



CITY OF ANTIGO

FINANCE, PERSONNEL, AND LEGISLATIVE COMMITTEE MEETING

MULTI-PURPOSE ROOM

Wednesday, April 18, 2018

CITY HALL, 700 EDISON STREET

6:00 PM

Call to Order

Discussion and Action May Occur on Any of the Following Agenda Items:

1. Approval of the Minutes from the March 21, 2018 Meeting
2. Wireless Equipment on Water Tower
3. Request to Fill Upcoming Street Commissioner Position Vacancy due to Retirement
4. Recommended Updates to the Street Commissioner Job Description
5. Filling Vacant Utility Clerk Position in the Clerk-Treasurer's Office
6. Utility Clerk Job Description Updates

Closed Session

1. Closed Session: Pursuant to Section 19.85(1)(c), Wisconsin Statutes, and upon proper motion, the committee will convene into closed session to discuss a Separation Agreement with a City Employee. Upon completion of discussion in closed session, the committee will reconvene into open session to act on matters discussed, if necessary, and to proceed with the regular order of business
2. Closed Session: Pursuant to Section 19.85(1)(c), Wisconsin Statutes, and upon proper motion, the committee will convene into closed session to discuss compensation for the Utility/Clerical Assistant due to vacancies in the Clerk-Treasurer's office. Upon completion of discussion in closed session, the committee will reconvene into open session to act on matters discussed, if necessary, and to proceed with the regular order of business

Any Other Matters Authorized by Law to be Considered

Adjournment

Upon reasonable notice, efforts will be made to accommodate disabled individuals through appropriate aids and services. For additional information, contact Jaime Horswill, 700 Edison Street, Antigo, Wisconsin 54409. (715) 623-3633 extension 100. Members of and possibly a quorum of members of other governmental bodies may be in attendance to gather information. Any governmental body other than that specifically referred to above will take no action.

DATE MAILED: April 12, 2018

BILL BRANDT



To: Mayor and City Council
From: Jim Pike, Comm. & Tech. Supervisor
Date: April 18, 2018
Re: Wireless Equipment on Water Tower

Cirrinity Internet is asking permission to install some wireless equipment on the City water tower at the Water Plant location. They would be utilizing the space that Einstein Cellular used to occupy. This equipment gives Cirrinity the ability to provide additional wireless internet service to residents of Antigo. Cirrinity will attach the antennas, (see supporting documents), on the tower railing with additional equipment being housed in their building that is already on that site.

Cirrinity is asking to pay rent of \$50.00 a month per system installed; they are looking to install five systems. Please advise.

Thank you

Tower Space Lease Agreement

This ("Agreement") is entered into this ____ day of _____, 2018 (the "Effective Date"), by and between The City of Antigo ("Lessor") and WW Systems, LLC ("Lessee").

Lessor and Lessee agree as follows:

1. The Site. Lessor owns or has a leasehold interest in certain real property more specifically described in Schedule A attached hereto (the "Site").
2. Lease Space; Lessee Equipment; Permitted Use. Lessor hereby leases to Lessee certain space at the Site more specifically described in Schedule A attached hereto (the "Lease Space") for the provision of wireless communications services and for the installation, construction, maintenance, operation, modification, repair, replacement and upgrade of Lessee's Equipment (collectively, the "Permitted Uses"). "Lessee's Equipment" shall mean Lessee's communications system including antennas, dishes, equipment, cabling, conduit and other personal property owned or operated by Lessee at the Site. Lessee shall provide their own AC power for the operation of Lessee's Equipment.
3. Easement. Subject to the terms of this Agreement, Lessor hereby grants Lessee a non-exclusive easement (meaning others may have easement rights to those areas) of ingress and egress upon, over, across and under the Site for the Permitted Uses. Easement is provided as long as Lessee's use will not compromise the structural integrity of the tower.
4. Term. The initial term of this Agreement shall be for the period of five (5) years beginning on the Effective Date (the "Initial Term"). Provided Lessee has not committed an Event of Default, Lessee shall have the option to extend the term of this Agreement, for five (5) additional terms of two (2) years each (each a "Renewal Term") on the terms and conditions provided herein. This Agreement shall automatically renew for a Renewal Term unless Lessee notifies Lessor in writing of Lessee's intention not to renew this Agreement at least sixty (60) days prior to the expiration of the then-current Term. The Initial Term and any Renewal Term are each collectively and individually referred to herein as the "Term."
5. Consideration. In exchange for the use of the Leased Space, Lessee will pay Lessor \$50 / month / radio-antenna system, with an annual escalator of 4% for following years. Installed / allowed systems are to identified in Schedule C.
6. Taxes. Lessee is responsible for payment of all personal property taxes assessed with respect to Lessee's Equipment. Lessor is responsible for payment of all real property taxes assessed with respect to the Site and for all personal property taxes assessed with respect to any personal property (other than Lessee's Equipment) located at the Site. In the event Lessor receives a notice of assessment with respect to taxes imposed on Lessee or Lessee's Equipment, Lessor shall provide Lessee with a copy of each such notice promptly upon receipt, but in no event later than thirty (30) days after receipt by Lessor. If Lessor does not provide such notice to Lessee, Lessor shall become responsible for payment of such tax without a reimbursement from Lessee.
7. Access. Lessee shall have twenty-four (24) hour, seven (7) day per week access to Lessee's Equipment located at the Site. Lessor agrees to provide to Lessee with such codes, keys or other instruments necessary for access to the Leased Space.
8. Interference.

- a. During the Term of this Agreement Lessor shall not: (i) permit any other person or entity to transmit or receive wireless communications from the Site in the same band, or (ii) permit any equipment to be located at the Site that causes interference with Lessee's Equipment or its wireless communications services.
- b. During the term of this Agreement, Lessee shall not cause frequency interference of any kind to the operations of the Lessor at the Site in excess of levels permitted by the Federal Communications Commission ("FCC"). If such interference is caused by Lessee and cannot be reduced to levels reasonably acceptable to Lessor, the parties shall meet to discuss a reasonable resolution of such interference.

9. Lessee Obligations. Lessee has obtained all approvals of governmental authorities required in connection with ownership and use of Lessee's Equipment. Lessee shall use the Lease Space and operate and maintain Lessee's Equipment in material compliance with all applicable laws, rules and regulations including, without limitation, those enforceable by the FCC and the Federal Aviation Administration ("Applicable Laws").

10. Insurance. Lessee shall maintain the following levels of insurance coverage, and shall provide proof of insurance to Lessor prior to the Effective Date and as reasonably requested by Lessor:

- a. Worker's Compensation Insurance with statutory limits in accordance with Applicable Laws.
- b. Commercial General Liability Insurance (Bodily Injury and Property Damage), the limits of liability of which shall not be less than \$1,000,000.00 per occurrence.
- c. An umbrella policy of not less than \$2,000,000.00.
- d. Certificate of Insurance listing Lessor as additional insured.

11. No Warranties. Lessor makes no guarantee or warranty including any implied warranty of merchantability or fitness for a particular use. Lessee has examined the Site and the Lease Space and determined that they are suitable for Lessee's purposes.

12. Lessor Obligations. Lessor agrees to keep the Site in good condition and repair, reasonable wear and tear expected, and in compliance with all Applicable Laws including applicable sections of Part 17 of the FCC's rules pertaining to lighting, marking, inspection and maintenance.

13. Improvements. Lessee may not make improvements or alterations to any structures or any portion of the Site without the express written permission of Lessor. Any such improvements that are approved by the Lessor and made by Lessee shall become the property of Lessor upon termination or expiration of this Agreement.

14. Indemnification. Each party (the "Indemnifying Party") shall, to the fullest extent permitted by law, indemnify, defend and hold harmless the other party, against all claims, losses, damages, liabilities, costs, and expenses including, without limitation, reasonable attorneys' fees ("Claims") made by third parties, arising from: (i) the use and/or occupancy of the Site by the Indemnifying Party and any third party acting under the direction and control of the Indemnifying Party including, without limitation, its agents, employees, or contractors; (ii) the negligence, willful misconduct or strict liability of the Indemnifying Party and any third party acting under the direction and control of the Indemnifying Party including, without limitation, its agents, employees, or contractors; or (iii) any material breach by the Indemnifying Party of any provision of this Agreement. Neither party shall be responsible or liable to the other for any Claims to the extent attributable to any acts or omissions of the other party or to other third parties (other than a third party acting under the direction and control of an Indemnifying Party including, without limitation, its agents, employees, or contractors) at the Site.

