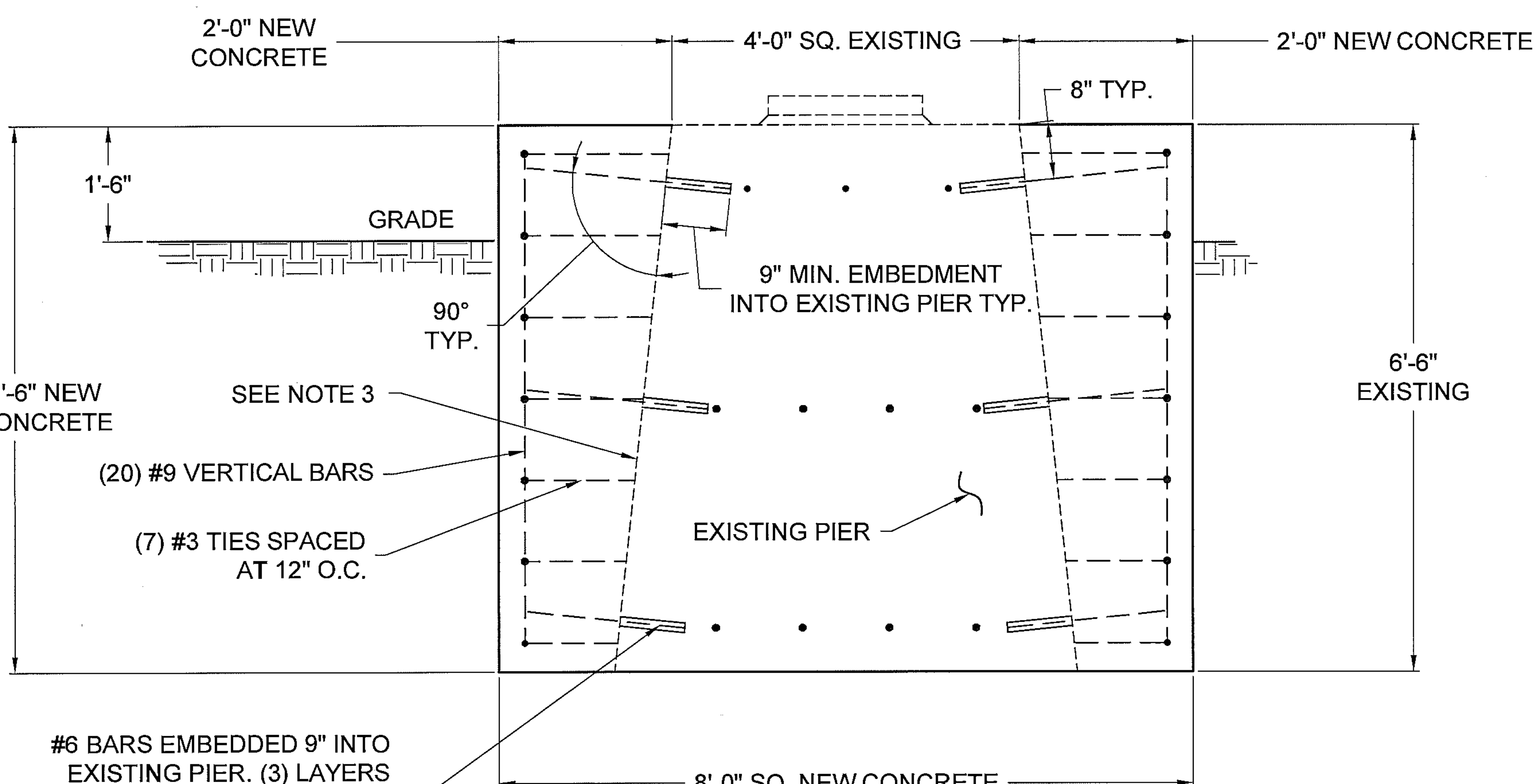
NOTES:
1. SEE PAGE D03.00 FOR FOUNDATION NOTES.
2. EXCAVATE AROUND PERIMETER OF EXISTING BASE PIER.
3. CLEAN AND ROUGHEN ALL INTERFACES BETWEEN OLD AND NEW CONCRETE. APPLY BONDING AGENT SIKADUR 32, HI-MOD LPL OR EQUIVALENT BONDING AGENT PRIOR TO NEW CONCRETE PLACEMENT. BONDING AGENT SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER APPLICATION SPECIFICATIONS AND GUIDELINES.
4. SECURE DOWELED IN REBAR WITH REBAR ADHESIVE (HILTI-HIT-HY 200 EPOXY ADHESIVE OR EQUIVALENT).

BILL OF MATERIAL

QTY.	NAME	DESCRIPTION
120'	REINFORCING BARS	#9 - ASTM A615 GRADE 60
100'	REINFORCING BARS	#6 - ASTM A615 GRADE 60
200'	REINFORCING TIES	#3 - ASTM A615 GRADE 60
12.0 CU. YDS.	CONCRETE	4000 PSI AFTER 28 DAYS
AS REQUIRED	HILTI-HIT-HY 200 ADHESIVE	----



PLAN VIEW



ELEVATION VIEW

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12-1-17

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BASE FOUNDATION MODIFICATION
NEW BRITAIN, CT

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
*							
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PREPARED BY	RE	11/10/17
CHECKED BY	GH	11/28/17
ENGINEER REVIEW	Pcc	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D02.00	

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FOUNDATION NOTES

1. All concrete to be in accordance with the current edition of ACI 318 and ACI 301 and have a minimum compressive strength of 4000 PSI after 28 days.
2. Concrete to be sampled and tested in accordance with ACI 301, paragraphs 16.3, 16.4, and 16.5. Testing to be performed by an independent testing laboratory.
3. All reinforcing shall be deformed steel bars in accordance with ASTM A615, Grade 60.
4. Concrete and reinforcing bars furnished by foundation contractor.
5. No rough lumber to be used where concrete surface is visible.
6. All exposed concrete corners shall be beveled neatly with approximately 1" chamfer.
7. Reinforcing shall be positioned as shown and adequately supported against displacement. Tack welding is not permitted.
8. Bend all reinforcing cold and remove all scale.
9. Minimum cover for reinforcing bars is 3".
10. The foundation must rest on undisturbed soil.
11. Backfill near and around all foundations with a reasonable well graded fill and compact to original density.
12. Elevation and flatness of base foundation top to be within plus or minus 1/4".
13. Foundation design is based upon the subsurface analysis performed by Clarence Welti Associates, Inc. dated July 19, 1976 for Connecticut Television Inc. tower project. Test boring data was forwarded to Stainless Inc. for job #2581.
14. If the actual subsurface conditions deviate from those described in the subsurface investigation or any other soil information provided, contact Stainless immediately.
15. Bill of Material is approximate and for reference only. Contractor must verify all quantities.

PREPARED BY	RE 11/9/17
CHECKED BY	GH 11/29/17
ENGINEER REVIEW	PCC 11/30/17
PROJECT NUMBER	258114
DRAWING NUMBER	D03.01

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E. CK	DATE

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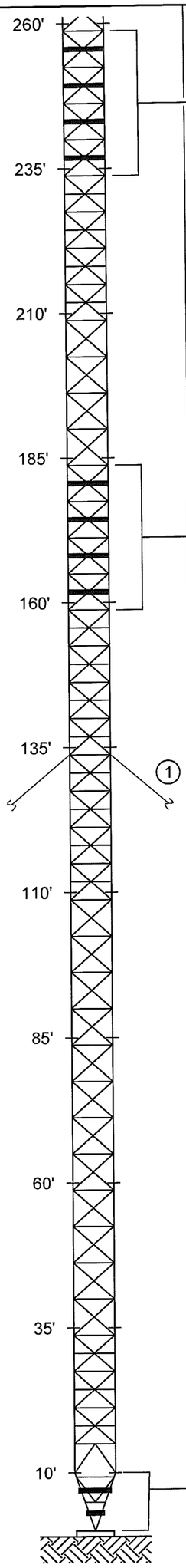
FOUNDATION NOTES

NEW BRITAIN, CT

STATE OF CONNECTICUT
DENNIS P. ALL
No. 23247
LICENSED PROFESSIONAL ENGINEER

12-1-17



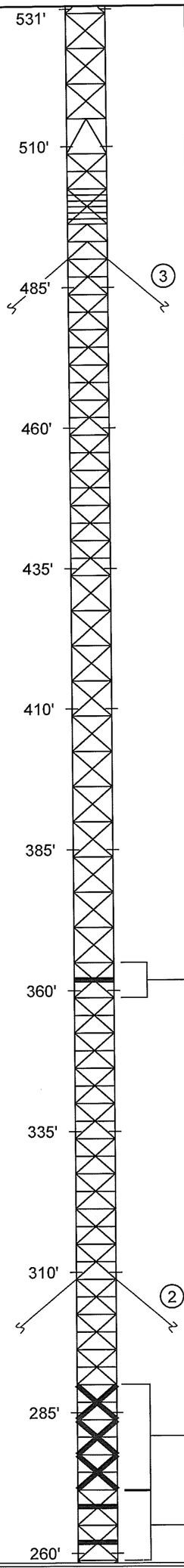
ADD HORIZONTAL SUB-BRACING
BETWEEN 233.8' - 258.8' (4 BAYS)
SEE PAGE D05.02

ADD HORIZONTAL SUB-BRACING
BETWEEN 158.8' - 183.8' (4 BAYS)
SEE PAGE D05.02

ADD HORIZONTAL SUB-BRACING
BETWEEN 0.0' - 10.0' (2 BAYS)
SEE PAGE D05.01

TOWER ELEVATION

TOWER MODIFICATIONS



ADD HORIZONTAL SUB-BRACING
BETWEEN 358.8' - 365.0' (1 BAY)
SEE PAGE D05.02

REPLACE DIAGONAL
BETWEEN 271.3' - 290.0' (3 BAYS)
SEE PAGE D05.03

ADD HORIZONTAL SUB-BRACING
BETWEEN 258.8' - 271.3' (2 BAYS)
SEE PAGE D05.02

TOWER ELEVATION

TOWER MODIFICATIONS

12-1-17

STATE OF CONNECTICUT
DENNIS D. REA
No. 23247
LICENSED PROFESSIONAL ENGINEER

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TOWER PROFILE
NEW BRITAIN, CT

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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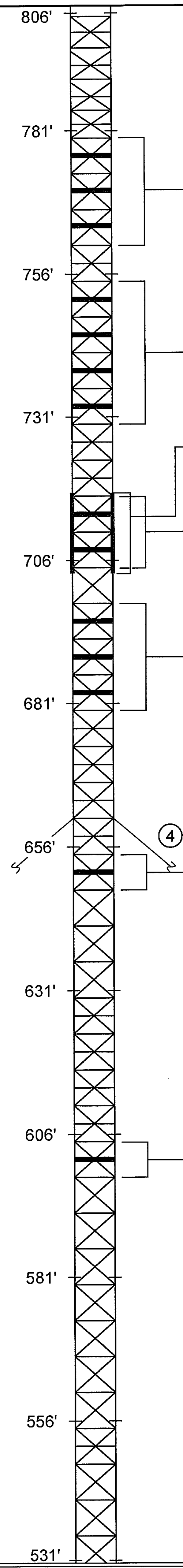
PREPARED BY	RE	11/8/17
CHECKED BY	GH	11/29/17
ENGINEER REVIEW	PCC	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D04.00	

TOWER ELEVATION



TOWER MODIFICATIONS

ADD HORIZONTAL SUB-BRACING
BETWEEN 760.9' - 779.6' (3 BAYS)
SEE PAGE D05.02

ADD HORIZONTAL SUB-BRACING
BETWEEN 729.6' - 754.6' (4 BAYS)
SEE PAGE D05.02

REINFORCE VERTICALS
BETWEEN 704.0' - 718.0' (2 BAYS)
SEE PAGE D05.04

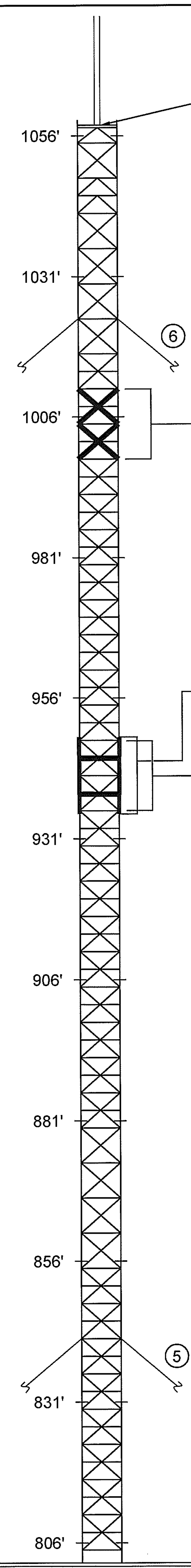
REMOVE EXISTING
HORIZONTAL SUB-BRACING
BETWEEN 704.6' - 717.1' (2 BAYS)

ADD HORIZONTAL SUB-BRACING
BETWEEN 679.6' - 698.4' (3 BAYS)
SEE PAGE D05.02

ADD HORIZONTAL SUB-BRACING
BETWEEN 648.4' - 654.6' (1 BAY)
SEE PAGE D05.02

ADD HORIZONTAL SUB-BRACING
BETWEEN 598.4' - 604.6' (1 BAY)
SEE PAGE D05.02

TOWER ELEVATION



TOWER MODIFICATIONS

NEW TOP ADAPTER PLATE TO
ACCEPT NEW TOP ANTENNA
SEE PAGE D05.06 FOR DETAILS

REPLACE DIAGONAL
BETWEEN 998.4' - 1010.9' (2 BAYS)
SEE PAGE D05.03

REINFORCE VERTICALS
BETWEEN 935.0' - 949.0' (2 BAYS)
SEE PAGE D05.05

REMOVE EXISTING
HORIZONTAL SUB-BRACING
BETWEEN 935.9' - 948.4' (2 BAYS)

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DENNIS D. ABEL
No. 23247
LICENSED
PROFESSIONAL ENGINEER
12-1-17

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200 North Warner Road, Suite 215
King of Prussia, PA 19406

TOWER PROFILE
NEW BRITAIN, CT

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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PREPARED BY	RE	11/8/17
CHECKED BY	BH	11/29/17
ENGINEER REVIEW	DCC	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D04.01	

