SITE NAME: **LAKE LEELANAU - PRICE** 

PROJECT DESCRIPTION: PROPOSED

**TELECOMMUNICATIONS** 

**FACILITY** 

**TOWER TYPE:** 199' MONOPOLE TOWER

SITE ADDRESS: E DUCK LAKE RD

**LAKE LEELANAU, MI 49653** 

(LEELANAU COUNTY)

2,500 ± SQ. FT. AREA OF **CONSTRUCTION:** (LEASE AREA)

JURISDICTION:

**LEELANAU COUNTY** 

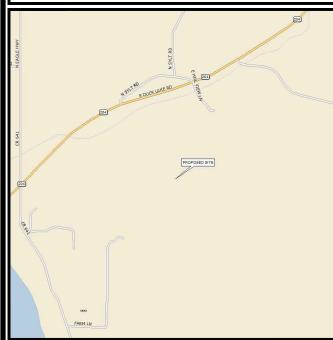
PARCEL #: 009-024-038-00

**LEGAL DESCRIPTION:** NA ZONING: 102

#### PROJECT INFORMATION

N 44° 58' 58.836" **LATITUDE** (NAD '83) W 85° 41' 49.848" (NAD '83) LONGITUDE





# **LOCATION MAP**

FROM CHERRY CAPITAL AIRPORT: TAKE S GARFIELD AVE, E GRANDVIEW PKWY AND M-72 W TO S BUGAI RD IN ELMWOOD CHARTER TOWNSHIP. TURN RIGHT ONTO W SOUTH AIRPORT RD. TURN RIGHT ONTO S GARFIELD AVE. TURN LEFT ONTO E FRONT ST, E FRONT ST TURNS SLIGHTLY RIGHT AND BECOMES E GRANDVIEW PKWY, CONTINUE STRAIGHT ONTO W GRANDVIEW PKWY, TURN LEFT ONTO M-72 W, FOLLOW S BUGAI RD AND LAKE LEELANAU DR TO FARM LN IN SUTTONS BAY TOWNSHIP, TURN RIGHT ONTO S BUGAI RD CONTINUE ONTO LAKE LEELANAU DR, TURN RIGHT ONTO FARM LN, TURN LEFT TO STAY ON FARM LN, TURN LEFT TO STAY ON FARM LN.

#### DRIVING DIRECTIONS



**USA** • INTERNATIONAL

# **SITE NAME: LAKE LEELANAU - PRICE**

E DUCK LAKE RD LAKE LEELANAU, MI 49653 (LEELANAU COUNTY)

**CALL FOR UNDERGROUND** UTILITIES PRIOR TO DIGGING

(800) 922-1987 EMERGENCY:

**CALL 911** 

Know what's **below**. **Call** before you dig

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

T.B.D.

- INTERNATIONAL BUILDING CODE 4. NATIONAL ELECTRIC CODE

**UTILITIES:** 

ADDRESS:

POWER COMPANY:

**METER # NEAR SITE:** 

- (2015 EDITION)
  (2014 EDITION)
  INTERNATIONAL CODE COUNCIL 5. LOCAL BUILDING CODE
  ANSI/ITIA/EIA-222-G 6. CITY/COUNTY ORDINANCES

### **CODE COMPLIANCE**

CONSTRUCTION OF A TELECOMMUNICATION FACILITY, CONSISTING OF ANTENNAS ASSOCIATED APPURTENANCES ON A PROPOSED MONOPOLE TOWER. FENCED COMPOUND & SERVICE EQUIPMENT FOR FUTURE CARRIERS. NO WATER OR

- FACILITY DESIGNED IN ACCORDANCE WITH LEELANAU COUNTY REGULATIONS.

  THIS IS AN UNMANNED FACILITY WHICH WILL NOT REQUIRE ANY WATER OR SEWER FACILITIES.
- TRAFFIC WILL CONSIST ONLY OF MAINTENANCE PERSONNEL, VISITING THE SITE APPROXIMATELY TWICE A MONTH.