15. LIMITATION OF LIABILITY. EXCEPT IN THE CASE OF A PARTY'S WILLFUL MISCONDUCT OR AN INDEMNIFICATION OBLIGATION ARISING FROM A THIRD PARTY CLAIM, NEITHER LESSOR NOR LESSEE SHALL BE RESPONSIBLE FOR, AND HEREBY WAIVES THE RIGHT TO RECOVER ANY INDIRECT, INCIDENTAL, SPECIAL, RELIANCE OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE, LOSS OF OPPORTUNITY OR ANY OTHER ECONOMIC DAMAGE) ARISING OUT OF, RELATING TO, OR IN CONNECTION WITH THIS AGREEMENT.

16. Assignment. Lessor may assign this Agreement with Lessee's prior written consent, which shall not be unreasonably withheld, conditioned or delayed; provided, however, that upon written notice to Lessor, Lessee may assign this Agreement: (i) to any person or entity which is directly or indirectly (through one or more subsidiaries) controlled by, controlling or under common control with Lessee, (ii) to any person or entity which is the successor or surviving entity by a merger or consolidation of such entity pursuant to Applicable Law, or (iii) to any person or entity that purchases substantially all of the assets or equity of Lessee. Any permitted assignee shall expressly assume, and become bound by, all of Lessor's obligations under this Agreement. Following any such assignment and assumption, Lessee shall be relieved of all of its obligation under this Agreement from and after the date of such assignment or transfer. Lessor may assign or mortgage its rights under this Agreement at any time.

17. Default. The failure by a party to observe or perform any of the provisions of this Agreement to be observed or performed by such party, where such failure shall continue for a period of 45 days after written notice thereof is received from the other party, shall be considered an "Event of Default". If there occurs an Event of Default by either party, the non-defaulting party shall have the exclusive right to terminate this Agreement.

18. Lessee's Right to Terminate. In the event that Lessee determines in its sole discretion that the Site is no longer necessary for the provision of its wireless communications services, Lessee shall have the right to terminate this Agreement at any time upon 90 days' prior written notice to Lessor.

19. Removal of Lessee's Equipment. Lessor acknowledges and agrees that Lessee's Equipment is and shall remain Lessee's personal property, and Lessee shall at all times be authorized to remove said property from the Site free from any lien of Lessor. Lessor waives any and all lien rights it may have, statutory or otherwise, concerning Lessee's Equipment or any portion thereof. Upon the expiration or earlier termination of this Agreement, Lessee, at its sole cost and expense shall remove Lessee's Equipment and shall surrender the Lease Space in good condition, reasonable wear and tear expected, and shall repair any damage caused to the Lease Space by removal of Lessee's Equipment. Provided Lessee has not committed an Event of Default, Lessee shall have 90 days to remove Lessee's Equipment. If this Agreement has been terminated due to an Event of Default by Lessee, Lessee shall have 30 days, weather permitting, to remove Lessee's Equipment.

20. Mechanic's Lien. Lessee shall keep the Site free and clear of all mechanic's and materialmen's liens arising from or relating to any work done by Lessee at the Site. If a mechanic's or materialmen's lien is filed against the Site as a result of Lessee's work at the Site, Lessee shall cause any such lien to be bonded or discharged of record within 30 days of being notified in writing of the lien. If Lessee fails to bond or discharge the lien within such 30-day period, Lessor, in addition to any other rights or remedies available at law or equity, shall have the right to discharge the lien by paying the amount claimed to be due or to bond the lien. Any amount paid by Lessor in discharging or bonding any lien together with all costs and expenses including, without limitation, attorneys' fees and costs, shall be immediately due and payable by Lessee upon demand from Lessor.

21. Notices. Any notice, request or demand required or permitted to be given pursuant to this Agreement shall be in writing, addressed to the parties as provided in Schedule B, or to such other address designated by notice hereunder to the other party, and shall be: (i) delivered personally; (ii) delivered by express overnight

delivery service; or (iii) mailed, via certified mail or first class U.S. Postal Service, with postage prepaid, and a return receipt required. Notices will be deemed given on the date of receipt (or refusal thereof) if delivered pursuant to method (i), and the date of confirmed receipt (or refusal thereof) if delivered pursuant to methods (ii) or (iii).

22. Binding Effect. All of the covenants, conditions, and provisions of this Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and permitted assigns.

23. Severability. If any provision of this Agreement is held by any court or governmental authority of competent jurisdiction to be invalid or unenforceable to any extent, the remainder of this Agreement and the application of such provision to the parties or circumstances shall not be affected thereby and shall be enforced to the greatest extent permitted by law.

24. Waiver. The failure of either Party to insist on strict performance of any of the terms or conditions of this Agreement or to exercise any of its rights under this Agreement will not waive such rights and such party will be permitted to enforce such rights at any time and take such other actions as may be lawful and authorized under this Agreement, whether at law or in equity.

25. Survival. All provisions of this Agreement relating to indemnification and limitation of liability will survive any termination or expiration of this Agreement. In addition, any provisions of this Agreement which require performance subsequent to the termination or expiration of this Agreement will survive termination or expiration.

26. Authority. The persons who have executed this Agreement represent and warrant that they are duly authorized to execute this Agreement in their individual or representative capacity as indicated.

27. Governing Law. This Agreement shall be construed, performed and enforced in accordance with the laws of the State of Wisconsin without regard to conflict of law provisions.

28. Entire Agreement; Amendment. This Agreement (which includes any and all Schedules hereto) contains all agreements, promises, warranties, representations and understandings between the parties regarding the subject matter hereof and supersedes all prior agreements promises, warranties, representations or understandings between the parties and shall constitute the entire agreement between the parties regarding the subject matter thereof. This Agreement may not be modified, except in writing signed by the party against whom such modification is sought to be enforced.

IN WITNESS WHEREOF, the parties hereto bind themselves to this Tower Space Lease Agreement as of the Effective Date.

Lessor: _____

Lessee: WW Systems, LLC

By: _____

By: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

SCHEDULE A
SITE AND LEASE SPACE

Site: White Water Tower, Antigo, WI

Address:

Legal Description (if available):

Lease Space: Shall include such space as is necessary to locate all of Lessee's Equipment at the Site, more specifically described as follows :

Antennas, Radios and Cabling to be attached to the ring / railing structure at top of water tower. Cables will follow cable path to the bottom and proceed through the conduit to Lessee's hut.

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SCHEDULE B

Contact Information for Notices under Section 21 of the Tower Space Lease Agreement:

Lessor:

Lessee:

WW Systems, LLC
 Attn: Brice Widener
 PO BOX 160
 Wittenberg, WI 54499-0160

Emergency Contact Information:

Lessor:

Lessee:

W-Towers – (715) 253-2111
 Brice Widener – (715) 216-0297 or brice@cirrinity.net
 Adam Igl – (715) 216-0182 or adam@cirrinity.net

SCHEDULE C**Equipment Specification / Frequencies:**

System 1: Install Date: _____

Radio Make / Model / Frequency: Baicells Nova-233 G2 Outdoor 3.65 GHz Band

Antenna Make / Model: KP Performance KP-3DP65S-45

System 2: Install Date: _____

Radio Make / Model / Frequency: Shared with System 1

Antenna Make / Model: KP Performance KP-3DP65S-45

System 3: Install Date: _____

Radio Make / Model / Frequency: Baicells Nova-233 G2 Outdoor 3.65 GHz Band

Antenna Make / Model: KP Performance KP-3DP65S-45

System 4: Install Date: _____

Radio Make / Model / Frequency: Shared with System 3

Antenna Make / Model: KP Performance KP-3DP65S-45

System 5: Install Date: _____

Radio Make / Model / Frequency: Ubiquiti PowerBeam AC Gen2 5GHz 400

Antenna Make / Model: Integrated with Radio

System 6: Install Date: _____

Radio Make / Model / Frequency: _____

Antenna Make / Model: _____

System 7: Install Date: _____

Radio Make / Model / Frequency: _____

Antenna Make / Model: _____

System 8: Install Date: _____

Radio Make / Model / Frequency: _____

Antenna Make / Model: _____

Product Data Sheet

1-855-276-(KPPA) 5772 or 780-702-7577
 info@kppperformance.ca
 15497 117 Ave, Edmonton, AB T5M3X4, Canada
 5000 W. Proviso Dr, Unit #2 Melrose Park, IL 60163, USA