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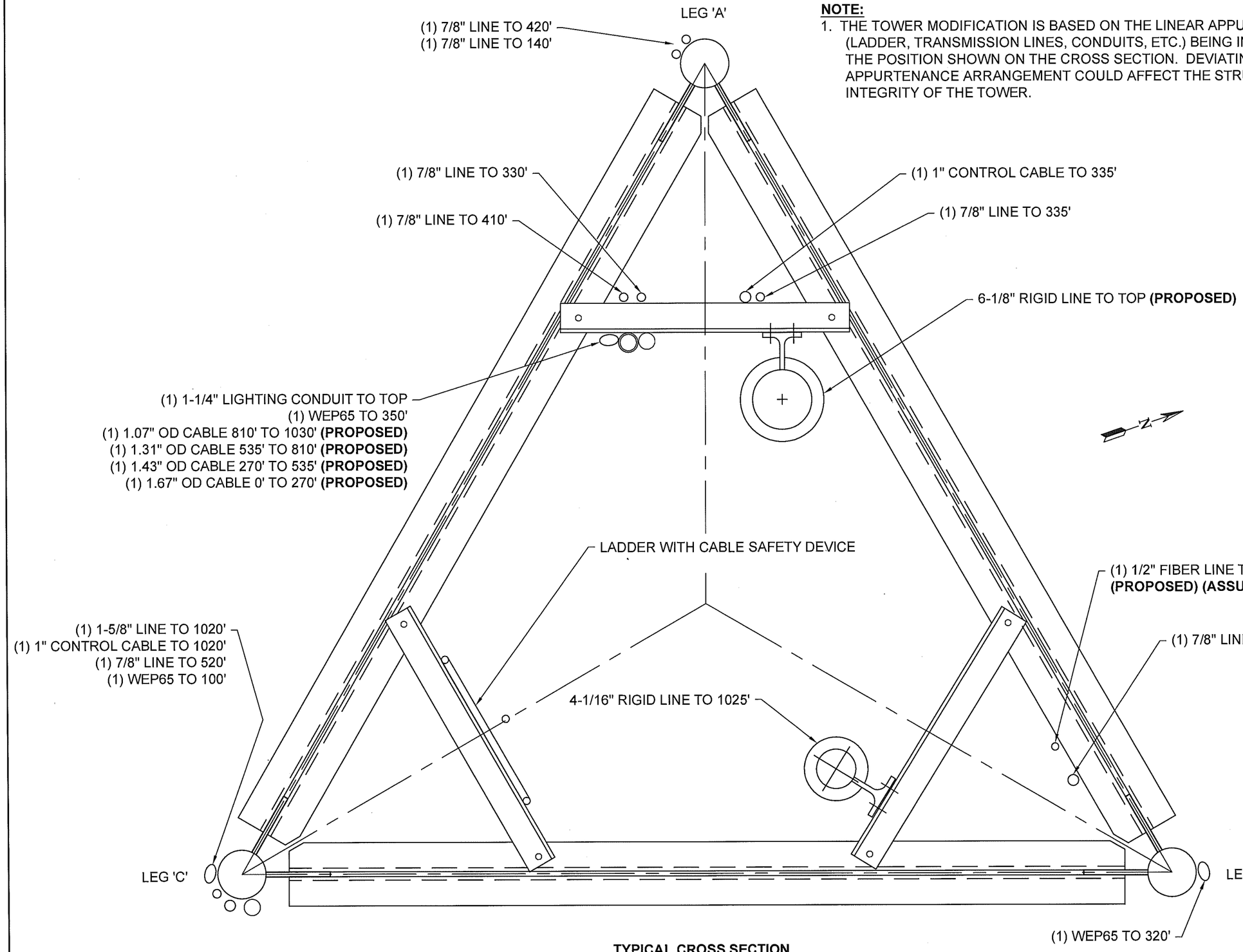
NOTE:

1. THE TOWER MODIFICATION IS BASED ON THE LINEAR APPURTENANCES (LADDER, TRANSMISSION LINES, CONDUITS, ETC.) BEING INSTALLED IN THE POSITION SHOWN ON THE CROSS SECTION. DEVIATING FROM THIS APPURTENANCE ARRANGEMENT COULD AFFECT THE STRUCTURAL INTEGRITY OF THE TOWER.



TYPICAL CROSS SECTION

PREPARED BY	CHECKED BY	ENGINEER REVIEW	PROJECT NUMBER	DRAWING NUMBER
RE	GA	pcc	258114	D05.00
11/10/17	11/22/17	11/30/17		

*	REV	BY	DATE
			D.CK
			DATE
			E.CK
			DATE

REVISION DESCRIPTION

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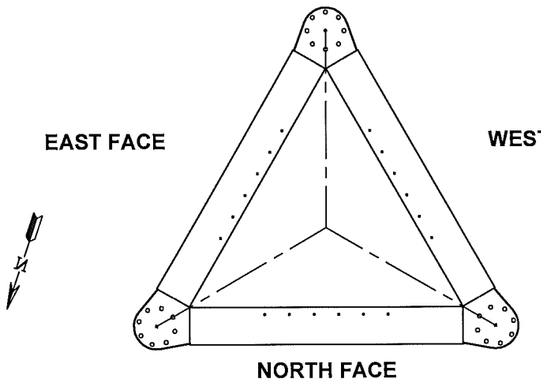
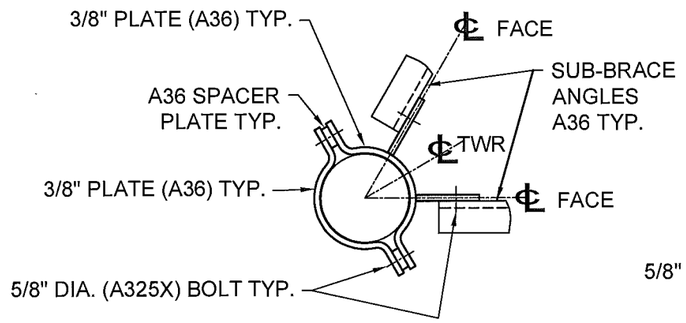
LINEAR APPURTENANCES
NEW BRITAIN, CT

STATE OF CONNECTICUT
DENNIS D. ABEL
No. 23247
LICENSED PROFESSIONAL ENGINEER

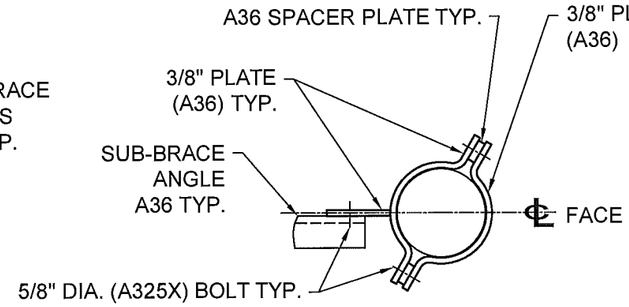
12-1-17



SECTION 'A'-'A'

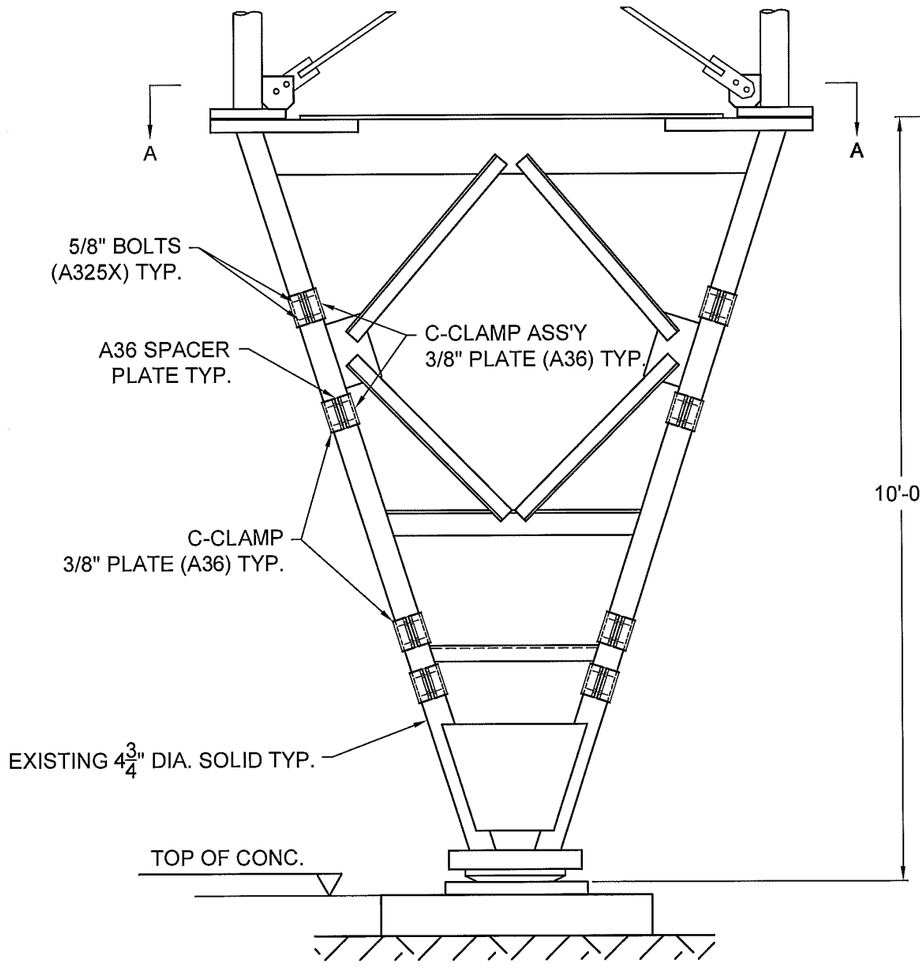


SECTION 'B'-'B' (AS SHOWN)
SUB-BRACE ANGLE TOE IN FOR SECTION 'B1'-'B1'

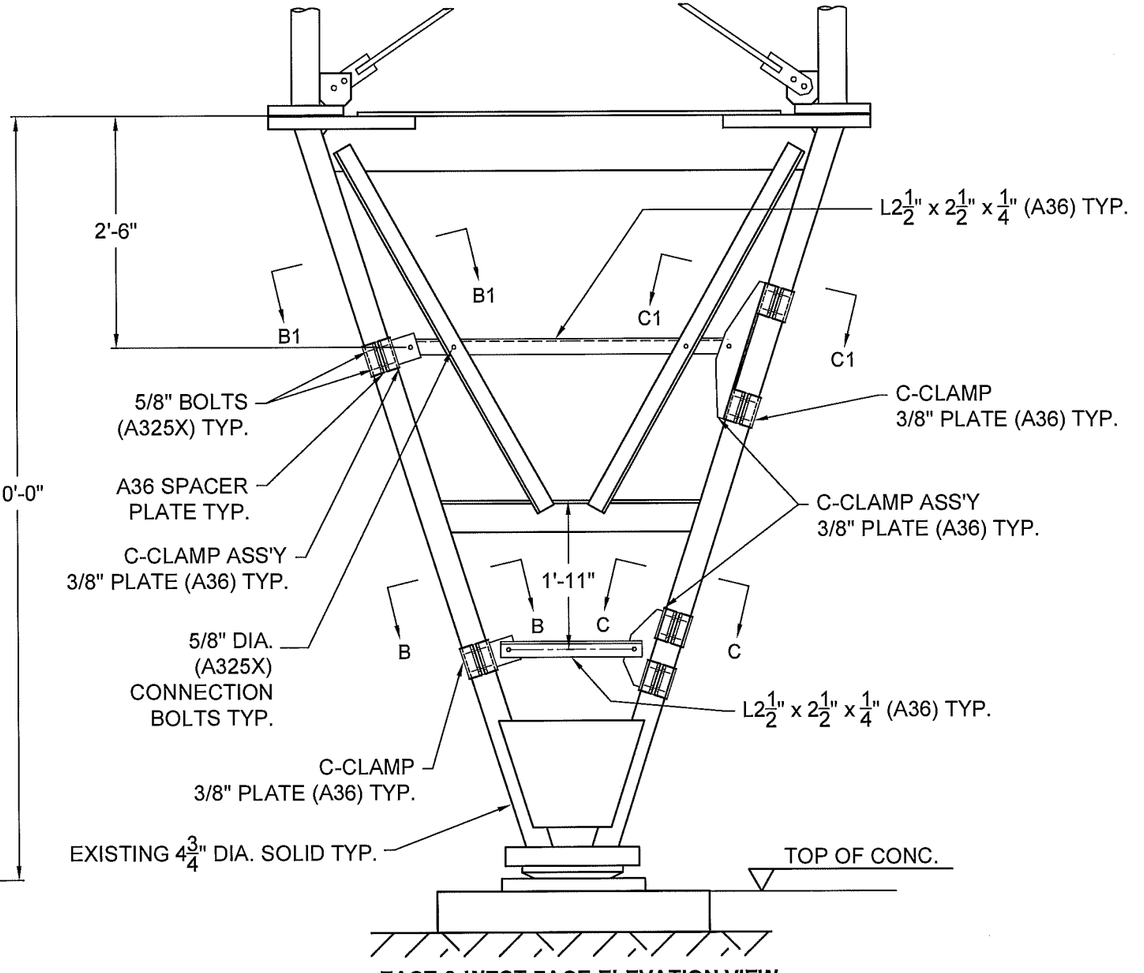


SECTION 'C'-'C' (AS SHOWN)
SUB-BRACE ANGLE TOE IN FOR SECTION 'C1'-'C1'

NOTE:
DESIGN SUB-BRACING CONNECTIONS PER ANSI/TIA 222-G BASED UPON THE MAXIMUM FACTORED LEG COMPRESSION LOAD (537 KIPS).



NORTH FACE ELEVATION VIEW
NO SUB-BRACING REQUIRED



EAST & WEST FACE ELEVATION VIEW
SUB-BRACING REQUIRED

PREPARED BY	RE
CHECKED BY	GH
ENGINEER REVIEW	PEC
PROJECT NUMBER	258114
DRAWING NUMBER	D05.01

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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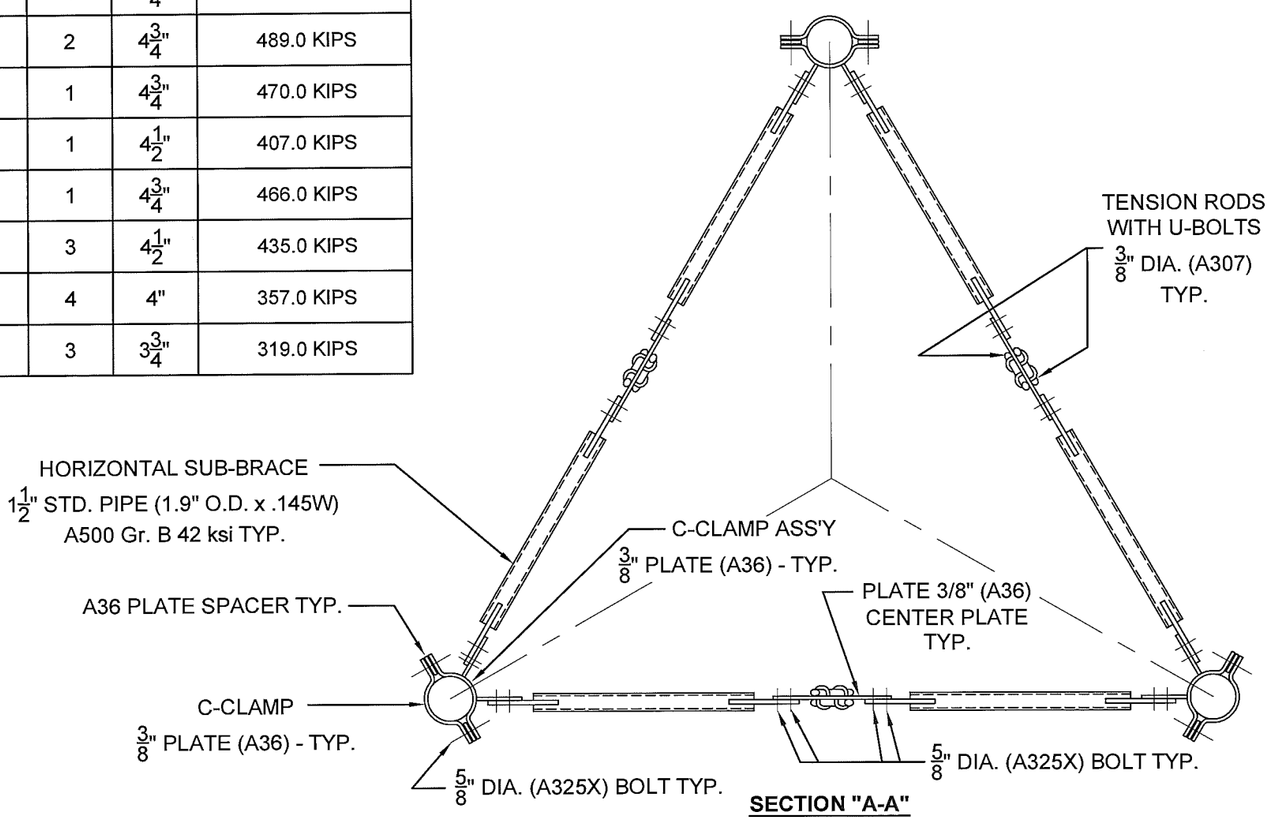
BASE ASSEMBLY SUB-BRACING DETAILS
NEW BRITAIN, CT