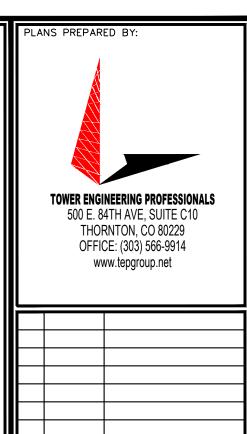
## **PROJECT DESCRIPTION & NOTES**

#### SITE CONSTRUCTION MANAGER: WIBLUE, INC. COREY BONNER NAME: CONTACT: (986) 206-7071 SITE APPLICANT: ATLAS TOWER HOLDINGS, LLC NAME: ADDRESS: 3002 BLUFF STREET SUITE 300 CITY, STATE, ZIP: BOULDER, CO 80301 CONTACT: CORNELIUS WHITEH CORNELIÚS WHITEHEAD (303) 448-8896 **ORIGINAL SURVEYOR:** NAME: ADDRESS: CITY, STATE, ZIP: CONTACT: **CIVIL ENGINEER:** TOWER ENGINEERING PROFESSIONALS NAME: 500 E 84TH WAY, UNIT C-10 CITY, STATE, ZIP: THORNTON, CO 80229 CONTACT: NICHOLAS M. CONSTANTINE, P.E. (303) 566-9918 **ELECTRICAL ENGINEER:** NAME: ADDRESS: 326 TRYON ROAD

TOWER ENGINEERING PROFESSIONALS CITY, STATE, ZIP: RALEIGH, NC 27603 MARK S. QUAKENBUSH, P.E. (919) 661-6351 CONTACT: PROPERTY OWNER: NAME: PRICE BRUCE W & BETSEY TRUST ADDRESS: 7350 E DUCK LAKE RD CITY, STATE, ZIP: LAKE LEELANAU, MI 49653

**CONTACT INFORMATION** 

REV SHEET DESCRIPTION TITLE SHEET 0 GENERAL NOTES 0 AREA PLAN **Z**1 0 SITE PLAN 0 **Z**3 COMPOUND DETAIL 0 Z4 TOWER ELEVATON 0 **Z**5 FENCE DETAILS 0 **INDEX OF SHEETS** 



08-17-23 ZONING DATE ISSUED FOR: DRAWN BY: CHECKED BY: AUW



SEAL:

SHEET NUMBER:

REVISION:

TEP#:333146.8747

### **GENERAL NOTES:**

- 1. ALL REFERENCES TO TOWER OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED ATLAS TOWER 1, LLC OR IT'S DESIGNATED REPRESENTATIVE.
- 2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF MICHIGAN.
- STRUCTURE IS DESIGNED IN ACCORDANCE WITH ANSI/TIA/EIA-222-G, 2005, FOR A 90 MPH 3-SECOND GUST WIND LOAD.
  THIS CONFORMS TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2015 EDITION.
- 4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2015 EDITION.
- 5. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
- 6. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERCEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
- 7. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND IT'S COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
- 8. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISES AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
- 9. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
- 11. ACCESS TO THE PROPOSED WORK SITE ON THE PROPERTY IS RESTRICTED AND CONTROLLED. THE CONTRACTORS SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY INCLUDING MATERIALS DELIVERY AND ACCESS WITH PROPERTY OWNER. ADDITIONALLY, THE GATE(S) MUST BE CLOSED AND LOCKED EACH TIME THE CONTRACTORS ENTER THE PROPERTY, GATE(S) MUST REMAIN CLOSED DURING ALL WORK. WHEN CONTRACTORS LEAVE THE PROPERTY THE GATE(S) MUST BE SECURED WITH THE LOCKS, THE GATE CABLE MUST BE LOCKED, AND THE PYLON MUST BE PLACED IN THE CENTER OF THE CABLE.
- 12. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR. CONTRACTOR SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
- 13. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
- 14. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
- 15. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN IT PRESENT STATE.

  AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE
  WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK
  PRIOR TO PAVING. ANY SOFTER MATERIAL SHALL BE REWORKED OR REPLACED.
- 16. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN DIGGING, DRILLING, EXCAVATING, ETC. ON THE PROPERTY. ESPECIALLY SENSITIVE IS WORK IN AND NEAR THE 10 WIDE UTILITY EASEMENT AND BUILDINGS. THERE IS EXISTING INFRASTRUCTURE IN THIS AREA (UNDERGROUND UTILITIES, POWER LINES, WATER LINES, PUMPS, PIPES, WIRES, CISTERNS, IRRIGATION, PITS, DITCHES, DRAINAGE STRUCTURES, ETC.). THE PROPERTY OWNER MUST BE NOTIFIED IN ADVANCE OF ALL SUCH WORK AND MAY BE ON SITE FOR SUCH WORK. THE CONTRACTOR IS REQUIRED TO MAINTAIN AND PROTECT ALL EXISTING INFRASTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE BY FAILURE TO MAINTAIN THE EXISTING INFRASTRUCTURE IN OPERABLE CONDITION. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL EXISTING INFRASTRUCTURE AND ADDED STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE TOWER OWNER AND THE PROPERTY OWNER.
- 17. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
- 18. ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION.
  NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED
  PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE
  SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

### **STRUCTURAL STEEL NOTES:**

- THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, 9TH EDITION.
- 2. UNLESS OTHERWISE NOTED, ALL STURCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
  - A. STRUCTURAL STEEL, ASTM DESIGNATION A36 OR A992 GR50.
  - B. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
  - C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
    D. ALL WASHERS. ASTM F436 HARDENED STEEL WASHERS.
- ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS FOR MANUAL OF STEEL CONSTRUCTION,
- 4. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
- HOT-DIP GALVANIZE ALL ITEMS ULESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE.
- 6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICH PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL.
- 7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
- ALL PROPOSED AN/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
- 9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END
  OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE
  BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
- 10. ALL ASSEMBLY AND ANCHOR BOLTS ARE TO BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN SECTION 8.1 OF THE AISC, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". DATED JUNE 30, 2004.
- 11. FLAT WASHERS ARE TO BE INSTALLED WITH BOLTS OVER SLOTTED HOLES.
- 12. DO NOT OVER TORQUE ASSEMBLY BOLTS. GALVANIZING ON BOLTS, NUTS, AND STEEL PARTS; MAY ACT AS A LUBRICANT, THUS OVER TIGHTENING MAY OCCUR AND MAY CAUSE BOLTS TO CRACK AND SNAP OFF.
- 13. PAL NUTS ARE TO BE INSTALLED AFTER NUTS ARE TIGHT AND WITH EDGE LIP OUT. PAL NUTS ARE NOT REQUIRED WHEN SELF-LOCKING NUTS ARE PROVIDED.
- 14. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
- 15. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-2010 STRUCTURAL WELDING CODE STEEL.

LAKE
LEELANAU - PRICE
E DUCK LAKE RD
LAKE LEELANAU, MI 49653
(LEELANAU COUNTY)

PLANS PREPARED FOR:

WiBlue Inc.

Office: (888) 609-9596

PLANS PREPARED FOR:
ATLAS
TOWER

3002 BLUFF ST, SUITE 300 BOULDER, CO 80302 Office: (888) 609-9596





O 08-17-23 ZONING
REV DATE ISSUED FOR:

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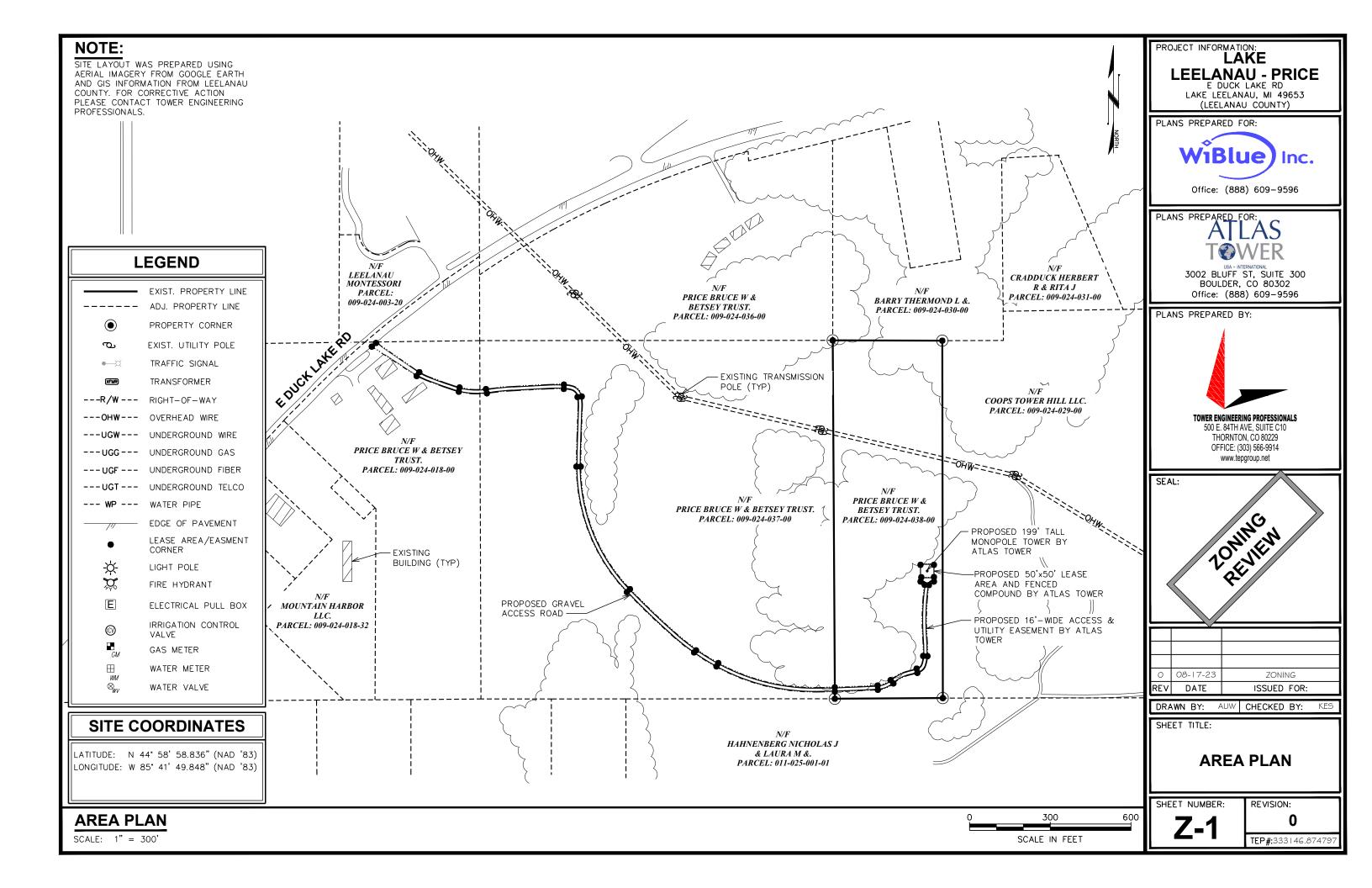