KP-3DP65S-45

2-port sector antenna, 3300-3800 MHz, 65° HPBW, 3.5° fixed electrical downtilt

- High gain and slant dual polarization
- Simultaneously maximize coverage and minimize interference
- Ideal for 3-sector frequency-reuse one with LTE equipment

Electrical Specification

Frequency Band	MHz	3300—3550	3550—3800
Gain	dBi	17.5±0.5	18.0±0.5
Polarization		Slant (±45°)	Slant (±45°)
Horizontal HPBW	Degree	65±2	65±2
Horizontal Squint	Degree	±2	±2
Vertical HPBW	Degree	7±1	6±1
Electrical Downtilt	Degree	3.5	3
Front-to-Back Ratio @ 180°	dB	35	40
Front-to-Back Ratio @ 180°±30°	dB	30	35
Cross-polarization Ratio at Boresight	dB	18	25
Cross-polarization Ratio over HPBW	dB	15	16
VSWR		1.5 typ 1.7 max	1.5 typ 1.7 max
Return Loss	dB	14 typ 12 max	14 typ 12 max
Port-to-Port Isolation	dB	25	25
Max. Input Power per Port	W	50	50
Impedance	Ohms	50	50

Mechanical Specifications

RF Connector Type	7/16 DIN Female
RF Connector Quantity	2
RF Connector Position	Bottom of radome
Electrical Grounding	RF connector grounded to reflector and mounting bracket
Radome Material	UV resistant PVC
Ingress Protection	IP55 rain and dust resistant
Wind Load, frontal	170N @ 160km/h 38lbf @ 100mph
Max. Wind Speed	160km/h 100mph
Temperature Range	-40° to +60° C -40° to +140° F

Bracket Specifications

Material Type	Hot Dipped Galvanized Steel
Mechanical Tilt (Degree)	-4 – 16
Mounting Type	Pipe Mount
Mounting pole diameter	25 mm – 89 mm 1¼ in – 3½ in
Antenna-to-Pipe Distance	131 mm 5 in
Bracket-to-Bracket Distance	490 mm 19 in

ANTENNAS ENGINEERED & MANUFACTURED TO EXCEED INDUSTRY STANDARDS

Product Data Sheet

1-855-276-(KPPA) 5772 or 780-702-7577
 info@kppperformance.ca
 15497 117 Ave, Edmonton, AB T5M3X4, Canada
 5000 W. Proviso Dr, Unit #2 Melrose Park, IL 60163, USA



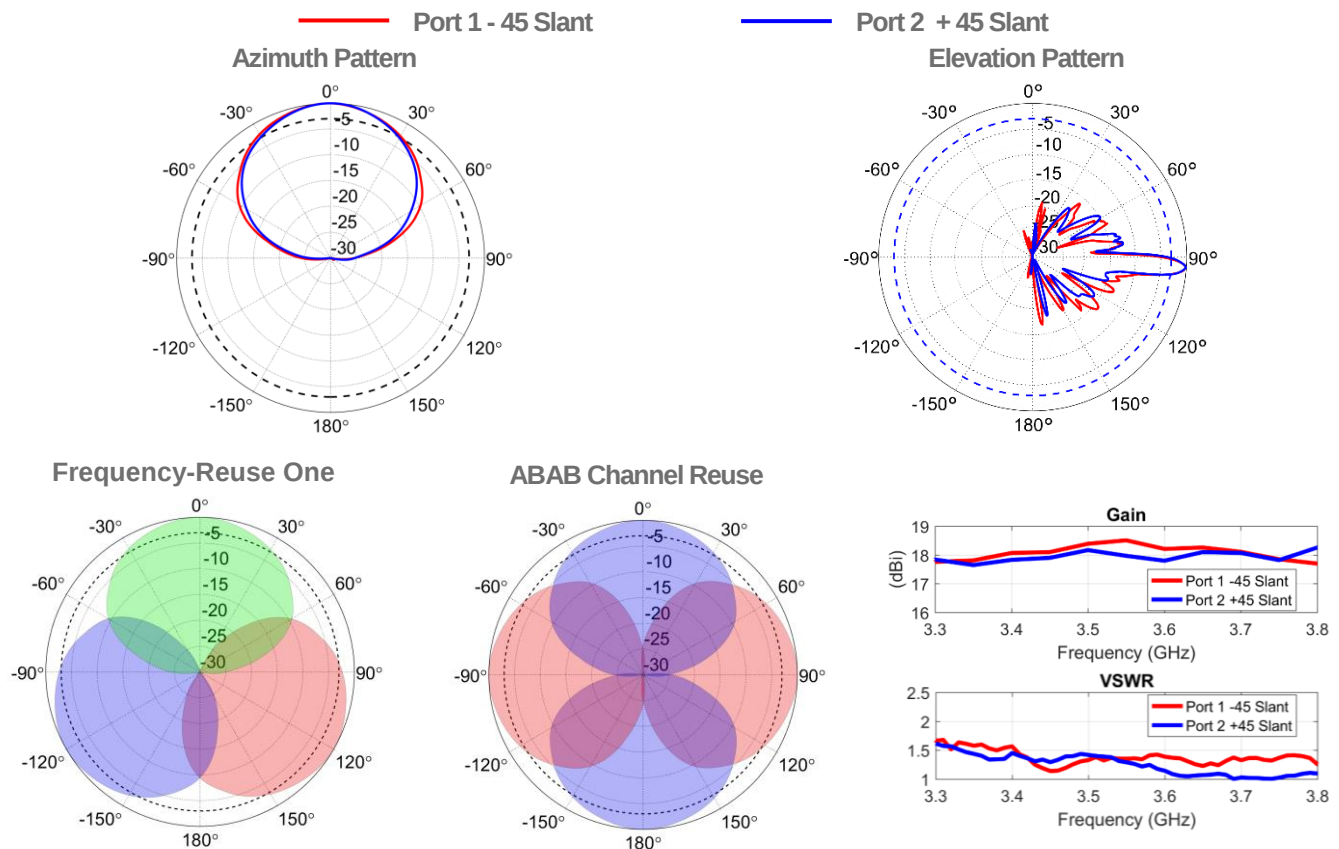
Sector Dimensions

Length	736 mm	29 in
Width	170 mm	7 in
Height	89 mm	3.5 in
Net Weight, with brackets	4.5 kg	10 lb

Package Dimensions

Length	810 mm	32 in
Width	250 mm	10 in
Height	200 mm	8 in
Net Weight	6.8 kg	15 lb

Graphical Data



Appendix

HPBW: Average and variation of the antenna's 3dB beamwidth (half power beamwidth) in its horizontal (Azimuth) or vertical (Elevation) pattern.
 Horizontal Squint: Angle in the antenna's azimuth pattern in which the maximum gain occurs. Reported is the maximum variation in the frequency band.
 Electrical Downtilt: Angle in the antenna's elevation pattern in which the maximum gain occurs.
 Gain: Antenna's average gain and variation in each frequency band.
 Front to Back Ratio @ 180°: Difference between the antenna's maximum gain and the gain directly behind the antenna ($\theta=180^\circ$).
 Front to Back Ratio @ $180^\circ \pm 30^\circ$: Difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over $\pm 30^\circ$ angles.
 Cross polarization at boresight: Difference between the co-polarization and cross-polarization gain at 0° (boresight).
 Cross-polarization Ratio over HPBW (dB): Maximum difference between the co-polarization and cross-polarization gain across the sector's HPBW.

ANTENNAS ENGINEERED & MANUFACTURED TO EXCEED INDUSTRY STANDARDS

Nova-233 G2 Outdoor FDD/TDD eNB



INTRODUCTION

This Baicells Nova-233 generation 2 (G2) eNodeB is an outdoor LTE FDD/TDD base station with 2*1W output power (2x2 MIMO with 1W output each channel). The unit is compact, lightweight, and easy to deploy.