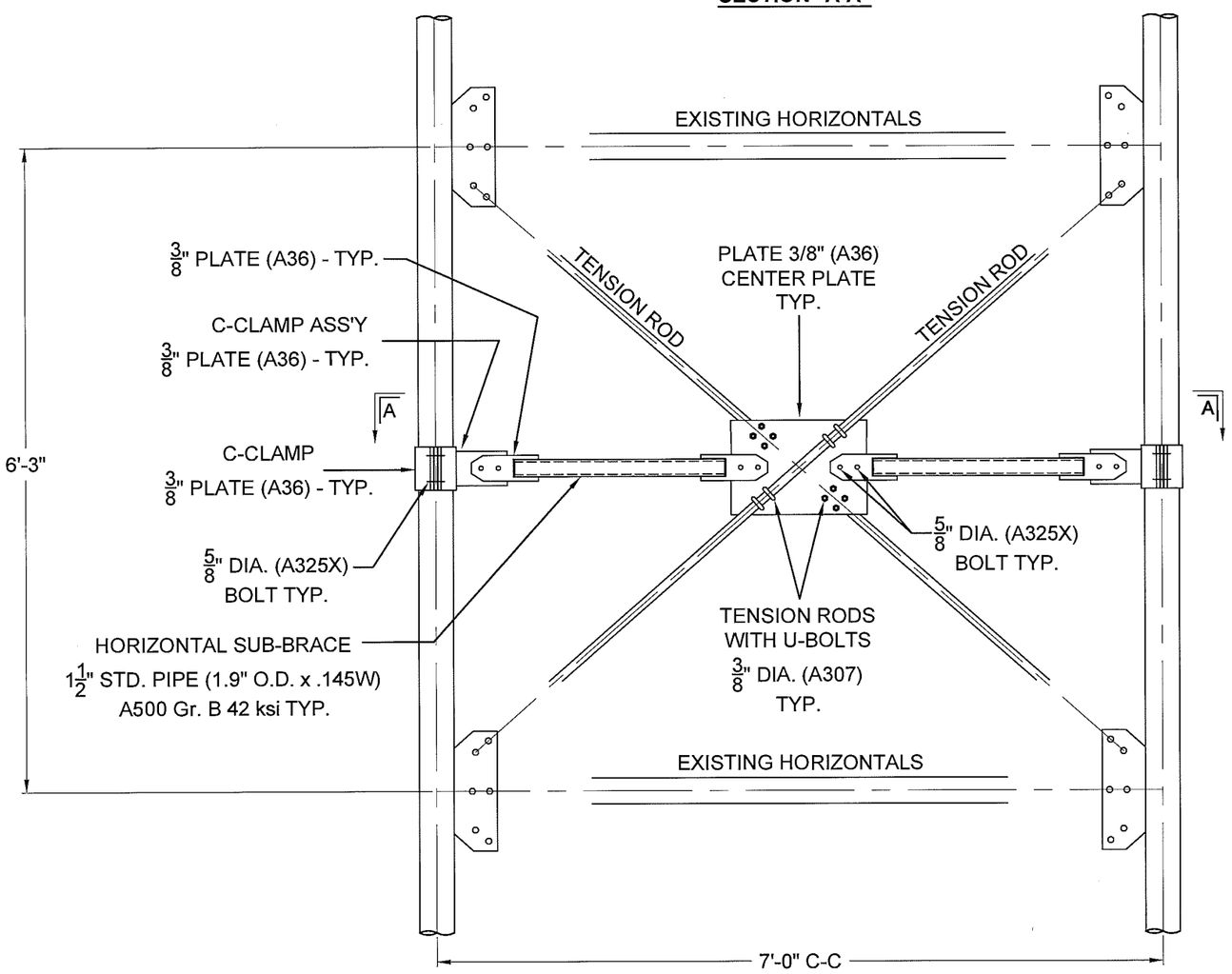
STATE OF CONNECTICUT
DENNIS D. ABICHT
No. 23247
LICENSED PROFESSIONAL ENGINEER
12-1-17

ELEVATIONS	# BAYS	LEG Ø	MAX. FACTORED COMPRESSION LEG LOADS
158.8' - 183.8'	4	$4\frac{3}{4}$"	483.0 KIPS
233.8' - 258.8'	4	$4\frac{3}{4}$"	489.0 KIPS
258.8' - 271.3'	2	$4\frac{3}{4}$"	489.0 KIPS
358.8' - 365.0'	1	$4\frac{3}{4}$"	470.0 KIPS
598.4' - 604.6'	1	$4\frac{1}{2}$"	407.0 KIPS
648.4' - 654.6'	1	$4\frac{3}{4}$"	466.0 KIPS
679.6' - 698.4'	3	$4\frac{1}{2}$"	435.0 KIPS
729.6' - 754.6'	4	4"	357.0 KIPS
760.9' - 779.6'	3	$3\frac{3}{4}$"	319.0 KIPS

NOTE: DESIGN SUB-BRACING CONNECTIONS PER ANSI/TIA 222-G BASED UPON THE MAXIMUM COMPRESSION LEG LOADS SHOWN.



SECTION "A-A"



ELEVATION VIEW

12-1-17

STATE OF CONNECTICUT · DENNIS D. CASE · No. 23247 · LICENSED PROFESSIONAL ENGINEER

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SUB-BRACING DETAILS
NEW BRITAIN, CT

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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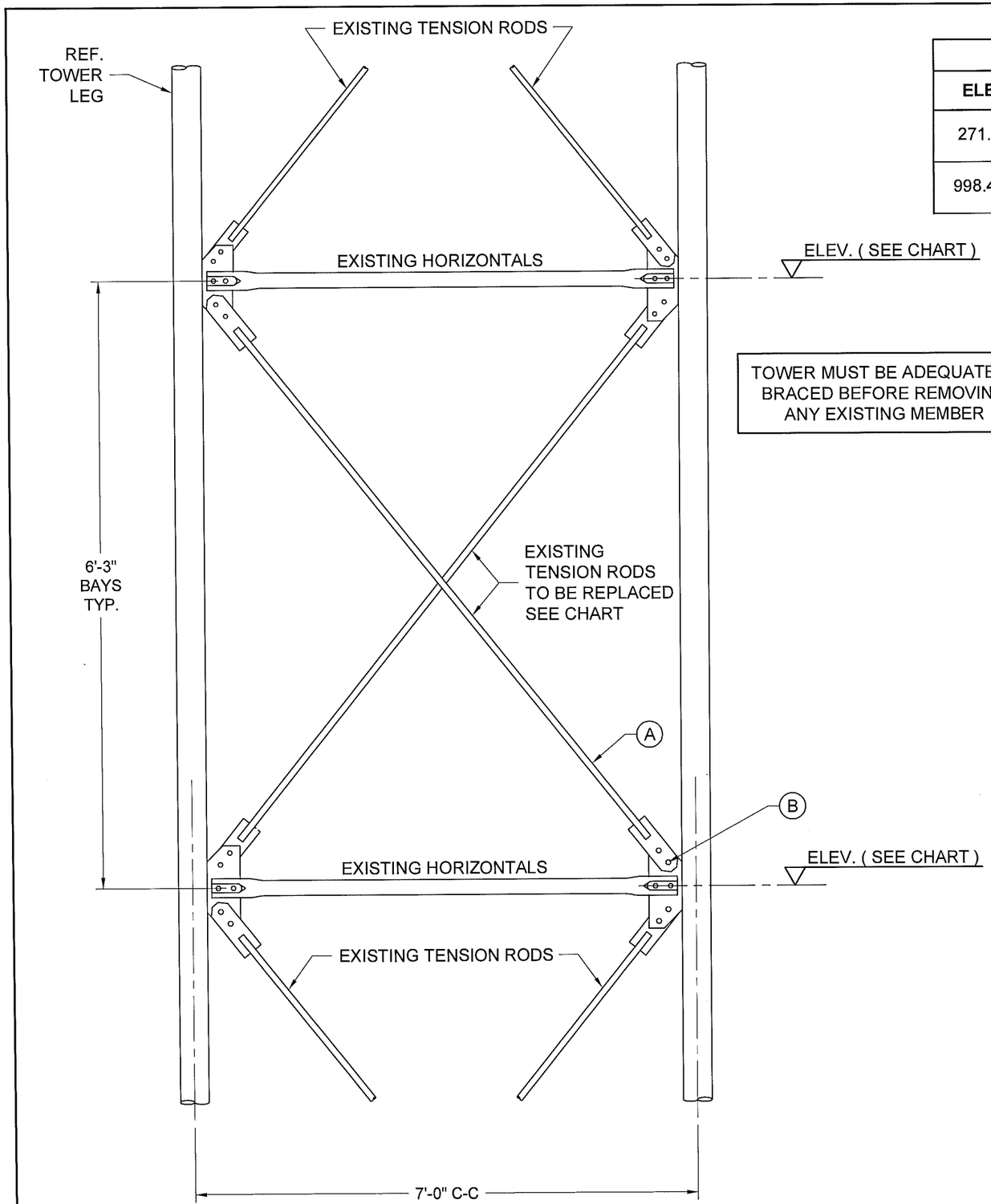
PREPARED BY	RE	11/8/17
CHECKED BY	GHO	11/28/17
ENGINEER REVIEW	PEC	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D05.02	



ELEVATION VIEW

DIAGONAL REPLACEMENTS

ELEVATION	BAYS	(A)	(B)	MAXIMUM FACTORED LOADS
271.3' - 290.0'	3	3/4" DIAMETER (A572 GRADE 50)	(2) 5/8" DIA. BOLTS (A325X)	19.88 KIPS SEE NOTE 2
998.4' - 1010.9'	2	3/4" DIAMETER (A572 GRADE 50)	(2) 5/8" DIA. BOLTS (A325X)	19.88 KIPS SEE NOTE 2

TOWER MUST BE ADEQUATELY BRACED BEFORE REMOVING ANY EXISTING MEMBER

NOTES:

1. REPLACE ONLY ONE TENSION ROD MEMBER ON ONE FACE AT A TIME.
2. DESIGN END PAD CONNECTIONS TO DEVELOP THE DESIGN TENSILE STRENGTH OF THE TENSION RODS PER ANSI/TIA 222-G.

PREPARED BY	11/8/17
CHECKED BY	RE
ENGINEER REVIEW	11/25/17
PROJECT NUMBER	11/30/17
DRAWING NUMBER	258114
	D05.03

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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DIAGONAL REPLACEMENT
NEW BRITAIN, CT

STATE OF CONNECTICUT
DENNIS D. ABU
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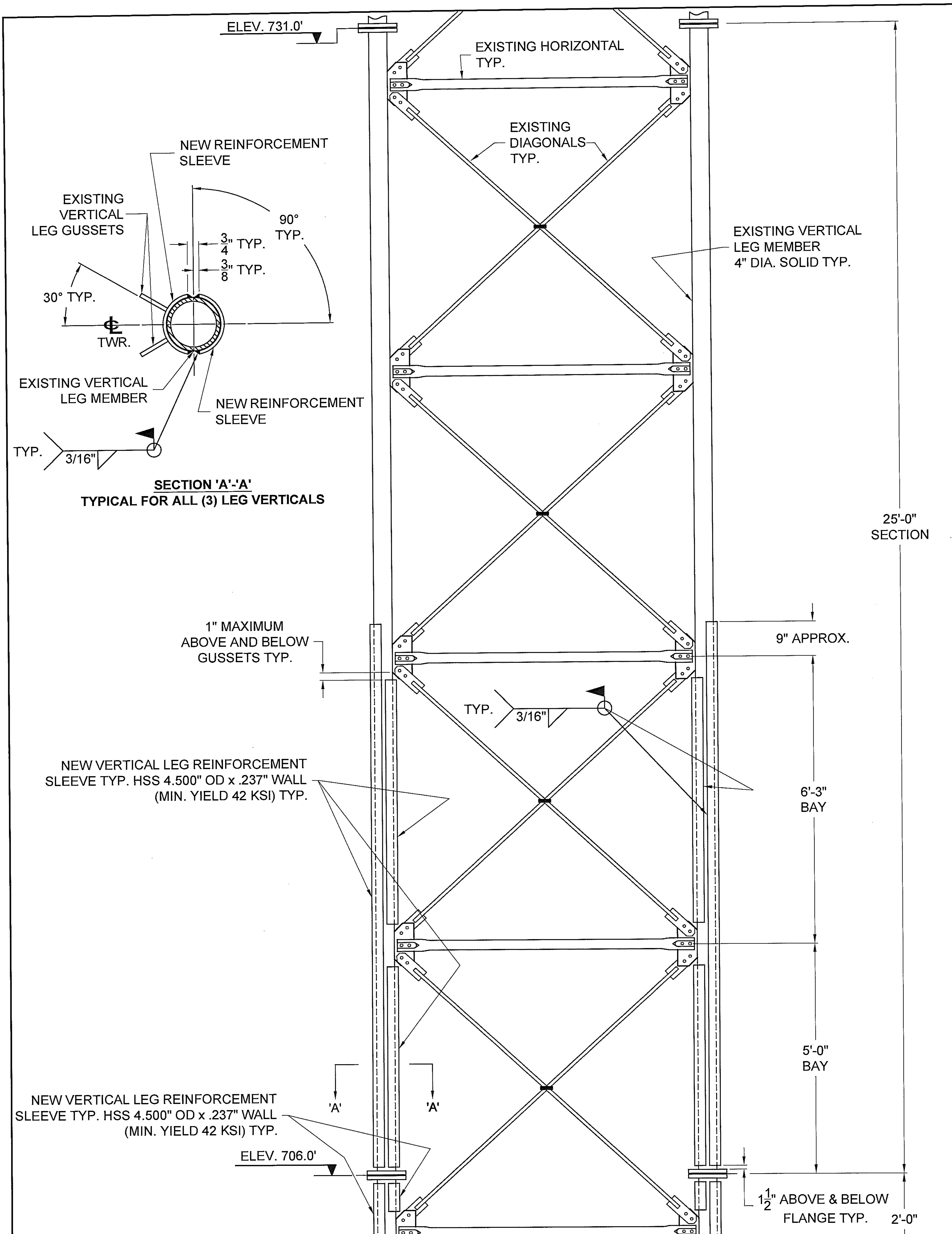
LICENSED PROFESSIONAL ENGINEER