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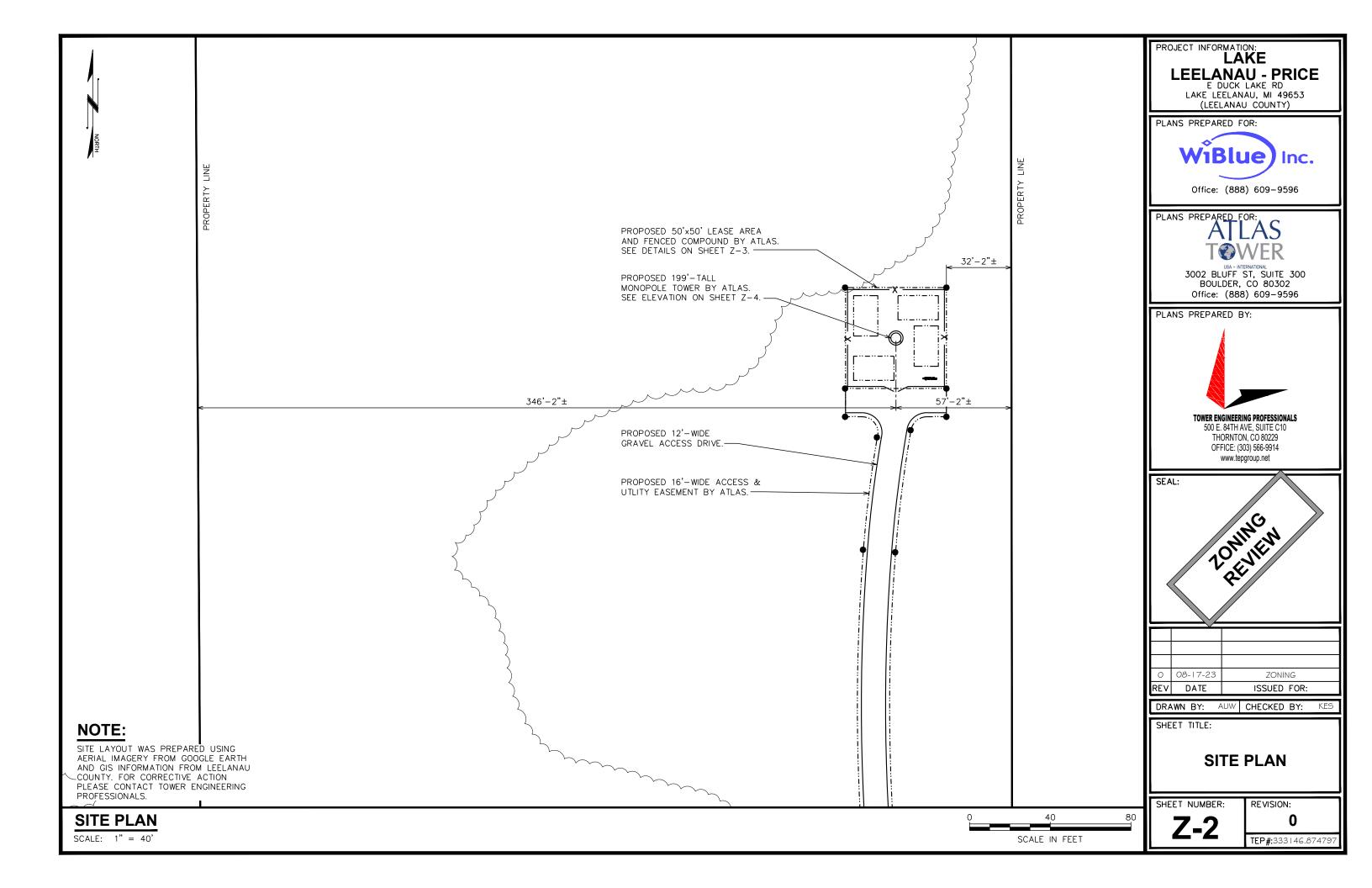
GENERAL NOTES