The second-generation Nova-233 incorporates a vast set of enhancements requested by customers, such as SFP, port rearrangement for easier weatherproofing, lower weight, and even improved mounting hardware.

FEATURES

- Standard LTE network modes:
 - FDD bands 1/3/5/7/13/28A
 - TDD bands 38/39/40/41/42/43/48 and customized
- Peak rate (20 MHz):
 - FDD: 150 Mbps DL, 50 Mbps UL
 - TDD: 112 Mbps DL, 20 Mbps UL
- Max 255 (FDD) and 96 (TDD) concurrent users
- Supports 5/10/15/20 MHz bandwidth operation
- Super slim, beautiful design suitable for private and public deployments

- Any IP based backhaul can be used, including public transmission
- Lower power consumption to reduce OPEX
- Plug-and-play with SON capabilities
- IoT with most EPC vendors
- Excellent NLOS coverage performance

HARDWARE SPECIFICATIONS

LTE Mode	FDD/TDD
Frequency Bands	FDD: Bands 1/3/5/7/13/28A TDD: Bands 38/39/40/41/42/43/48 and customized
Channel Bandwidth	FDD Bands 1/3/7: 5/10/15/20 MHz FDD Bands 5/13/28A: 5/10 MHz TDD: 5/10/15/20 MHz
Max Output Power	30 dBm / antenna
Receive Sensitivity	FDD Band 7: -100 dBm FDD Bands 1/3: -101 dBm FDD Bands 5/13/28A: -102 dBm TDD Bands 42/43/48: -100 dBm TDD Bands 38/39/40/41: -101 dBm
Synchronization Mode	• Network listening (FDD only) • GPS • 1588v2 (TDD only)
Backhaul Mode	One optical and one RJ-45 Ethernet interface (1 GE)
MIMO	DL: 2*2

Interfaces	1 optical (SFP) port and 1 RJ-45 Ethernet Interface (1 GE)
Dimensions (HxWxD)	FDD: 13.7 x 9.6 x 3 Inches 345 x 245 x 77 millimeters TDD: 8.9 x 12 x 2.9 inches 227 x 305 x 74 millimeters
Installation Method	Pole or wall mount
Antenna	External high-gain antenna
Power Consumption	FDD: < 70W TDD: < 45W
Power Supply	+/- 48V DC, AC adaptor (multi-national standards)
Weight	FDD: 12.8 lbs (5.8 kg) TDD: 9.7 lbs (4.4 kg)

Note 1 : Different models support different frequencies

Note 2: The test method of receiving sensitivity is proposed by the 3GPP TS 36.104, which is based on 5 MHz bandwidth, FRC A1-3 in Annex A.1 (QPSK, R=1/3, 25RB) standard.

SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 9	
Peak Rate	FDD	20 MHz: DL 150 Mbps, UL 50 Mbps 10 MHz: DL 75 Mbps, UL 25 Mbps
	TDD	20 MHz: SA1: DL 80 Mbps, UL 20 Mbps SA2: DL 112 Mbps, UL 14 Mbps 10 MHz: SA1: DL 40 Mbps, UL 14 Mbps SA2: DL 55 Mbps, UL 7 Mbps
User Capacity	Maximum 255 (FDD) and 96 (TDD) concurrent users	
QoS Control	3GPP standard QCI	
Modulation	FDD UL: QPSK, 16QAM FDD DL: QPSK, 16QAM, 64QAM TDD UL: QPSK, 16QAM, 64QAM TDD DL: QPSK, 16QAM, 64QAM	
Voice Solution	CSFB, VoLTE, eSRVCC	
Traffic Offload	Local IP Access (LIPA) Selected IP Traffic Offload (SIPTO)	
SON	Self-Organizing Network - Automatic setup - Automatic Neighbor Relation (ANR) - PCI confliction detection	
Spectrum Scanning (TDD)	Supported	

Nova-233 G2 Outdoor FDD/TDD Data Sheet
www.baicells.com • +1 (888) 502-5585

UL Interference Detection	Supported
RAN Sharing	Supported
Network Management Interface	TR069 interface protocol
MTBF	≥ 150000 hours
MTTR	≤ 1 hour
Maintenance	Remote/local maintenance Online status management Performance statistics Fault management Local or remote software upgrade Logging Connectivity diagnosis Automatic start and configuration Alarm reporting KPI recording User information tracing Signaling trace (TDD)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°F to 131°F / -40°C to 55°C
Storage Temperature	-49°F to 158°F / -45°C to 70°C
Humidity	5% to 95%
Atmospheric Pressure	70 kPa to 106 kPa
Ingress Protection Rating	IP66
Power Interface Lightning Protection	Differential mode: ±10 KA Common mode: ±20 KA

GLOBAL PART NUMBER

mBS1105	Nova-233 1W Gen 2 eNB Bands 42/43
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PowerBeam® AC GEN2

5 GHz High Performance airMAX® ac Bridge

Models: PBE-5AC-Gen2, PBE-5AC-ISO-Gen2

Highly Efficient Antenna Beam Performance

Up to 450+ Mbps Throughput

Dedicated Wi-Fi Radio for Management



Overview

Ubiquiti Networks launches the latest generation of airMAX® CPE (Customer Premises Equipment), the PowerBeam® 5AC Gen 2, with dedicated Wi-Fi management.

Improved Noise Immunity

The PowerBeam 5AC Gen 2 directs RF energy in a tighter beamwidth. With the focus in one direction, the PowerBeam 5AC Gen 2 blocks or spatially filters out noise, so noise immunity is improved. This feature is especially important in an area crowded with other RF signals of the same or similar frequency.

Integrated Design

Ubiquiti's InnerFeed® technology integrates the radio into the feedhorn of an antenna, so there is no need for a cable. This improves performance because it eliminates cable losses.

Featuring high performance and innovative design, the PowerBeam 5AC Gen 2 is versatile and cost-effective to deploy.

Software

airOS® 8

airOS® 8 is the revolutionary operating system for Ubiquiti® airMAX ac products.

Powerful Wireless Features

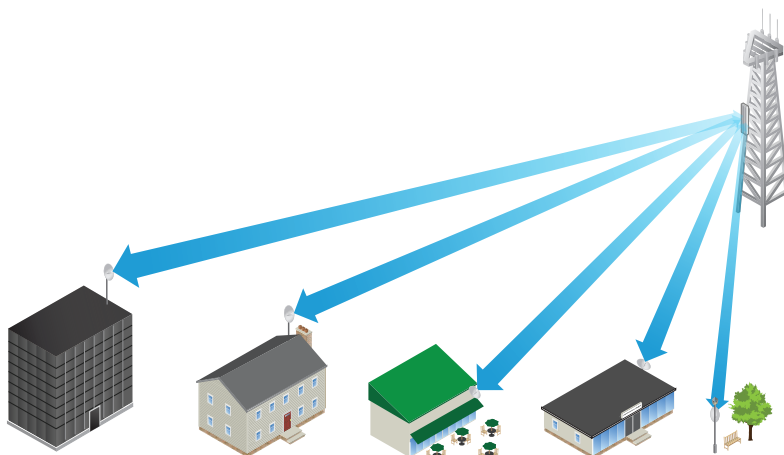
- Access Point PtMP airMAX Mixed Mode
- airMAX ac Protocol Support
- Long-Range PtP Link Mode
- Selectable Channel Width
 - PtP: 10/20/30/40/50/60/80 MHz
 - PtMP: 10/20/30/40 MHz
- Automatic Channel Selection
- Transmit Power Control: Automatic/Manual
- Automatic Distance Selection (ACK Timing)
- Strongest WPA2 Security

Usability Enhancements

- airMagic® Channel Selection Tool
- Redesigned User Interface
- Dynamic Configuration Changes
- Instant Input Validation
- HTML5 Technology
- Optimization for Mobile Devices
- Detailed Device Statistics
- Comprehensive Array of Diagnostic Tools, including RF Diagnostics and airView® Spectrum Analyzer