12-1-17



ELEVATION VIEW TYPICAL FOR ALL (3) FACES
SEE TOWER PROFILE PAGE D04.00 FOR LOCATION AND PAGE D01.02 FOR WELDING NOTES

STATE OF CONNECTICUT
DENNIS D. ABEL
No. 23247
LICENSED
PROFESSIONAL ENGINEER
12-1-17

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VERTICAL LEG REINFORCEMENT DETAILS
NEW BRITAIN, CT

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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PREPARED BY	RE	11/8/17
CHECKED BY	GH	11/28/17
ENGINEER REVIEW	pec	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D05.04	

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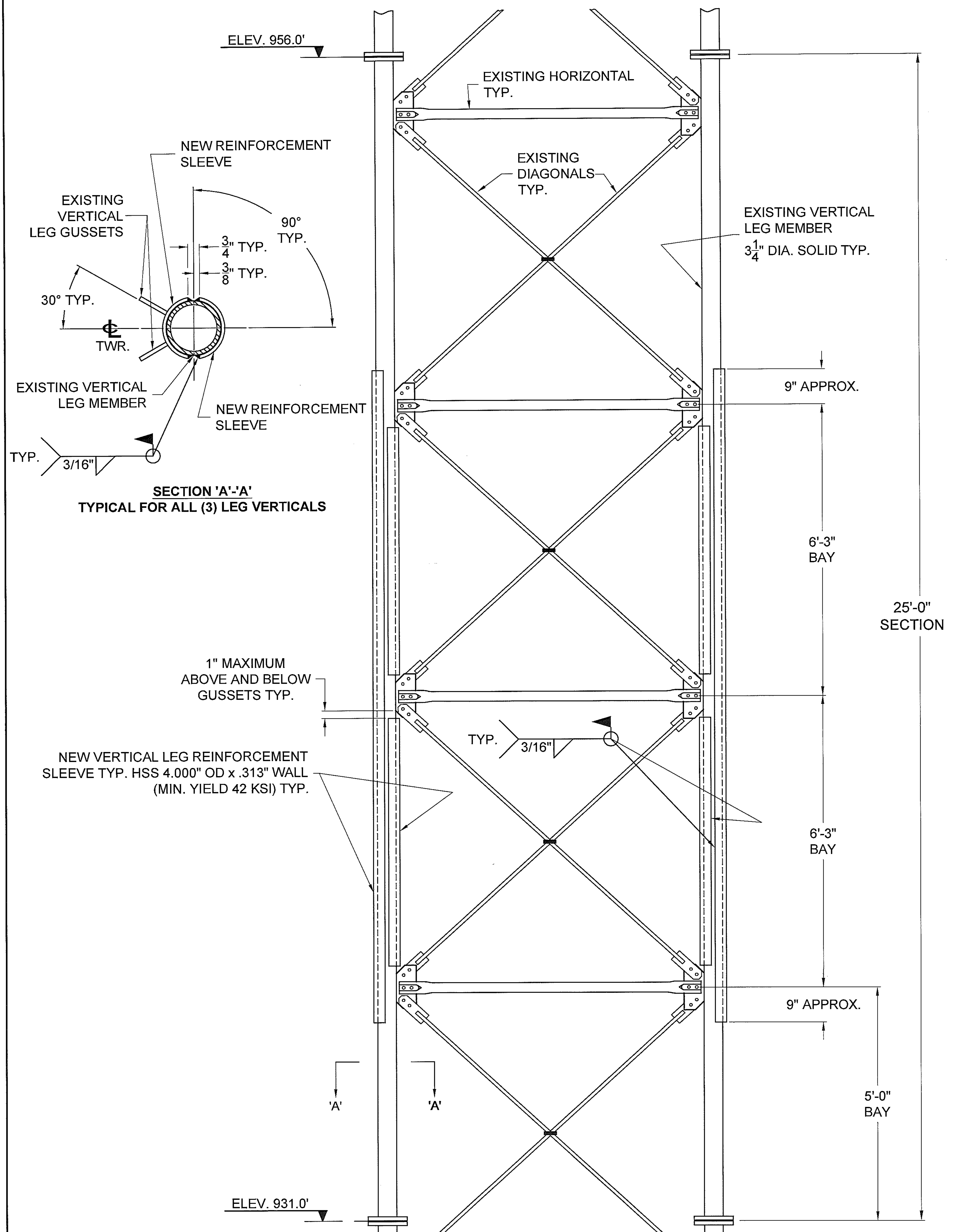

SECTION 'A'-'A'
TYPICAL FOR ALL (3) LEG VERTICALS

ELEVATION VIEW TYPICAL FOR ALL (3) FACES
SEE TOWER PROFILE PAGE D04.00 FOR LOCATION
AND PAGE D01.02 FOR WELDING NOTES

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VERTICAL LEG REINFORCEMENT DETAILS
NEW BRITAIN, CT

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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PREPARED BY	RE	11/8/17
CHECKED BY	GH	11/28/17
ENGINEER REVIEW	Pze	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D05.05	

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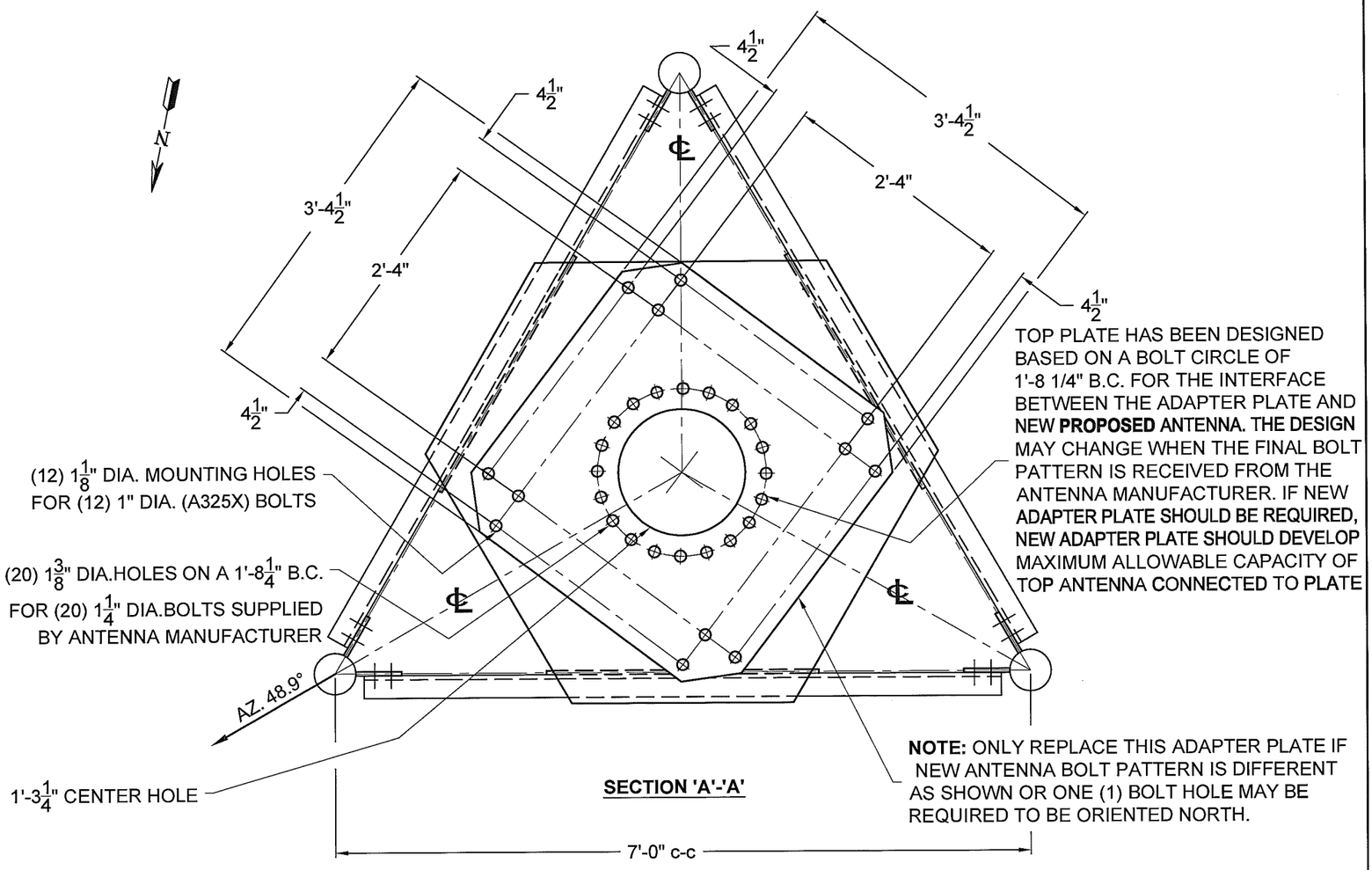
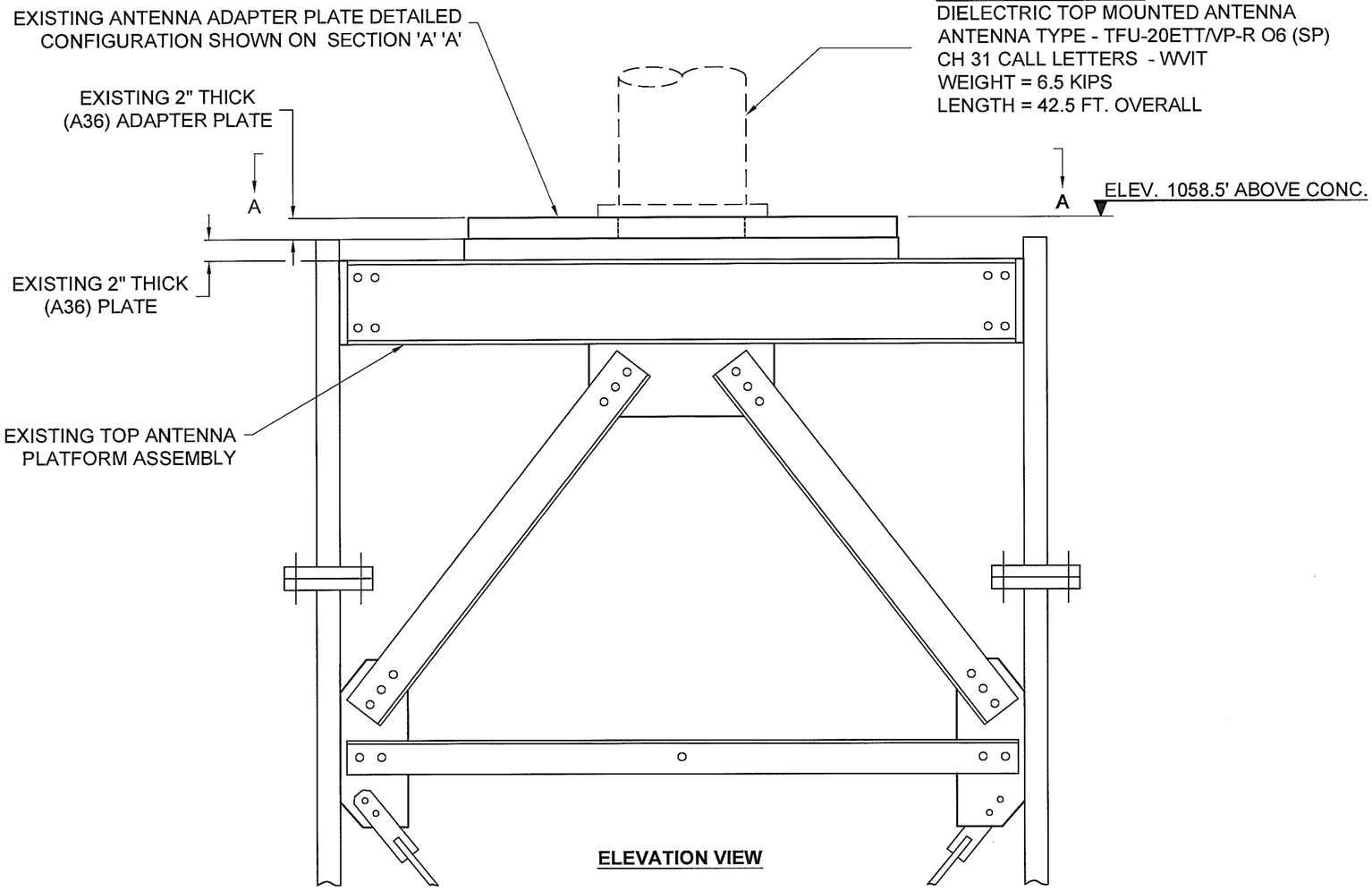


SECTION 'A'-'A'

TOP PLATE HAS BEEN DESIGNED BASED ON A BOLT CIRCLE OF 1'-8 1/4" B.C. FOR THE INTERFACE BETWEEN THE ADAPTER PLATE AND NEW **PROPOSED** ANTENNA. THE DESIGN MAY CHANGE WHEN THE FINAL BOLT PATTERN IS RECEIVED FROM THE ANTENNA MANUFACTURER. IF NEW ADAPTER PLATE SHOULD BE REQUIRED, NEW ADAPTER PLATE SHOULD DEVELOP MAXIMUM ALLOWABLE CAPACITY OF TOP ANTENNA CONNECTED TO PLATE

NOTE: ONLY REPLACE THIS ADAPTER PLATE IF NEW ANTENNA BOLT PATTERN IS DIFFERENT AS SHOWN OR ONE (1) BOLT HOLE MAY BE REQUIRED TO BE ORIENTED NORTH.