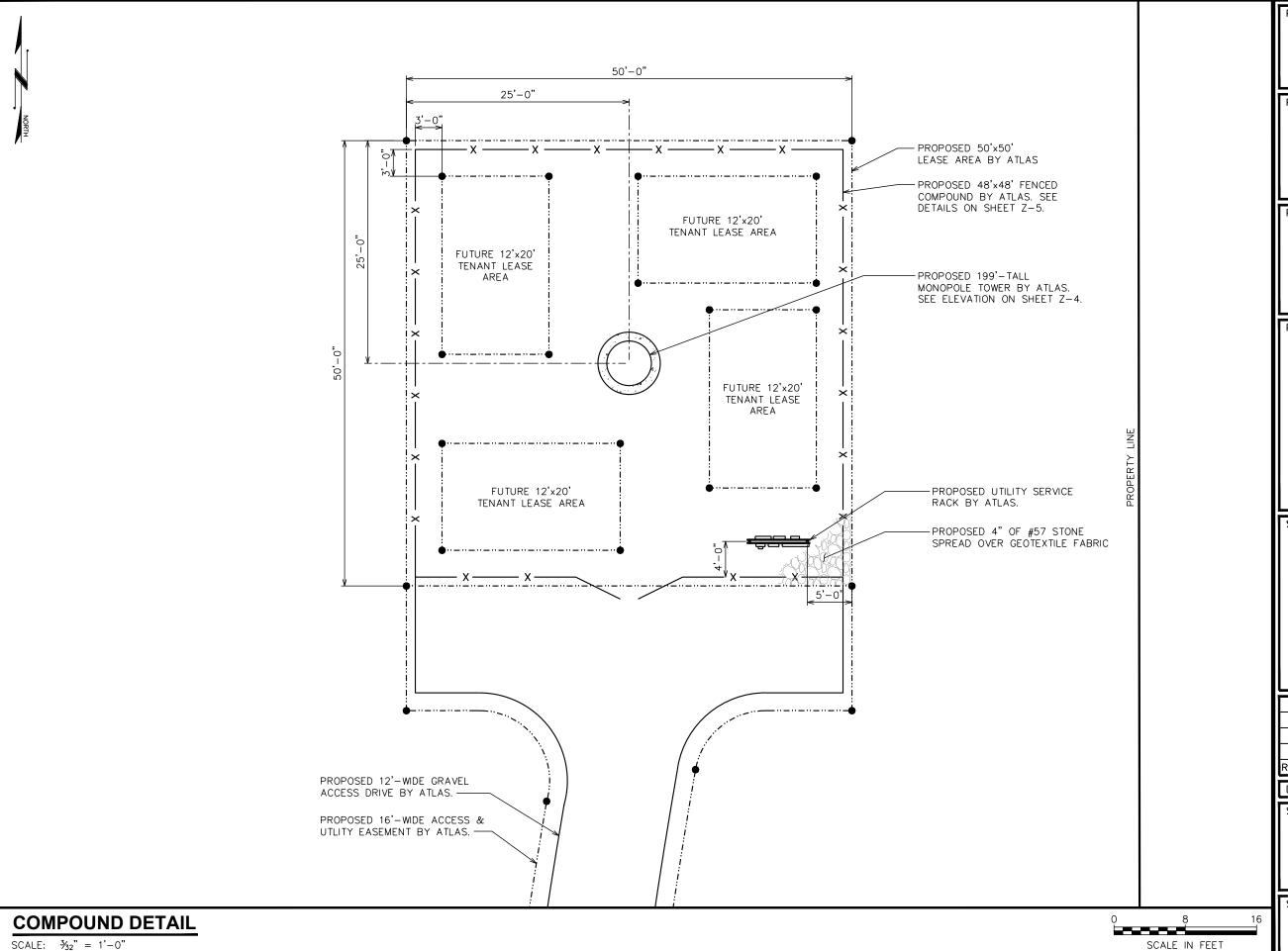
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REVISION:

TEP#:333146.874797







PROJECT INFORMATION:

LAKE

LEELANAU - PRICE E DUCK LAKE RD

E DUCK LAKE RD LAKE LEELANAU, MI 49653 (LEELANAU COUNTY)

PLANS PREPARED FOR:



Office: (888) 609-9596

PLANS PREPARED FOR:
ATLAS
TOWFR

3002 BLUFF ST, SUITE 300 BOULDER, CO 80302 Office: (888) 609-9596

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS** 500 E. 84TH AVE, SUITE C10

500 E. 84TH AVE, SUITE C10 THORNTON, CO 80229 OFFICE: (303) 566-9914 www.tepgroup.net

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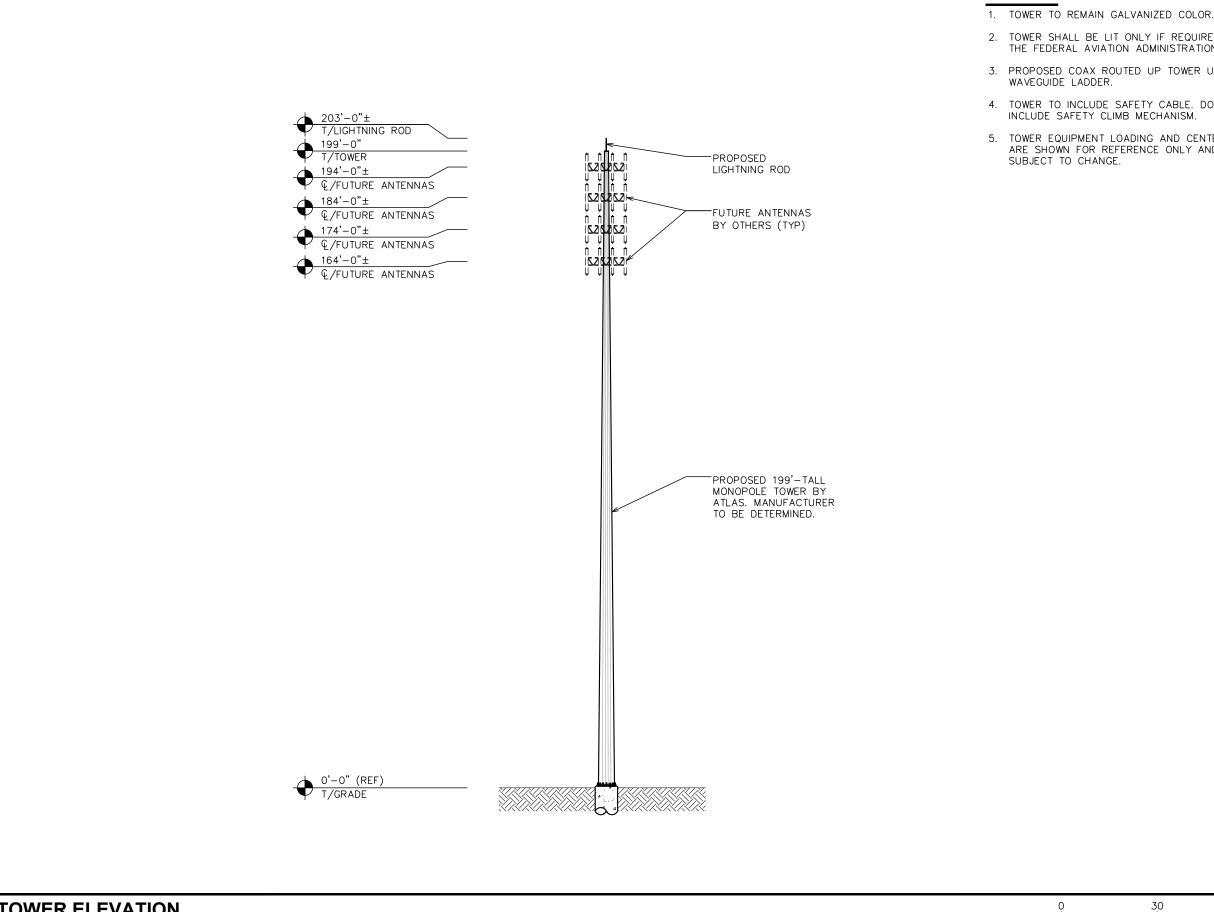
SHEET TITLE:

**COMPOUND DETAIL** 

SHEET NUMBER: **Z-3** 

REVISION:

TEP#:333146.87479



### NOTES:

- 2. TOWER SHALL BE LIT ONLY IF REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION.
- 3. PROPOSED COAX ROUTED UP TOWER USING
- 4. TOWER TO INCLUDE SAFETY CABLE. DO NOT INCLUDE SAFETY CLIMB MECHANISM.
- 5. TOWER EQUIPMENT LOADING AND CENTERLINES ARE SHOWN FOR REFERENCE ONLY AND ARE

LAKE **LEELANAU - PRICE** E DUCK LAKE RD LAKE LEELANAU, MI 49653

PLANS PREPARED FOR:



(LEELANAU COUNTY)

Office: (888) 609-9596

PLANS PREPARED FOR:

3002 BLUFF ST, SUITE 300 BOULDER, CO 80302 Office: (888) 609-9596

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS 500 E. 84TH AVE, SUITE C10 THORNTON, CO 80229 OFFICE: (303) 566-9914

www.tepgroup.net

SEAL: 10MMG

08-17-23 ZONING ISSUED FOR: REV DATE

DRAWN BY: AUW CHECKED BY:

SHEET TITLE:

**TOWER ELEVATION** 

SHEET NUMBER:

60

REVISION:

TEP#:333146.87479

**TOWER ELEVATION** 

SCALE IN FEET

SCALE: 1" = 30'