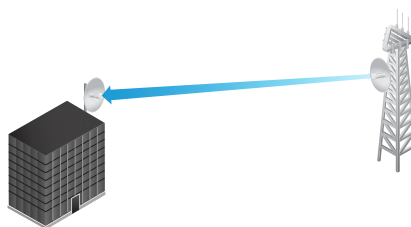
Application Examples

PtMP Client Links

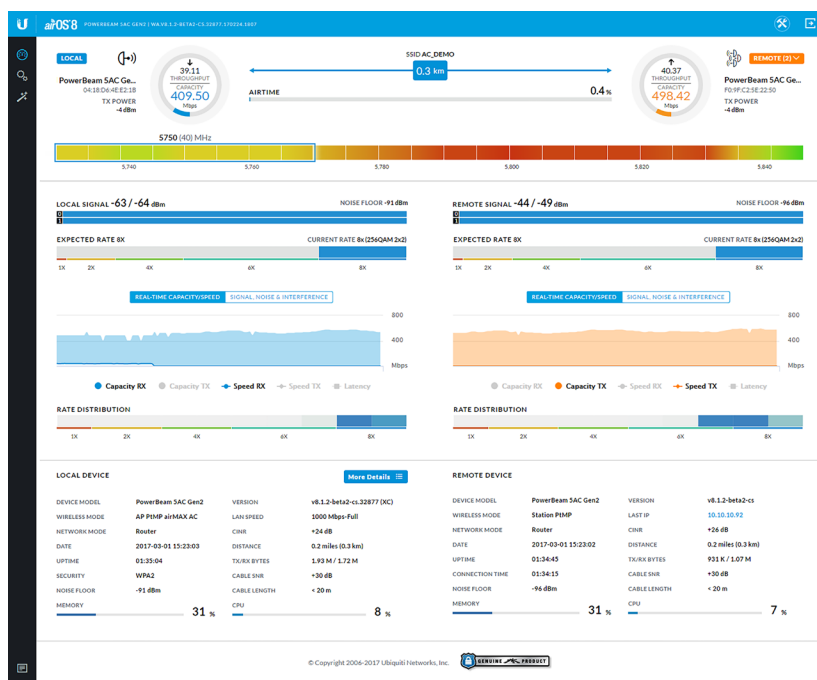


The PowerBeam 5AC Gen 2 used as a CPE device for each client in an airMAX Point-to-MultiPoint (PtMP) network.

PtP Link



Use a PowerBeam 5AC Gen 2 on each side of a Point-to-Point (PtP) link.



Advanced RF Analytics

airMAX ac devices feature a multi-radio architecture to power a revolutionary RF analytics engine.

An independent processor on the PCBA powers a second, dedicated radio, which persistently analyzes the full 5 GHz spectrum and every received symbol to provide you with the most advanced RF analytics in the industry.

Real-Time Reporting

airOS 8 displays the following RF information:

- Persistent RF Error Vector Magnitude (EVM) constellation diagrams
- Signal, Noise, and Interference (SNI) diagrams
- Carrier to Interference-plus-Noise Ratio (CINR) histograms

Spectral Analysis

airView allows you to identify noise signatures and plan your networks to minimize noise interference. airView performs the following functions:

- Constantly monitors environmental noise
- Collects energy data points in real-time spectral views
- Helps optimize channel selection, network design, and wireless performance

In airView, there are three spectral views, each of which represents different data: waveform, waterfall, and ambient noise level.

airView provides powerful spectrum analyzer functionality, eliminating the need to rent or purchase additional equipment for conducting site surveys.

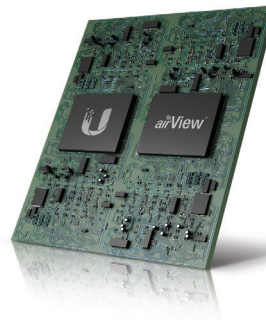
UNMS App

The PowerBeam 5AC Gen 2 integrates a separate Wi-Fi radio for fast and easy setup using your mobile device.

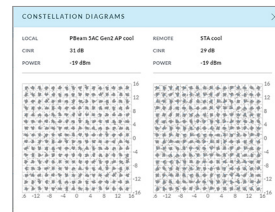
Accessing airOS via Wi-Fi

The UNMS™ app provides instant accessibility to the airOS configuration interface and can be downloaded from the App Store® (iOS) or Google Play™ (Android). UNMS allows you to set up, configure, and manage the PowerBeam 5AC Gen 2 and offers various configuration options once you're connected or logged in.

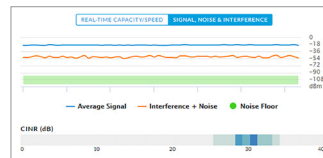
Multi-Radio Architecture



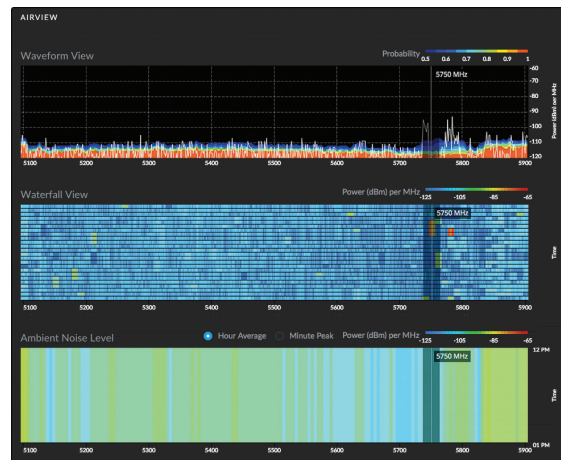
Constellation Diagrams



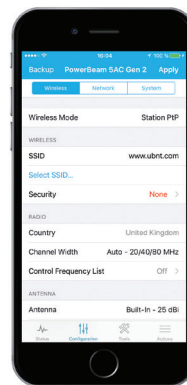
SNI Diagram and CINR Histogram



Dedicated Spectral Analysis



UNMS Configuration Screen



Technology



Unlike standard Wi-Fi protocol, Ubiquiti's Time Division Multiple Access (TDMA) airMAX protocol allows each client to send and receive data using pre-designated time slots scheduled by an intelligent AP controller.

This time slot method eliminates hidden node collisions and maximizes airtime efficiency, so airMAX technology provides performance improvements in latency, noise immunity, scalability, and throughput compared to other outdoor systems in its class.

Intelligent QoS Priority assigned to voice/video for seamless streaming.

Scalability High capacity and scalability.

Long Distance Capable of high-speed, carrier-class links.

Superior Performance

The next-generation airMAX ac technology boosts the advantages of our proprietary TDMA protocol.

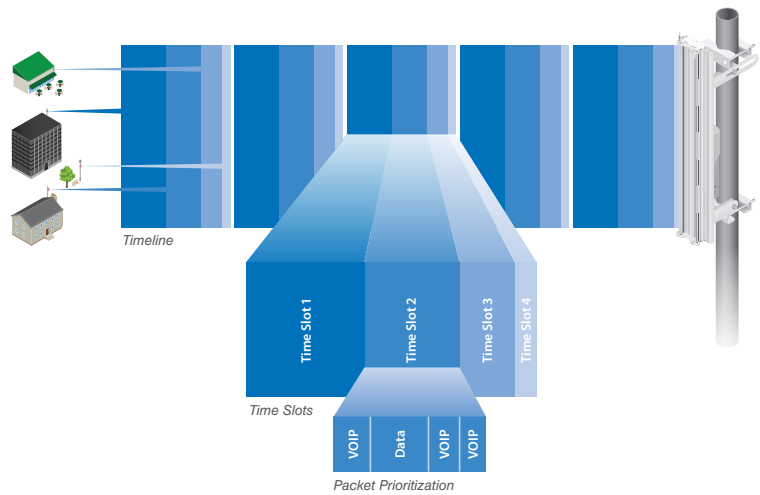
Ubiquiti's airMAX engine with custom IC dramatically improves TDMA latency and network scalability. The custom silicon provides hardware acceleration capabilities to the airMAX scheduler, to support the high data rates and dense modulation used in airMAX ac technology.

Throughput Breakthrough

airMAX ac supports high data rates, which require dense modulation: 256QAM – a significant increase from 64QAM, which is used in airMAX.