PROPOSED ANTENNA:
DIELECTRIC TOP MOUNTED ANTENNA
ANTENNA TYPE - TFU-20ETT/VP-R O6 (SP)
CH 31 CALL LETTERS - WVIT
WEIGHT = 6.5 KIPS
LENGTH = 42.5 FT. OVERALL



ELEVATION VIEW

STATE OF CONNECTICUT DENNIS D. PRATT No. 23247 LICENSED PROFESSIONAL ENGINEER
12-1-17

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TOP ANTENNA ADAPTER PLATE DETAILS
NEW BRITAIN, CT

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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PREPARED BY	RE	11/8/17
CHECKED BY	GH	11/28/17
ENGINEER REVIEW	PCC	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D05.06	

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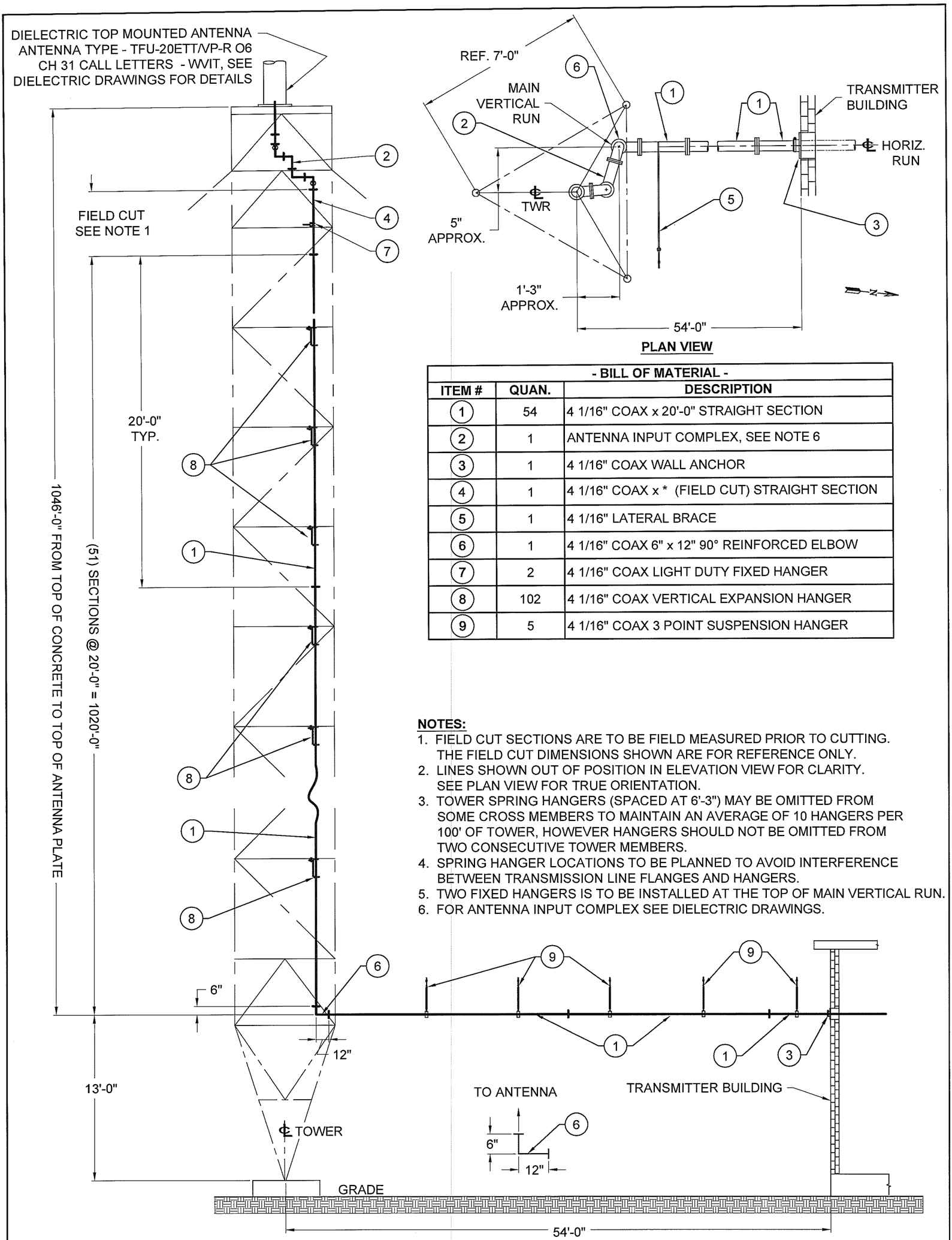

PLAN VIEW

ELEVATION VIEW

- BILL OF MATERIAL -		
ITEM #	**QUAN.**	**DESCRIPTION**
1	54	4 1/16" COAX x 20'-0" STRAIGHT SECTION
2	1	ANTENNA INPUT COMPLEX, SEE NOTE 6
3	1	4 1/16" COAX WALL ANCHOR
4	1	4 1/16" COAX x * (FIELD CUT) STRAIGHT SECTION
5	1	4 1/16" LATERAL BRACE
6	1	4 1/16" COAX 6" x 12" 90° REINFORCED ELBOW
7	2	4 1/16" COAX LIGHT DUTY FIXED HANGER
8	102	4 1/16" COAX VERTICAL EXPANSION HANGER
9	5	4 1/16" COAX 3 POINT SUSPENSION HANGER

NOTES:

1. FIELD CUT SECTIONS ARE TO BE FIELD MEASURED PRIOR TO CUTTING. THE FIELD CUT DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.
2. LINES SHOWN OUT OF POSITION IN ELEVATION VIEW FOR CLARITY. SEE PLAN VIEW FOR TRUE ORIENTATION.
3. TOWER SPRING HANGERS (SPACED AT 6'-3") MAY BE OMITTED FROM SOME CROSS MEMBERS TO MAINTAIN AN AVERAGE OF 10 HANGERS PER 100' OF TOWER, HOWEVER HANGERS SHOULD NOT BE OMITTED FROM TWO CONSECUTIVE TOWER MEMBERS.
4. SPRING HANGER LOCATIONS TO BE PLANNED TO AVOID INTERFERENCE BETWEEN TRANSMISSION LINE FLANGES AND HANGERS.
5. TWO FIXED HANGERS IS TO BE INSTALLED AT THE TOP OF MAIN VERTICAL RUN.
6. FOR ANTENNA INPUT COMPLEX SEE DIELECTRIC DRAWINGS.

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COAX ARRANGEMENT - WVIT - CH 31
NEW BRITAIN, CT

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE
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PREPARED BY	RE	11/8/17
CHECKED BY	GH	11/28/17
ENGINEER REVIEW	PEC	11/30/17
PROJECT NUMBER	258114	
DRAWING NUMBER	D06.00	

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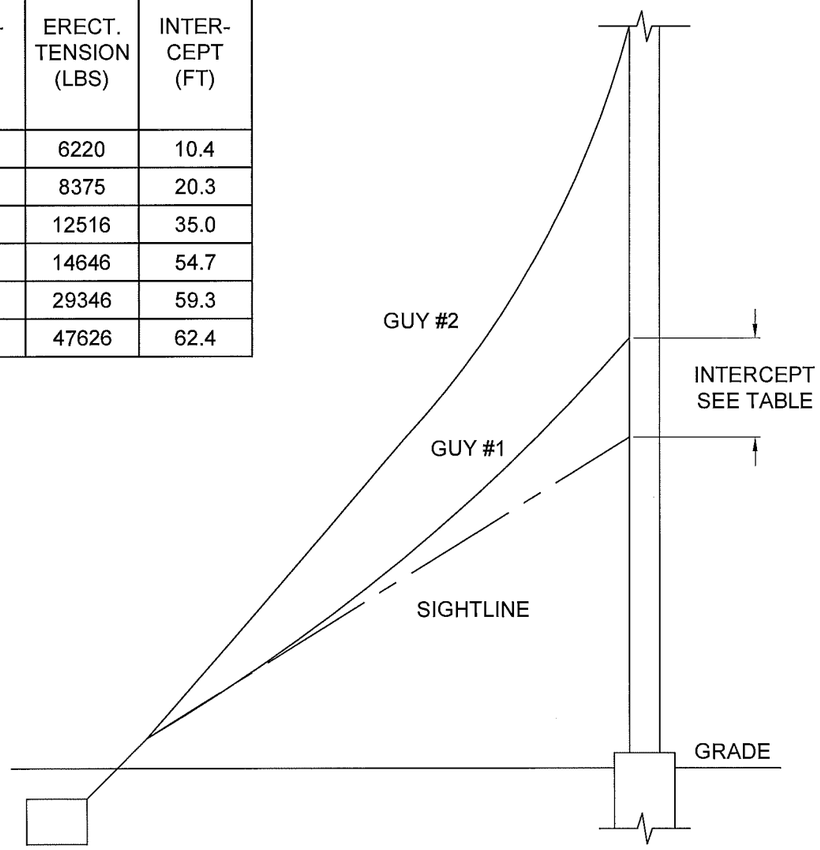
	0 DEG. F		20 DEG. F		40 DEG. F		60 DEG. F		80 DEG. F		100 DEG. F	
	ERECT. TENSION (LBS)	INTER-CEPT (FT)	ERECT. TENSION (LBS)	INTER-CEPT (FT)	ERECT. TENSION (LBS)	INTER-CEPT (FT)	ERECT. TENSION (LBS)	INTER-CEPT (FT)	ERECT. TENSION (LBS)	INTER-CEPT (FT)	ERECT. TENSION (LBS)	INTER-CEPT (FT)
1A	10451	6.2	9522	6.9	8616	7.6	7760	8.4	6958	9.3	6220	10.4
2A	11499	14.9	10815	15.8	10154	16.8	9520	17.9	8934	19.1	8375	20.3
3A	14913	29.7	14410	30.6	13915	31.7	13420	32.8	12968	33.9	12516	35.0
4A	16544	48.8	16151	49.9	15758	51.0	15360	52.3	15011	53.4	14646	54.7
5A	31608	55.3	31143	56.1	30678	56.9	30200	57.7	29780	58.5	29346	59.3
6A	49621	60.0	49222	60.5	48823	60.9	48360	61.5	48025	61.9	47626	62.4



ELEVATION VIEW

NOTES:

1. DURING THE INITIAL GUY TENSIONING PROCEDURES AND AT THE TIME OF INSPECTION, THE GUY TENSIONS AND/OR INTERCEPTS SHOULD BE IN ACCORDANCE WITH THE VALUES SHOWN ABOVE. USE THE TEMPERATURE WHICH ACTUALLY EXISTS AT THE TIME THE TENSION IS BEING CHECKED. FOR TEMPERATURES OTHER THAN THOSE SHOWN ABOVE, INTERPOLATE OR EXTRAPOLATE OTHER VALUES.
2. TOWER PLUMBING AND INITIAL TENSIONING OF GUYS SHOULD BE DONE ONLY IN CALM WEATHER AND WITH NO ICE ON GUYS.
3. USE INTERCEPTS AND TENSIONS IN GUY DIRECTION "A" ONLY.
4. GUY #1 IS BOTTOM GUY; GUY #2 IS NEXT, ETC.
5. USE SIGHT BAR FOR DETERMINING GUY INTERCEPTS.
6. TENSION AND/OR INTERCEPT TOLERANCES +/- 5%.

PREPARED BY	11/8/17
CHECKED BY	GA 11/28/17
ENGINEER REVIEW	Pce 11/30/17
PROJECT NUMBER	258114
DRAWING NUMBER	D08.00

REV	BY	DATE	REVISION DESCRIPTION	D.CK	DATE	E.CK	DATE

K:\258114\Dwg\258114_E08.00.dwg

STAINLESS®

A BUSINESS OF FDH VELOCITEL
200 North Warner Road, Suite 215
King of Prussia, PA 19406

INTERCEPTS & ERECTION TENSIONS

NEW BRITAIN, CT

STATE OF CONNECTICUT
DENNIS D. ABLE
No. 23247
LICENSED PROFESSIONAL ENGINEER

12-1-17

Attachment 1

TFU-20ETT/VP-R O6

Proposal Number:	□-7□2□□-7
Date:	□□-□□□-□7
Customer:	□□□ □□□□r□□□
Location:	□□□ □r□□□□□□

Electrical Specifications

Polarization	□□□□□□□		
Azimuth Pattern	□□ □□		
Antenna Input	□-□□□"	7□ □ □□	□□□□ □ □
VSWR	□ □□□□□□	□□□□ □□	
Bandwidth	□M□□		
Rated Input Power	□□ □□	□□□□□ d□□□ M□□□□ □□	□□r□□□ □□□□r

Mechanical Specifications

Mounting	Bottom of a Stack			
Environmental Protection	□□□□ □d□□ □			
Height	□□□□ □□□□□□ □			
Weight	□□□□ □ □□□			
Effective Projected Area	□27 □□□□ □□	□□-222-□	**Basic Wind Speed**	97 m/h (156.1 km/h)

Channel Specifications

Call	CH	Freq	Hpol ERP	Vpol ERP	TPO	RMS Main Lobe Hpol Gain	RMS Main Lobe Vpol Gain	RMS at Horizontal Hpol Gain	RMS at Horizontal Vpol Gain
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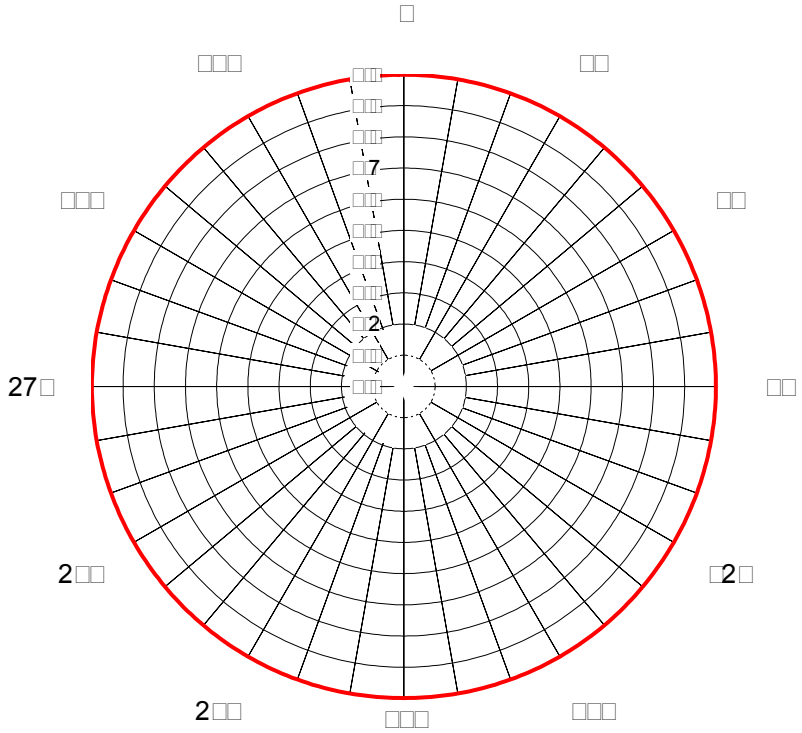
Dielectric®



AZIMUTH PATTERN
Horizontal Polarization

	C-70211-7
	15-Feb-17
	WVIT 31
	575 MHz
	TFU-20ETT/VP-R O6
	1 (0dB)
	Calculated
	+/- 1.0 dB

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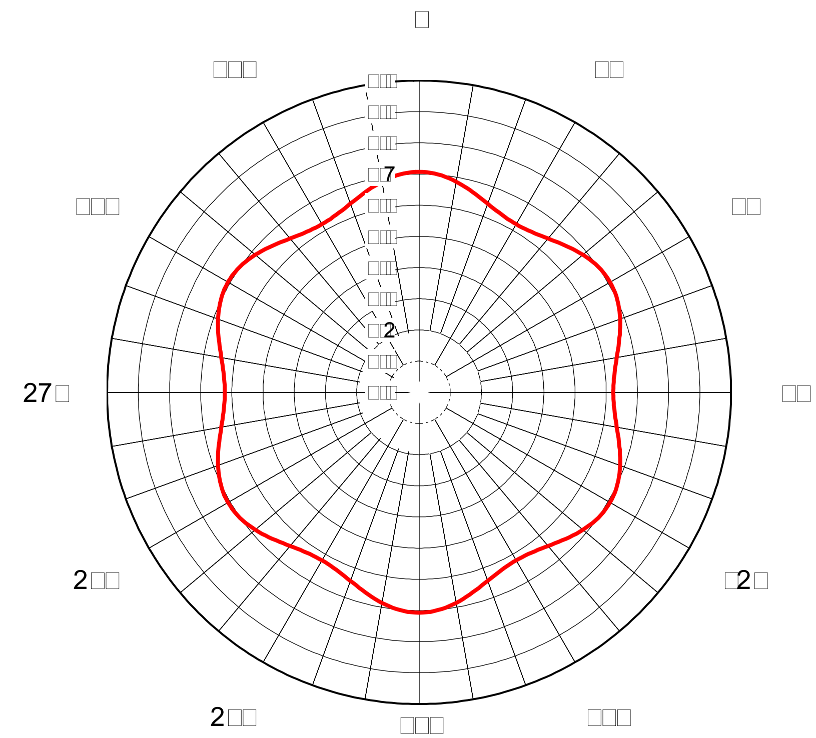