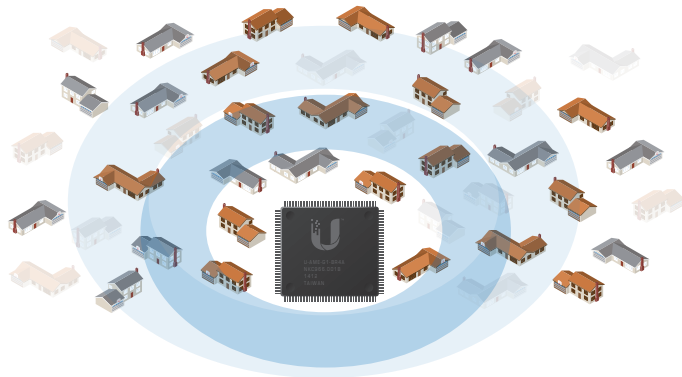
With their use of proprietary airMAX ac technology, airMAX ac products supports up to 450+ Mbps real TCP/IP throughput – up to triple the throughput of standard airMAX products.

airMAX ac TDMA Technology

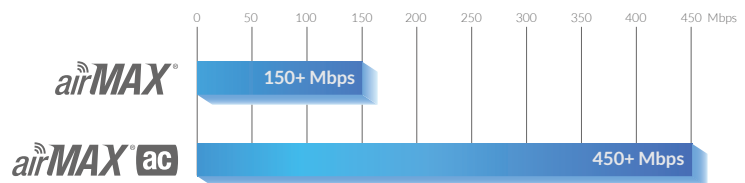


Up to 100 airMAX ac stations can be connected to an airMAX ac Sector; four airMAX ac stations are shown to illustrate the general concept.

airMAX Network Scalability



Superior Throughput Performance



Hardware Overview

The PowerBeam 5AC Gen 2 supports up to 450+ Mbps real TCP/IP throughput and features improved surge protection.

Innovative Mechanical Design

- **Built-in mechanical tilt** Mounting bracket conveniently offers elevation adjustments: $\pm 20^\circ$ tilt.
- **Quick assembly** Minimal fasteners simplify installation.
- **Easy removal** The antenna feed can be detached with the push of a button.

PBE-5AC-Gen2

The dish reflector design of the PBE-5AC-Gen2 makes it an ideal CPE for deployments requiring maximum performance. A protective radome is available as an optional accessory for the PBE-5AC-Gen2.

PowerBeam®
400 mm Radome

Model	Frequency	PBE-5AC-Gen2	Dish Reflector
PBE-RAD-400	5 GHz	✓	400 mm



PBE-5AC-ISO-Gen2

The PBE-5AC-ISO-Gen2 offers a rear housing with a metal-plated interior, designed to enhance RF shielding. Additionally, an included protective radome shields the PowerBeam 5AC ISO Gen 2 from nature's harshest elements.

Breakthrough RF Isolation

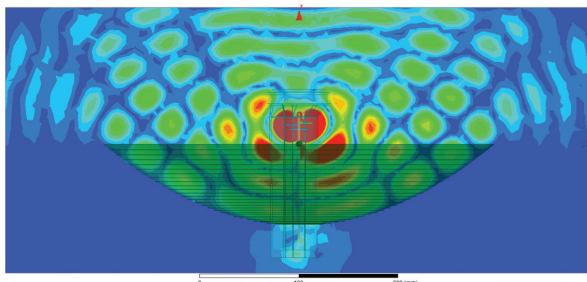
The integrated isolator design spatially filters out interference, so the PBE-5AC-ISO-Gen2 delivers improved noise immunity in co-location deployments.

Compare the two near-field plots below, and note the superior performance of the integrated RF isolator.

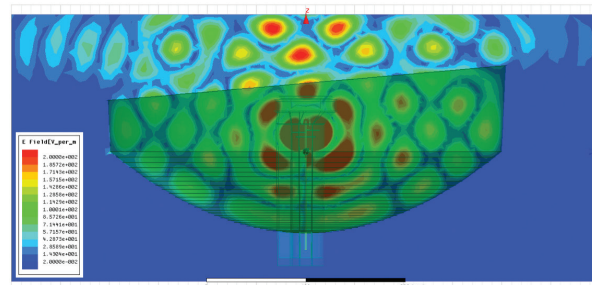
Both near-field plots are displayed in watts and use a linear scale. The strength of the electromagnetic field is color-coded:

- **Red:** Highest strength
- **Green:** Medium strength
- **Indigo:** Lowest strength

Without Integrated RF Isolator



With Integrated RF Isolator



Specifications

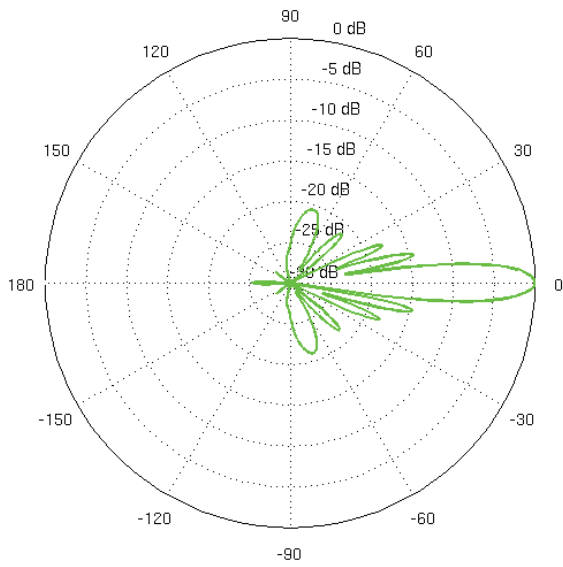
PBE-5AC-Gen2		
Dimensions	420 x 420 x 230 mm (16.54 x 16.54 x 9.06")	
Weight	2.22 kg (4.89 lbs)	
Power Supply	24V, 0.5A Gigabit PoE Adapter (Included)	
Max. Power Consumption	8.5W	
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 Return)	
Supported Voltage Range	20 to 26VDC	
Gain	25 dBi	
Networking Interface	(1) 10/100/1000 Ethernet Port	
Processor Specs	MIPS 74Kc	
Memory	64 MB	
LEDs	Power, Ethernet, (4) Signal Strength	
Channel Sizes	PtP Mode	PtMP Mode
	10/20/30/40/50/60/80 MHz	10/20/30/40 MHz
Enclosure Characteristics	Antenna Feed	Dish Reflector
	Outdoor UV Stabilized Plastic	Powder-Coated SPCC
Mounting	Pole-Mounting Kit (Included)	
Wind Loading	380 N @ 200 km/h (85.4 lbf @ 125 mph)	
Wind Survivability	200 km/h (125 mph)	
ESD/EMP Protection	Air: ± 24 kV, Contact: ± 24 kV	
Operating Temperature	-40 to 70° C (-40 to 158° F)	
Operating Humidity	5 to 95% Noncondensing	
RoHS Compliance	Yes	
Salt Fog Test	IEC 68-2-11 (ASTM B117), Equivalent: MIL-STD-810 G Method 509.5	
Vibration Test	IEC 68-2-6	
Temperature Shock Test	IEC 68-2-14	
UV Test	IEC 68-2-5 at 40° C (104° F), Equivalent: ETS 300 019-1-4	
Wind-Driven Rain Test	ETS 300 019-1-4, Equivalent: MIL-STD-810 G Method 506.5	
Certifications	CE, FCC, IC	

Operating Frequency (MHz)				
Worldwide	5150 - 5875			
USA	U-NII-1: 5150 - 5250	U-NII-2A: 5250 - 5350 MHz	U-NII-2C: 5470 - 5725 MHz	U-NII-3: 5725 - 5850

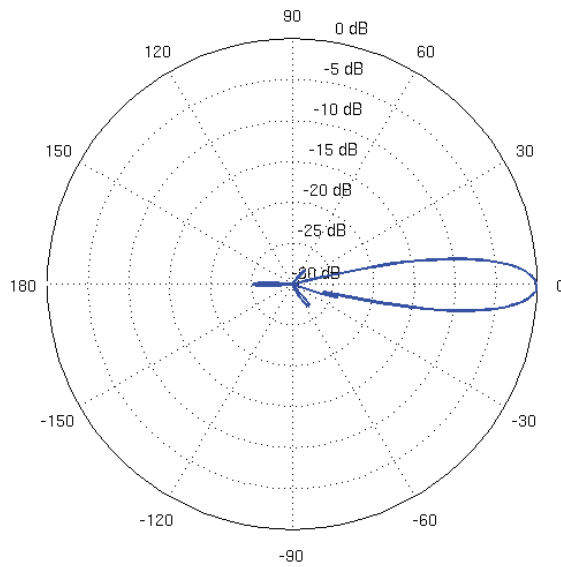
Management Radio (MHz)	
Worldwide	2412 - 2472
USA	2412 - 2462