AZIMUTH PATTERN
Vertical Polarization

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□r□□□□□□	575 MHz
□□□□□□ □□□□	TFU-20ETT/VP-R O6
□ □□	1.13 (0.53dB)
	Calculated
□r□□□r□□	+/- 1.0 dB

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
□	□□7□7	□□	□□□□□	72	□□□7□	□□□	□□□7□	□□□	□□□□□	□□□	□□7□7	2□□	□□□□□	2□2	□□□7□	2□□	□□□7□	□2□	□□□□□
□	□□7□7	□7	□□□□□	7□	□□□7□	□□□	□□□□2	□□□	□□□2□	□□□	□□7□7	2□7	□□□□□	2□□	□□□7□	2□□	□□□□2	□2□	□□□2□
2	□□7□□	□□	□□□□□	7□	□□□□□	□□□	□□□□□	□□□	□□□2□	□□2	□□7□□	2□□	□□□□□	2□□	□□□□□	2□□	□□□□□	□2□	□□□2□
□	□□7□□	□□	□□□□□	7□	□□□□□	□□□	□□□□□	□□7	□□□2□	□□□	□□7□□	2□□	□□□□□	2□□	□□□□□	2□□	□□□□□	□27	□□□2□
□	□□7□□	□□	□□□□□	7□	□□□□□	□□2	□□□□□	□□□	□□□2□	□□□	□□7□□	22□	□□□□□	2□□	□□□□□	2□2	□□□□□	□2□	□□□2□
□	□□7□□	□□	□□□□□	77	□□□□□	□□□	□□□□□	□□□	□□□2□	□□□	□□7□□	22□	□□□□□	2□7	□□□□□	2□□	□□□□□	□2□	□□□2□
□	□□□□□	□2	□□□□2	7□	□□□□2	□□□	□□□□□	□□□	□□□2□	□□□	□□□□□	222	□□□□2	2□□	□□□□2	2□□	□□□□□	□□□	□□□2□
7	□□□□□	□□	□□□□□	7□	□□□□□	□□□	□□7□□	□□□	□□□2□	□□7	□□□□□	22□	□□□□□	2□□	□□□□□	2□□	□□7□□	□□□	□□□2□
□	□□□□□	□□	□□□□□	□□	□□□□□	□□□	□□7□□	□□2	□□□2□	□□□	□□□□□	22□	□□□□□	2□□	□□□□□	2□□	□□7□□	□□2	□□□2□
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□□	□□□□2	□7	□□□7□	□□	□□□□□	□□□	□□7□7	□□□	□□□2□	□□□	□□□□2	227	□□□7□	2□□	□□□□□	2□□	□□7□7	□□□	□□□2□
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□□	□□□7□	□□	□□□□2	□□	□□□2□	□2□	□□7□7	□□7	□□□□□	□□□	□□□7□	22□	□□□□2	2□□	□□□2□	□□□	□□7□7	□□7	□□□□□
□□	□□□□□	□□	□□□□□	□□	□□□2□	□22	□□7□□	□□□	□□□□□	□□□	□□□□□	2□□	□□□□□	2□□	□□□2□	□□2	□□7□□	□□□	□□□□□
□□	□□□□□	□□	□□□□□	□7	□□□2□	□2□	□□7□□	□□□	□□□□□	□□□	□□□□□	2□□	□□□□□	2□7	□□□2□	□□□	□□7□□	□□□	□□□□□
□□	□□□□□	□2	□□□□□	□□	□□□2□	□2□	□□7□□	□□□	□□□□□	□□□	□□□□□	2□2	□□□□□	2□□	□□□2□	□□□	□□7□□	□□□	□□□□□
□7	□□□□□	□□	□□□□□	□□	□□□2□	□2□	□□7□□	□□□	□□□□□	□□7	□□□□□	2□□	□□□□□	2□□	□□□2□	□□□	□□7□□	□□□	□□□□□
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□□	□□□□□	□□	□□7□□	□□	□□□2□	□27	□□□□□	□□□	□□□□□	□□□	□□□□□	2□□	□□7□□	27□	□□□2□	□□7	□□□□□	□□□	□□□□□
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2□	□□□□□	□□	□□7□7	□□	□□□2□	□□□	□□□□2	□□7	□□□7□	2□□	□□□□□	2□□	□□7□7	27□	□□□2□	□□□	□□□□2	□□7	□□□7□
2□	□□□□□	□□	□□7□7	□□	□□□□□	□□2	□□□7□	□□□	□□□7□	2□□	□□□□□	2□□	□□7□7	27□	□□□□□	□□2	□□□7□	□□□	□□□7□
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□2	□□□2□	□□	□□□□□	□□□	□□□□□	□□□	□□□□□	□7□	□□7□□	2□2	□□□2□	2□□	□□□□□	2□□	□□□□□	□2□	□□□□□	□□□	□□7□□
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□□	□□□2□	7□	□□□□2	□□7	□□□7□	□□□	□□□□□	□7□	□□7□7	2□□	□□□2□	2□□	□□□□2	2□7	□□□7□	□2□	□□□□□	□□□	□□7□7

□□□d□□□□ □□□□□□□□□□ □r□r□□r□ □□d □□□□d□□□□□□□□r□ □□□□ □□□ □□□□r□□□□□ □□ □□ □□□d □□□□□ □r □□□ □□r□□□□ □r □ □□□ □□□ □r□□d□d□ □□
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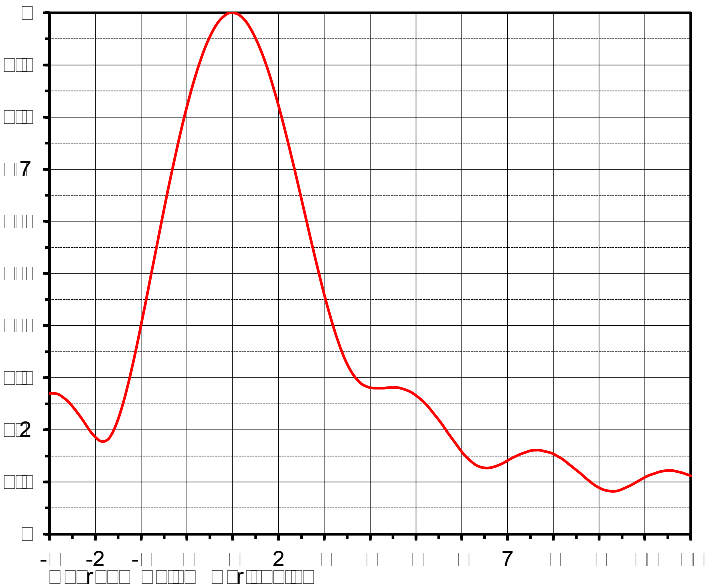
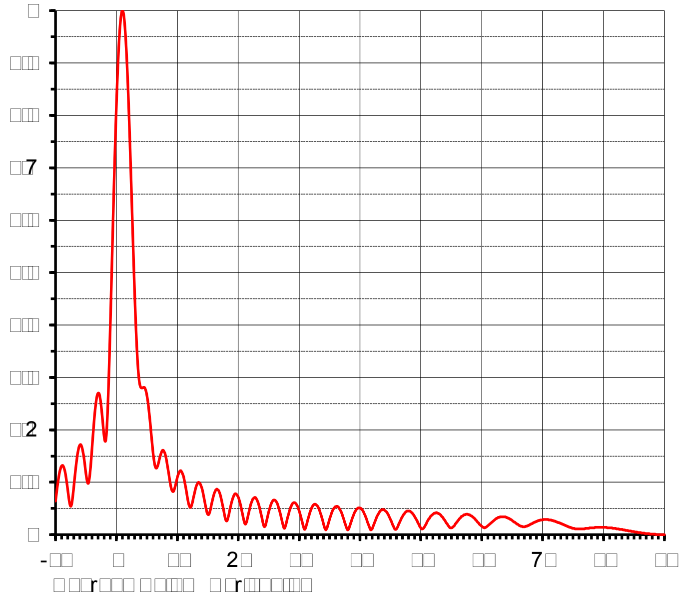
ELEVATION PATTERN

□r□□□□□□□ □□	C-70211-7
□ □□	15-Feb-17
□ □□□□□□r□	WVIT 31
□r□□□□□□□	575 MHz
□□□□□□ □□□□	TFU-20ETT/VP-R O6

□M□ □r□□□□□□ □□M□□ □□□□	19.60 (12.92 dB)	□□□□ □□□	1.00 deg
□M□ □r□□□□□□ □□□ □r□□□□□□	13.20 (11.21 dB)	□r□□ □□ □□□ □□r	20E196100
	Calculated		





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
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-□□	□□□□	□2□	□□□□	□2□	□□□□	□2□	□□□□	72□	□□2□
-7□	□□□□	□□□	□□□□	□□□	□□□□	□□□	□□□□	7□□	□□2□
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-□□	□□□□	□□□	□□7□	□□□	□□□□	□□□	□□2□	7□□	□□□□
-□□	□27□	□7□	□□7□	□7□	□□□□	□7□	□□□7	77□	□□□2
-2□	□□□□	□□□	□□27	□□□	□□□□	□□□	□□□□	7□□	□□□□
-□□	□□□2	□□□	□□□□	□□□	□□□□	□□□	□□2□	7□□	□□□□
□□	□□2□	2□□	□□72	□□□	□□□□	□□□	□□□□	□□□	□□□□
□□	□□□□	2□□	□□2□	□□□	□□□2	□□□	□□□7	□□□	□□□□
2□	□□22	22□	□□□□	□2□	□□□□	□2□	□□27	□2□	□□□2
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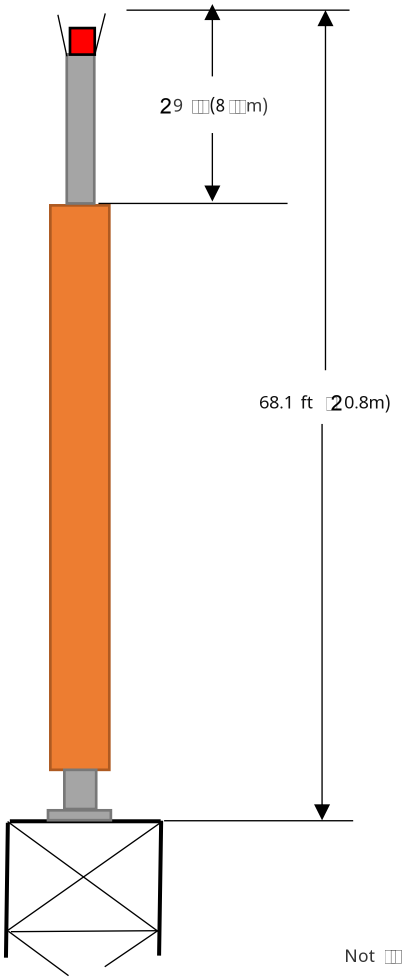

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MECHANICALS

P roposal No.	**C-70211-7**
Date	**15-Feb-17**
Ca □l Lette r s	**WVIT** **31**
F reque □cy	**575 MHz**
Antenna Type	**TFU-20ETT/VP-R O6**

P relimina r y Specifications

Top Mounted

Mechanical Specification without ice TIA-222-G

Height AGL(z)	105 7□4 □□(3 22.3 m)
Basic Wind Speed	97 m/h (156.1 km/h)
Structure Class	II
Exposure Category	C
Topography Category	1

Mechanical Specifications with ice TIA-222-G

Design □ce	1 in	t_{iz} = 2□□0 □□
Win d Spe □d w□ce	50 m/h (80 □□ km □□)	

Mechanical Specifications		**without ice**	**with ice**	**full stack**	**full stack with ice**
Hei □ht with L □gh □□ing P r otect □r	H4			68. □ □□□20.8m)	
Hei □ht less Lightn □ng P rotecto r	H2	39.1 ft □□1.9m)		64. □ □□□19.5m)	
Hei □ht of Cent □r of □□d□□□□□□	H3	19.55 □□(6m)		19. □5 ft (6m)	
E □ective P r oject □d Ar ea	(EPA) S	42□7 □□□(4m²)	107□2 □□² (10m²)	61.1 ft² (5 □7m²)	190.5 ft² (□7□7m²)
M oment A r m	D1	19 □5 □□(5 □9m)	19.5 □□(5.9m)	29.1 ft (8.9m)	□2.6 ft □□.9m)

We □ght	w	6600 □□ (□t)	10600 lb (4 □□t □	□750 lb □□t □	1□700 □□ (6 □2□□

Antenna d esi □ne d □□ acco r dance with A □SC speci ications □□r d es □gn of structu r al steel as □r□□□r□□□d by TI □-222-G

Prepared by: KLP **Date:** 15-Fe □-□7 **ME:** SPJC **EE:**

Rev. No.7 by: SPJC **Date:** 2-Fe □-18

Summary

[illegible]	C-70211-7
[illegible]	15-Feb-17
[illegible]	WVIT 31
[illegible]	575 MHz
[illegible]	TFU-20ETT/VP-R O6

Antenna

	Hpol		Vpol	
ERP:	**374.0 kW**	**(25.73 dBk)**	**187.0 kW**	**(22.72 dBk)**
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Antenna Input Power

28.6 kW (14.57 dBk)

Transmission Line

[illegible]

Transmitter Output

38.0 kW (15.80 dBk)

[illegible]

[illegible]

Attachment 2

STAINLESS

A BUSINESS OF FDH VELOCITEL

REPORT 258113

DATE: 5/12/2017

RIGOROUS STRUCTURAL ANALYSIS

FOR A 1057’ STEEL HEIGHT G-7 GUYED TOWER

NEW BRITAIN, CT

PREPARED BY: AP APPROVED: DDA

CHECKED BY: PCC

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[illegible]2[illegible]7	2-7	[illegible] [illegible] [illegible]d [illegible] [illegible] [illegible]

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SECTION PAGE

APPENDIX

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A. AUTHORIZATION/PURPOSE

As authorized by Joe DiMaggio of WVIT-TV, a structural analysis was performed to investigate the adequacy of a 1057' steel height Stainless G-7 guyed tower near New Britain, Connecticut to support specified equipment.

B. TOWER HISTORY

The tower was originally designed and furnished in 1976 by Stainless, Inc. It was designed in accordance with EIA Standard RS-222-C for a wind load rating of 50 psf with no ice, 40 psf with 1/2" of radial ice, and 30 psf with 1" of radial ice while supporting the following equipment:

1. One (1) top mounted RCA Channel 30 Zee panel antenna with radome, fed by one (1) 8-3/16" rigid coax.
2. Two (2) 8'x12' reflectors at the first and second guy levels.
3. One (1) high intensity strobe lighting system for the full height of the tower.
4. One (1) inside climbing ladder for the full height of the tower.