PBE-5AC-Gen2 Output Power: 25 dBm							
TX Power Specifications				RX Power Specifications			
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
airMAX ac	1x BPSK (½)	25 dBm	± 2 dB	airMAX ac	1x BPSK (½)	-96 dBm Min.	± 2 dB
	2x QPSK (½)	25 dBm	± 2 dB		2x QPSK (½)	-95 dBm	± 2 dB
	2x QPSK (¾)	25 dBm	± 2 dB		2x QPSK (¾)	-92 dBm	± 2 dB
	4x 16QAM (½)	25 dBm	± 2 dB		4x 16QAM (½)	-90 dBm	± 2 dB
	4x 16QAM (¾)	25 dBm	± 2 dB		4x 16QAM (¾)	-86 dBm	± 2 dB
	6x 64QAM (⅔)	25 dBm	± 2 dB		6x 64QAM (⅔)	-83 dBm	± 2 dB
	6x 64QAM (¾)	24 dBm	± 2 dB		6x 64QAM (¾)	-77 dBm	± 2 dB
	6x 64QAM (¾)	23 dBm	± 2 dB		6x 64QAM (¾)	-74 dBm	± 2 dB
	8x 256QAM (¾)	21 dBm	± 2 dB		8x 256QAM (¾)	-69 dBm	± 2 dB
	8x 256QAM (¾)	21 dBm	± 2 dB		8x 256QAM (¾)	-65 dBm	± 2 dB

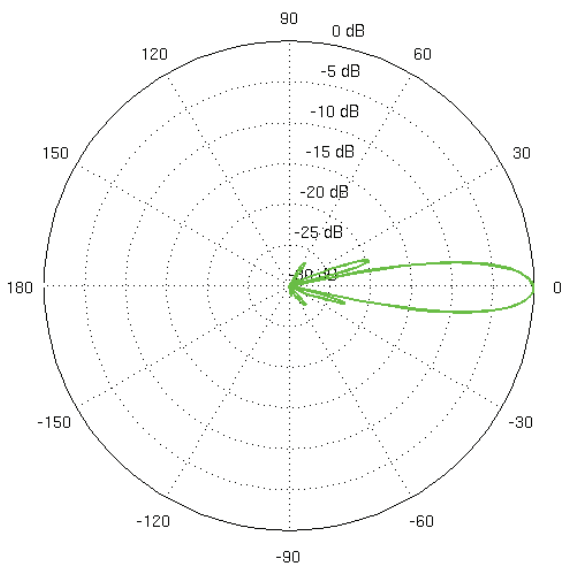
Vertical Azimuth



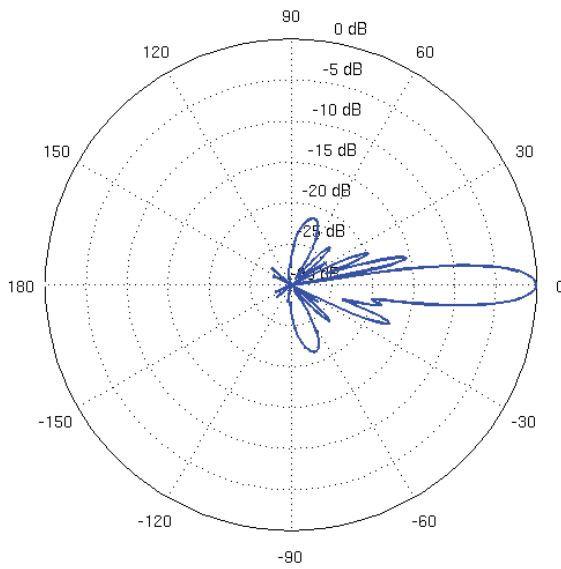
Vertical Elevation



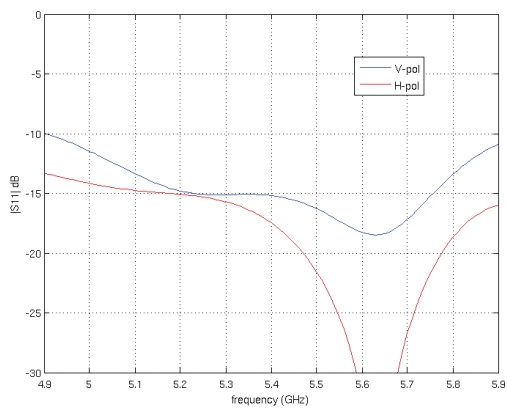
Horizontal Azimuth



Horizontal Elevation



Return Loss



Specifications

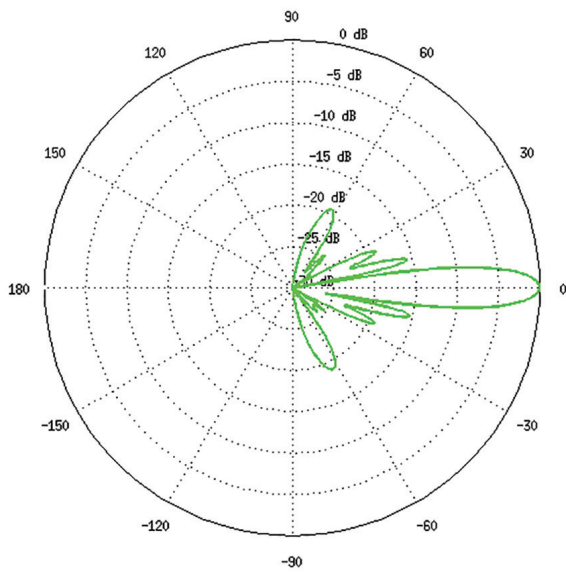
PBE-5AC-ISO-Gen2		
Dimensions	459 x 459 x 261 mm (18.07 x 18.07 x 10.28")	
Weight (Mount Included)	3.22 kg (7.10 lbs)	
Power Supply	24V, 0.5A Gigabit PoE Adapter (Included)	
Max. Power Consumption	8.5W	
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 Return)	
Supported Voltage Range	20 to 26VDC	
Gain	25 dBi	
Networking Interface	(1) 10/100/1000 Ethernet Port	
Processor Specs	MIPS 74Kc	
Memory	64 MB	
LEDs	Power, Ethernet, (4) Signal Strength	
Channel Sizes	PtP Mode	PtMP Mode
	10/20/30/40/50/60/80 MHz	10/20/30/40 MHz
Enclosure Characteristics	Antenna Feed	Dish Reflector
	Outdoor UV Stabilized Plastic	Powder-Coated SPCC
Mounting	Pole-Mounting Kit (Included)	
Wind Loading	559 N @ 200 km/h (125.7 lbf @ 125 mph)	
Wind Survivability	200 km/h (125 mph)	
ESD/EMP Protection	Air: ± 24 kV, Contact: ± 24 kV	
Operating Temperature	-40 to 70° C (-40 to 158° F)	
Operating Humidity	5 to 95% Noncondensing	
RoHS Compliance	Yes	
Salt Fog Test	IEC 68-2-11 (ASTM B117), Equivalent: MIL-STD-810 G Method 509.5	
Vibration Test	IEC 68-2-6	
Temperature Shock Test	IEC 68-2-14	
UV Test	IEC 68-2-5 at 40° C (104° F), Equivalent: ETS 300 019-1-4	
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Certifications	CE, FCC, IC	

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Worldwide	5150 - 5875			
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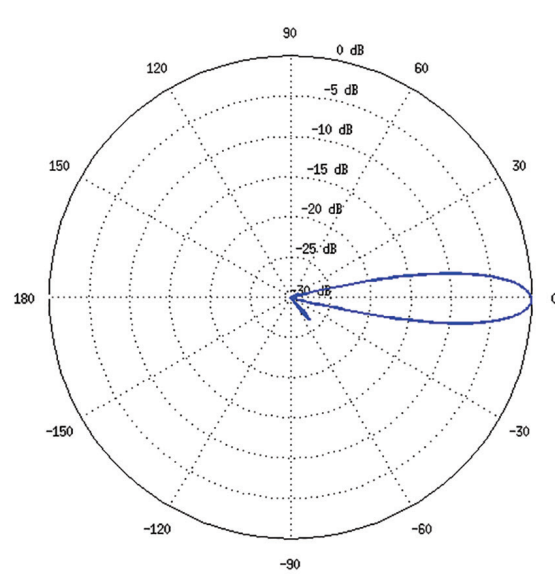
Management Radio (MHz)	
Worldwide	2412 - 2472
USA	2412 - 2462