In December 1978, the tower was extended to 1057' per Stainless Inc. Report 258102. The extended tower was designed to support the following:

1. One (1) top mounted RCA TFU 28G Channel 30 antenna, fed by one (1) 8-3/16" rigid coax.
2. Two (2) 8'x12' reflectors at the first and second guy levels.
3. One (1) high intensity strobe lighting system for the full height of the tower.
4. One (1) inside climbing ladder for the full height of the tower.

- In 2004, the tower was modified by Stainless LLC per Report 258108. The modifications consisted of the following:
  - Replaced Levels 5 and 6 (topmost) guys with new, higher capacity guys.
  - Adjusted initial tensions in all guy levels.
  - Replaced existing diagonals with new, higher capacity members at the following bay:

Location	No of bays
1035.9' – 1010.9'	4
910.9' – 842.1'	11
517.1' – 511.5'	1

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- Replaced existing horizontals with new, higher capacity members at the following levels:

Location	No of levels
1023.4’	1
885.9’ – 848.4’	7
842.1’	1

- Installed additional horizontal sub-bracing at the midpoints of the following bays:

Location	No of bays
1023.4’ – 879.6’	23
860.9’ – 779.6’	13
760.9’ – 754.6’	1
729.6’ – 704.6’	4
679.6’ – 654.6’	4
629.6’ – 604.6’	4
560.9’ – 554.6’	1
508.8’ – 496.3’	2
490.0’ – 433.8’	9
358.8’ – 271.3’	14
233.8’ – 208.8’	4
158.8’ – 108.8’	8
15.0’ – 33.8’	3

C. CONDITION INVESTIGATED

The analysis was performed for the tower supporting equipment based upon the following sources:

- Stainless Proposal P16_2581_001 dated 10/28/2016.
- Stainless LLC Report 258110 dated 6/4/2003.
- Stainless LLC Report 258108 dated March 2002.
- Email from Rick Smart of Dielectric dated 3/17/2017 with mechanical specifications for the proposed top antenna.
- Equipment schedule WVIT Stainless G-7 Tower 2016, undated.
- Emails from Joe DiMaggio of WVIT dated 11/2, 11/18, and 11/23/2016 with details of existing tower loading.
- Email from Joe DiMaggio dated 6/15/2017 with details of original tower geotechnical design information.
- Email from Joe DiMaggio dated 6/27/2017 with details of final tower loading condition.
- Email from David Shepeard of Drake Lighting dated 6/28/2017 with details of TechnoStrobe high intensity LED lighting system.

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APPURTENANCE	ELEVATION, ft.	FEED LINES
TFU-22GTH/VP-R 4C140	1025	4-1/16" rigid
Proscan III ENG	1020	1-5/8" & 1" control cable
Outside transfer platform	1000	--
Station Master omni	520	7/8"
8' x 9' ice shield	360	--
PA4-65 dish/radome	350	WEP65
ENGensis ENG	335	7/8" & 1" control cable
DB-408 omni	330	7/8"
PA4-65 dish/radome	320	WEP65
Diamond X-50A omni	140	7/8"
6' x 7' ice shield	110	--
PA6-65 dish/radome	100	WEP65
Ladder with cable safety device	Full height of tower	3/8" safety cable
Proposed equipment:		
TFU-20ETT/VP-R O6 (NB: replaces existing TFU-28G)	**Tower top**	**6-1/8" rigid (NB: replaces existing 8-3/16" rigid)**
Step down transformer	**945**	**--**
(3) 3' x 4' ice shields	**945**	**--**
(6) ENGensis panel antennas (3) ENGensis radios	**940**	**1/2" fiber 1-1/4" conduit (existing)**
TechnoStrobe LED lighting system (NB: replaces existing strobes)	**Full height of tower**	**Armored cable, diameters vary up the tower**

The transmission line arrangement was based upon Stainless LLC Report 258110 dated 6/4/2003. Lines with unknown locations on the cross section are conservatively assumed to be fully exposed to wind. The locations of all existing and proposed transmission lines are shown on page A-2 of the report. Deviating from this arrangement may invalidate the results of the analysis presented in this report.

D. LOADS AND STRESSES

The analysis was performed using the following design parameters in accordance with the 2016 Connecticut State Building Code and ANSI/TIA 222-G-2005, Structural Standard for Antenna Supporting Structures and Antennas, including Addenda 1 and 2 dated 2007 and 2009 respectively:

- Risk Category II
- 125 mph ultimate design wind speed with no ice
- 50 mph nominal design wind speed with 1" design ice thickness
- Exposure Category B
- Topographic Category 5 (Flat topped hill, H=220', L=1670', x=0')
- 0.18 earthquake spectral response acceleration at short periods (S_s)
- Earthquake Site Class D

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The ultimate design wind speed is converted to a nominal design wind speed for use in ANSI/TIA 222-G based upon the following formula:

$V_{asd} = V_{ult} * (0.6)^{1/2}$
$= 125 * (0.6)^{1/2}$
$= 97$ mph

Seismic effects need not be considered as the value of Ss is less than 1.0 per Section 2.7.3 of ANSI/TIA 222-G. Load and resistance factors used to evaluate the adequacy of the structure were in accordance with ANSI/TIA 222-G.

E. METHOD OF ANALYSIS

The analysis was performed using tnxTower, a computerized program which idealizes the tower as a structure consisting of finite elements, and subjected to simultaneous transverse and axial loads.

F. RESULTS

The results of the analysis show the following ratings:

COMPONENT	SPAN	RATING %
Tower top	--	30
Leg compression	Cantilever	33
	6	105
	5	**154**
	4	105
	3	92
	2	103
	1	103
Leg tension	Cantilever	30
	6	46
	5	11
	4	--
	3	--
	2	--
	1	--
Diagonals	Cantilever	52
	6	105
	5	87
	4	80
	3	88
	2	**107**
	1	92

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Horizontals	Cantilever	52
	6	93
	5	87
	4	65
	3	62
	2	69
	1	67
Guys	6	87
	5	82
	4	86
	3	75
	2	72
	1	70
Foundations	Tower base	**147**
	Inner anchors	94
	Outer anchors	46

The rating is defined as the percentage of the component design capacity that is used up in supporting itself and the loading from the antennas and transmission lines under the design wind and ice loading conditions. Ratings of up to 105% are considered acceptable due to tolerances in calculating the applied loads on the tower as well as component design capacities.

A second set of tower and foundation modifications have also been shown in the following section for a maximum acceptance rating of 100%.

Foundations have been reviewed based upon the original geotechnical information dated 7/19/1976 and 4/23/1979 by Clarence Welti Associates, Inc., and a geotechnical report dated 19/1/199 by Haley and Aldrich, Inc. for an adjacent tower site.

G. CONCLUSIONS AND RECOMMENDATIONS

Based on the preceding results, the following conclusions may be drawn:

1. The tower, supporting the equipment as specified in section C of this report, is not adequate to achieve an ultimate design wind speed of 125 mph with no ice, and 50 mph nominal design wind speed with 1” design ice thickness in accordance with the 2016 Connecticut State Building Code, and ANSI/TIA 222-G with the analysis parameters of Section D.
2. In order for the tower to achieve an ultimate design wind speed of 125 mph with no ice, and 50 mph nominal design wind speed with 1” design ice thickness in accordance with the 2016 Connecticut State Building Code, and ANSI/TIA 222-G with the analysis parameters of Section D for a maximum rating of 105%, the following modifications are required:

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a. Strengthen the tower base. It is assumed there are no physical obstructions preventing the tower base remediation.
b. Adjust the initial tension in all guy levels.
c. Install additional horizontal sub-bracing at the midpoints of the following bays:

Location	No. of bays
779.6’ – 760.9’	3
754.6’ – 729.6’	4
692.1’ – 679.6’	2
271.3’ – 265.0’	1

d. Replace the existing diagonal braces at the following locations with higher capacity members:

Location	No. of bays
1010.9’ – 998.4’	2
290.0’ – 277.5’	2

3. In order for the tower to achieve an ultimate design wind speed of 125 mph with no ice, and 50 mph nominal design wind speed with 1” design ice thickness in accordance with the 2016 Connecticut State Building Code, and ANSI/TIA 222-G with the analysis parameters of Section D for a maximum rating of 100%, the following modifications are required:

a. Strengthen the tower base. It is assumed there are no physical obstructions preventing the tower base remediation.
b. Adjust the initial tension in all guy levels.
c. Install additional horizontal sub-bracing at the midpoints of the following bays:

Location	No. of bays
779.6’ – 760.9’	3
754.6’ – 729.6’	4
698.4’ – 679.6’	3
654.6’ – 648.4’	1
604.6’ – 598.4’	1
365.0’ – 358.8’	1
271.3’ – 233.8’	6
183.8’ – 158.8’	4
10.0’ – 0.0’	1

d. Remove existing sub-bracing and install reinforcing to the legs at the following bays:

Location	No. of bays
948.4’ – 935.9’	2
717.1’ – 704.6’	2

e. Replace the existing diagonal braces at the following locations with new, higher capacity members:

Location	No. of bays
1010.9’ – 998.4’	2
290.0’ – 271.3’	3

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4. After the modifications are completed, the tower twist and sway at the elevations of the proposed dish under a service wind speed of 60 mph are as follows:

Dish	Elev, ft.	Twist, degrees		Sway, degrees	
		105%	**100%**	**105%**	**100%**
4’ dish/radome	350	0.59	0.61	0.10	0.10
4’ dish/radome	320	0.54	0.56	0.08	0.09
6’ dish/radome	100	0.24	0.24	0.10	0.10

H. PROVISIONS OF ANALYSIS

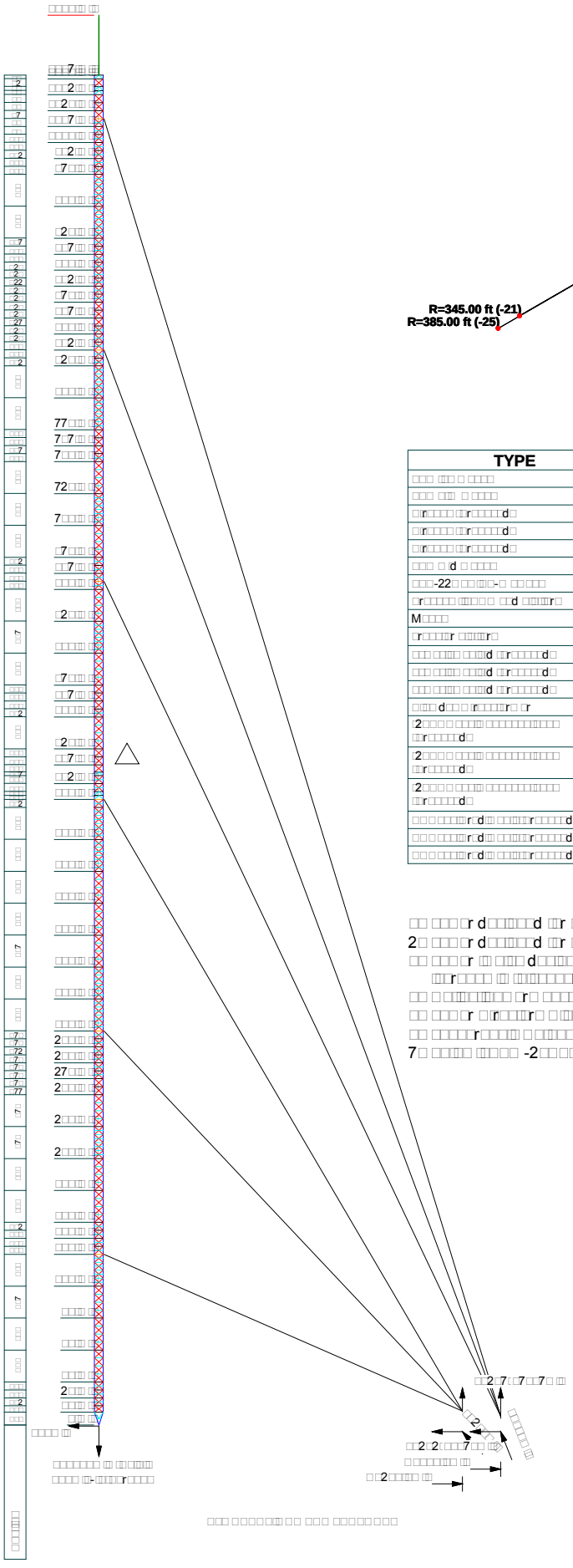
The analysis performed and the conclusions contained herein are based on the assumption that the tower has been properly installed and maintained, including, but not limited to the following:

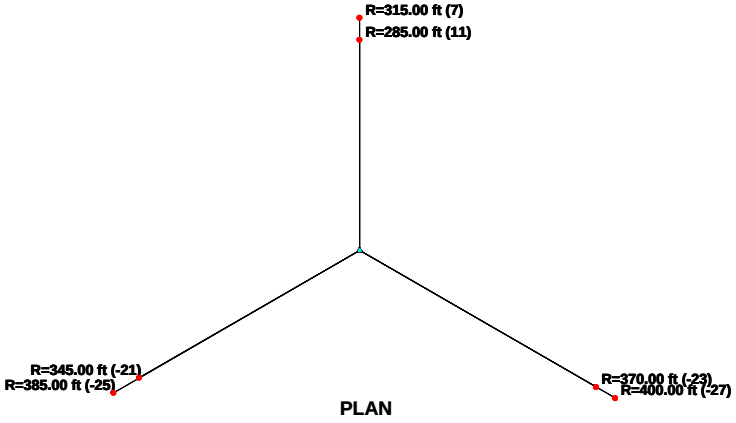
1. Proper alignment and plumbness.
2. Correct guy tensions.
3. Correct bolt tightness.
4. No significant deterioration or damage to any component.

Furthermore, the information and conclusions contained in this Report were determined by application of the current "state-of-the-arts" engineering and analysis procedures and formulae, and Stainless assumes no obligations to revise any of the information or conclusions contained in this Report in the event that such engineering and analysis procedures and formulae are hereafter modified or revised. In addition, under no circumstances will Stainless have any obligation or responsibility whatsoever for or on account of consequential or incidental damages sustained by any person, firm or organization as a result of any information or conclusions contained in the Report, and the maximum liability of Stainless, if any, pursuant to this Report shall be limited to the total funds actually received by Stainless for preparation of this Report.

Customer has requested Stainless to prepare and submit to Customer an engineering analysis with respect to the Subject Tower and has further requested Stainless to make appropriate recommendations regarding suggested structural modifications and changes to the Subject Tower. In making such request of Stainless, Customer has informed Stainless that Customer will make a determination as to whether or not to implement any of the changes or modifications which may be suggested by Stainless and that Customer will have any such changes or modifications made by riggers, erectors and other subcontractors of Customer's choice.

Customer hereby agrees and acknowledges that Stainless shall have no liability whatsoever to Customer or to others for any work or services performed by any persons other than Stainless in connection with the implementation of any structural changes or modifications recommended by Stainless including but not limited to any services rendered for Customer or for others by riggers, erectors or other subcontractors. Customer acknowledges and agrees that any riggers, erectors or subcontractors retained or employed by Customer shall be solely responsible to Customer and to others for the quality of work performed by them and that Stainless shall have no liability or responsibility whatsoever as a result of any negligence or breach of contract by any such rigger, erector or subcontractor.





PLAN

DESIGNED APPURTENANCE LOADING

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TOWER DESIGN NOTES

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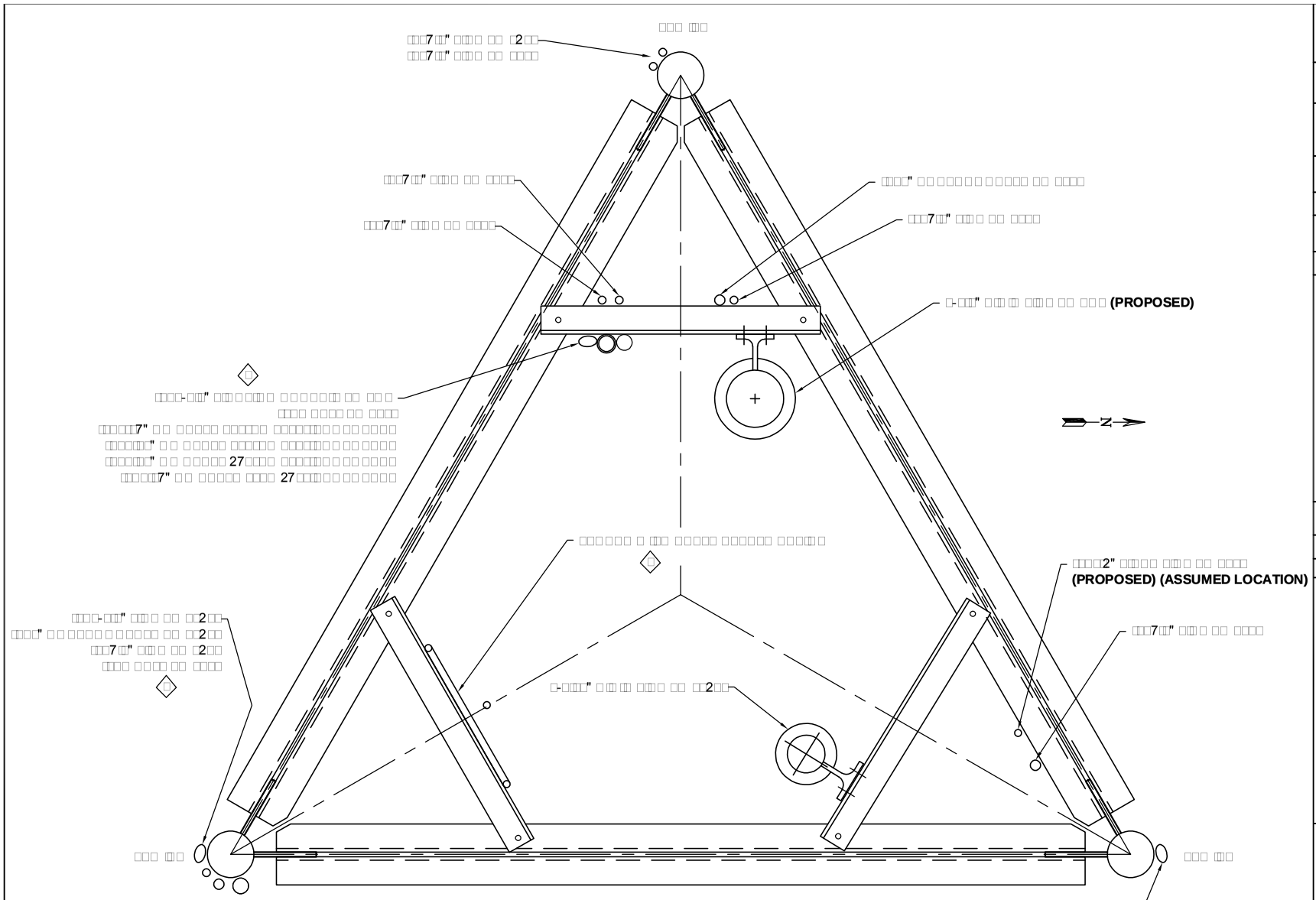
STAINLESS A BUSINESS OF FDH VELOCITEL □□□□r □□□□□□□	*Stainless* 2□□ □ □ □r□□r □□□d □□□ 2□□ □□□□ □□□□r□□□□□□□□ □□□□□ □□□□□□□□□□□□□□2-□□□□ □□□□□□□□□□□2-□□□□	**258113 New Britain CT** ***1057' steel height Stainless G-74 guyed towe*** □□□□□□ □□□ □□□□r□□□ □r□□□ □□□ □□□□□ □□□d□ □□d□□ □□□-222-□ □□□□ □□□2□□7 □□□□□ □□□ □□□□□ □2□□□□□□□□□□□□□r□□□□2□□□□ □□□□□2□2□7□□ □□□ □□□-□



TYPICAL CROSS SECTION

4/21/17		
2		-2
8/30/17	REMOVED LADDER EXTENTION, 7/8" AND 1" CTRL CABLE, LT. COND. WAS 1-1/4", ADDED 1.07", 1.31", 1.45" & 1.67 CABLES	

STAINLESS

A BUSINESS OF FDH VELOCITEL

Attachment 3

THESE ASSESSOR MAPS ARE NOT LAND RECORD MAPS AND SHOULD NOT BE USED FOR DEED DESCRIPTION OR REFERENCE. REPORT ANY INACCURACIES TO THE OFFICE OF THE TOWN ENGINEER. ALL AVENUES, STREETS, ROADS AND LANES ARE SHOWN WHETHER ACCEPTED, PROPOSED OR DEDICATED BY DEED.

THE 500 FOOT GRID IS BASED ON THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (N.A. DATUM OF 1927)

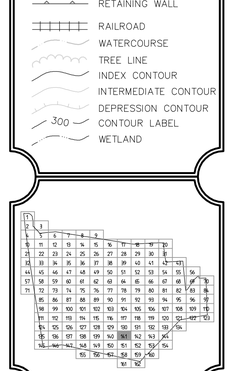
NATIONAL GEODETIC DATUM OF 1929

MAPPING CONFORMS TO NATIONAL MAP ACCURACY STANDARDS

DIGITAL PHOTOGRAMMATIC MAPPING BY: QUINN ASSOCIATES, HORSHAM, PA. DATE OF PHOTOGRAPHY MARCH 19,1990. CONTOUR INTERVALS ARE 2 FEET.

LEGEND

- (8) – ASSESSOR NUMBER
- × 385.6 SPOT ELEV.
- LEDGE
- TRAFFIC SIGNAL
- IRON PIN
- MON
- VALVE
- BENCHMARK
- CATCH BASIN
- HAND HOLE
- FP FLAG POLE
- MANHOLE
- HYDRANT
- POST
- FLOW ARROW
- WELL
- R.R. SWITCH
- LIGHT POLE
- POLE
- SWAMP
- SHRUB
- CTREE
- DTREE
- CULVERT
- LIGHT PEDESTAL
- R.R. CATENARY SUPPORT
- EDGE OF PAVEMENT
- DRIVEWAY
- SIDEWALK
- GUARD RAIL
- FENCE
- RETAINING WALL
- RAILROAD
- WATERCOURSE
- TREE LINE
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- DEPRESSION CONTOUR
- 300 CONTOUR LABEL
- WETLAND



KEY MAP

TOWN OF FARMINGTON

ASSESSOR'S OFFICE

1 MONTEITH DRIVE, FARMINGTON, CONNECTICUT 06032
PHONE: (860) 675-2370 FAX: (860) 675-2376

100 0 100 200 300 400
SCALE 1"=100'

MAP PREPARED AND MAINTAINED BY:
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION

ASSESSOR'S MAP

OF THE
TOWN OF FARMINGTON
HARTFORD COUNTY, CONNECTICUT

SHEET NO:

141 OF 162

DATE PRINTED: OCTOBER 2016

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2012.

Information on the Property Records for the Municipality of Farmington was last updated on 2/13/2018.

Property Summary Information

Parcel Data And Values | Building | Outbuildings | Sales | Google Map

Parcel Information

Location:	200 COLT HIGHWAY	Property Use:	Industrial	Primary Use:	Utility Building
Unique ID:	03750200	Map Block Lot:	0141 7B	Acres:	10.00
490 Acres:	0.00	Zone:	EE	Volume / Page:	0554/0608
Developers Map / Lot:		Census:	4602-02		

Value Information

	Appraised Value	Assessed Value
Land	600,000	420,000
Buildings	291,886	204,320

	Appraised Value	Assessed Value
Detached Outbuildings	0	0
Total	891,886	624,320

Owner's Information

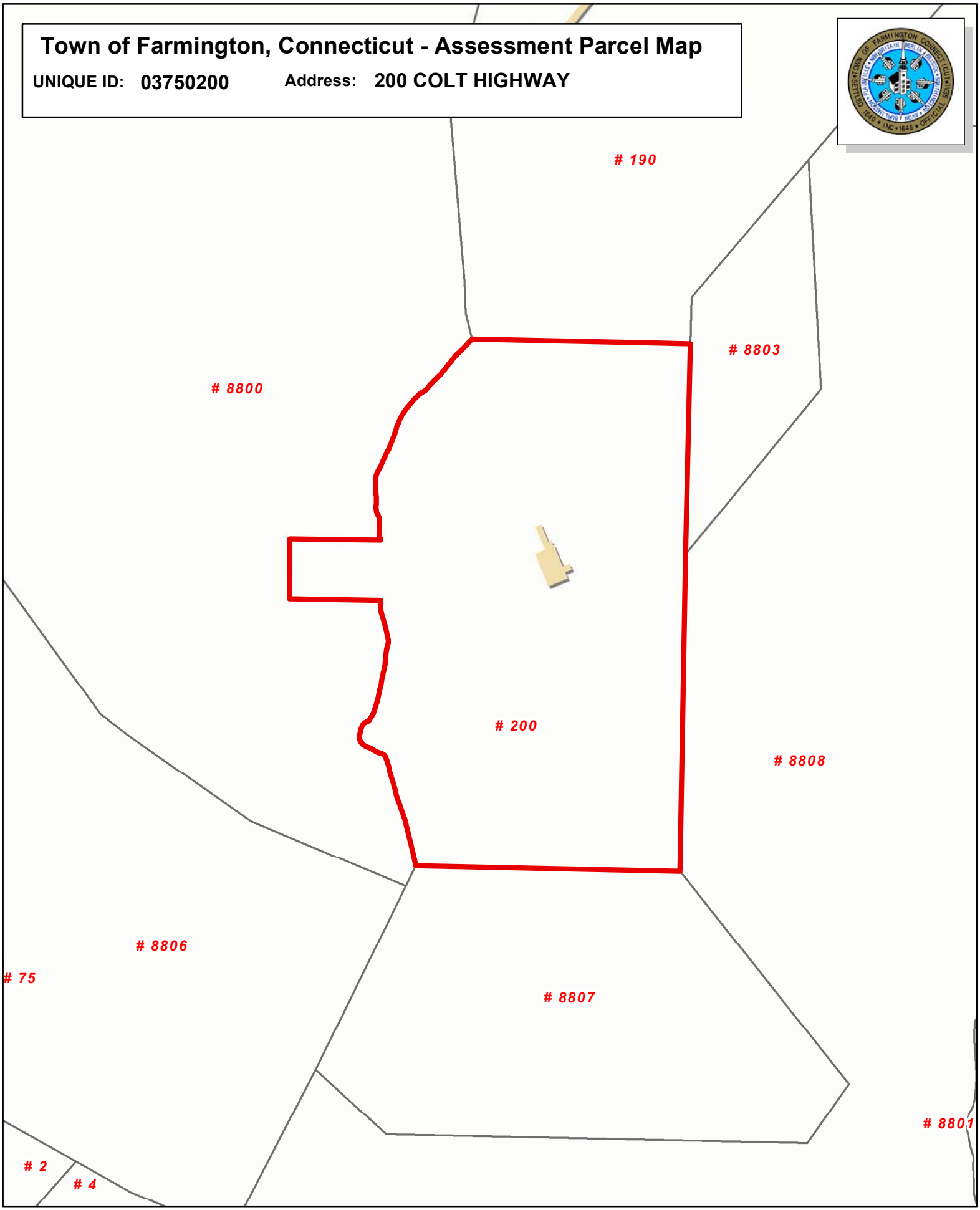
Owner's Data
OUTLET BROADCASTING INC E-PROPERTY TAX DEPT 201 ONE COMCAST CENTER,32ND FL PHILADELPHIA, PA 19103

Back To Search (JavaScript:window.history.back(1);)

Print View (PrintPage.aspx?towncode=052&uniqueid=03750200)

Town of Farmington, Connecticut - Assessment Parcel Map

UNIQUE ID: 03750200 **Address:** 200 COLT HIGHWAY



Map Produced Aug 2017

Approximate Scale: 1 inch = 200 feet

Attachment 4

FedEx Shipment Receipt

Address Information

Ship to:
c/o NBC Universal - WVIT
Outlet Broadcasting Inc
Attn: Jim Moyer
1422 New Britain Ave
WEST HARTFORD, CT
06110
US
2025246401

Ship from:
Anthony Flores

21 Ridgecrest Drive

Napa, CA
94558
US
7078121311

Shipment Information:
Tracking no.: 771487090551
Ship date: 02/15/2018
Estimated shipping charges: 63.78 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: Standard Overnight
Package type: FedEx Box
Number of packages: 1
Total weight: 2 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Drop off package at FedEx location

Billing Information:
Bill transportation to:
Your reference:
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

FedEx Shipment Receipt

Address Information

Ship to:	**Ship from:**
Melanie Bachman	Anthony Flores
Connecticut Siting Council	
Ten Franklin Square	21 Ridgecrest Drive
NEW BRITAIN, CT	Napa, CA
06051	94558
US	US
8608272935	7078121311

Shipment Information:
Tracking no.: 771487143033
Ship date: 02/15/2018
Estimated shipping charges: 63.78 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: Standard Overnight
Package type: FedEx Box
Number of packages: 1
Total weight: 2 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Drop off package at FedEx location

Billing Information:
Bill transportation to:
Your reference:
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

FedEx Shipment Receipt

Address Information

Ship to:
William Warner
Town of Farmington
1 Monteith Drive

FARMINGTON, CT
06032
US
8606752325

Ship from:
Anthony Flores

21 Ridgecrest Drive

Napa, CA
94558
US
7078121311

Shipment Information:
Tracking no.: 771487139968
Ship date: 02/15/2018
Estimated shipping charges: 63.78 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: Standard Overnight
Package type: FedEx Box
Number of packages: 1
Total weight: 2 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Drop off package at FedEx location

Billing Information:
Bill transportation to:
Your reference:
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

FedEx Shipment Receipt

Address Information

Ship to:	**Ship from:**
Kathleen Eagen	Anthony Flores
City of Farmington	
1 Monteith Drive	21 Ridgecrest Drive
FARMINGTON, CT	Napa, CA
06032	94558
US	US
8606752325	7078121311

Shipment Information:
Tracking no.: 771487164991
Ship date: 02/15/2018
Estimated shipping charges: 63.78 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: Standard Overnight
Package type: FedEx Box
Number of packages: 1
Total weight: 2 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Drop off package at FedEx location

Billing Information:
Bill transportation to:
Your reference:
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.