PBE-5AC-ISO-Gen2 Output Power: 24 dBm							
TX Power Specifications				RX Power Specifications			
Modulation	Data Rate	Avg. TX	Tolerance	Modulation	Data Rate	Sensitivity	Tolerance
airMAX ac	1x BPSK (½)	24 dBm	± 2 dB	airMAX ac	1x BPSK (½)	-96 dBm Min.	± 2 dB
	2x QPSK (½)	24 dBm	± 2 dB		2x QPSK (½)	-95 dBm	± 2 dB
	2x QPSK (¾)	24 dBm	± 2 dB		2x QPSK (¾)	-92 dBm	± 2 dB
	4x 16QAM (½)	24 dBm	± 2 dB		4x 16QAM (½)	-90 dBm	± 2 dB
	4x 16QAM (¾)	24 dBm	± 2 dB		4x 16QAM (¾)	-86 dBm	± 2 dB
	6x 64QAM (⅔)	23 dBm	± 2 dB		6x 64QAM (⅔)	-83 dBm	± 2 dB
	6x 64QAM (¾)	23 dBm	± 2 dB		6x 64QAM (¾)	-77 dBm	± 2 dB
	6x 64QAM (⅝)	22 dBm	± 2 dB		6x 64QAM (⅝)	-74 dBm	± 2 dB
	8x 256QAM (¾)	20 dBm	± 2 dB		8x 256QAM (¾)	-69 dBm	± 2 dB
	8x 256QAM (⅝)	20 dBm	± 2 dB		8x 256QAM (⅝)	-65 dBm	± 2 dB

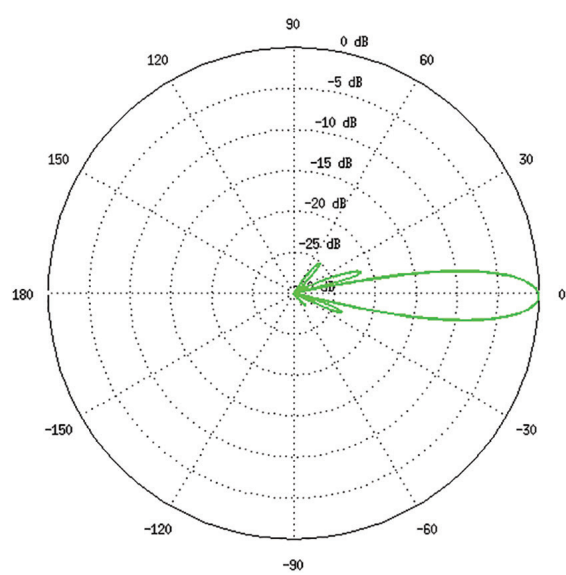
Vertical Azimuth



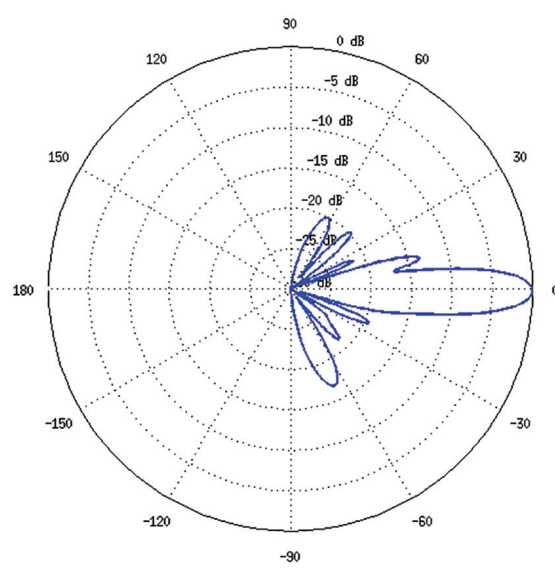
Vertical Elevation



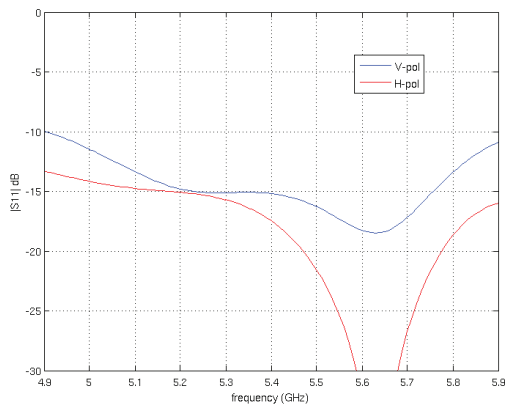
Horizontal Azimuth



Horizontal Elevation



Return Loss



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To: Mayor and City Council
From: Mark Desotell, Director of Administrative Services
Date: April 18, 2018
Re: Request to Fill Upcoming Street Commissioner Position Vacancy due to Retirement

I received a letter providing a notice of anticipated retirement from our current Street Commissioner, Bob Piskula. We wish him the very best in the coming years. Bob has provided long-standing quality services to the citizens of Antigo and has been an exemplary employee.

This position provides key management directives to a sizeable workforce and oversees the repair and maintenance of highly valued infrastructure investments. The position is responsible for the oversight of streets, water, sanitary and storm distribution systems, winter maintenance, signing and many additional components of a strong public works program.

It is my recommendation that a replacement for this position first be considered by the scheduling of interviews with qualified/interested internal candidates; if a suitable candidate is not found I am requesting permission to seek external candidates accordingly. This approach creates the opportunity to acknowledge the commitment and skill development of those employees already serving the City of Antigo.

If you have any questions, please feel free to contact me.



To: Mayor and City Council
From: Mark Desotell, Director of Administrative Services
Date: April 18, 2018
Re: Recommended Updates to the Street Commissioner Job Description

With the announcement of the retirement of our Street Commissioner, Bob Piskula, an opportunity to make necessary updates to the existing job description were addressed. These changes were developed in the same format as other recent job description updates while serving to bring consistency to the overall format.

Additionally, the essential duties and responsibilities were reviewed to assure that they more closely match current expectations. Because the overall format for the proposed job description has significantly changed (when compared to the previous document) both versions are being provided for your reference.

The recommended pay grade and exempt status of the position remain without change in the updated version of the document.

POSITION DESCRIPTION

Class Title: Street Commissioner
 Department: Public Works
 Division: Streets
 Date: 9/4/98

Job Code Number:
 Grade Number: 9
 Union: Exempt
 Location: 1404 Smith Ave

GENERAL PURPOSE

Performs complex supervisory, administrative and professional work in planning, organizing, directing, and supervising street and right-of-way maintenance, recycling & solid waste operations, and assist the City Inspector in nuisance abatement.

SUPERVISION RECEIVED

Works under the direction of the Public Works Director and policies adopted by the Common Council.

SUPERVISION EXERCISED

Exercises supervision over clerical, administrative, and personnel as assigned to the street department and solidwaste operations.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Determines work procedures, prepares work schedules, and expedites workflow.

Issues written and oral instructions.

Ensures work place safety training is conducted and safety practices are implemented within the department.

Assigns duties and examines work for exactness, neatness, and conformance to policies and procedures.

Studies and standardizes department policies and procedures to improve efficiency and effectiveness of operations.

Promotes and maintains harmony among workers and resolves grievances.

Prepares composite reports from individual reports of subordinates for distribution to the Public Works Director, City Administrator, City Council, or agencies of the State as directed.

Directs the maintenance and/or construction of sanitary sewer and storm water collection sewers.

Receives service complaints and citizen input.

Prepares and documents budget request; administers adopted budget in assigned area of responsibility.

Knowledgeable and determines applicable codes, regulations, and requirements for assigned projects.

PERIPHERAL DUTIES

Exercises supervision and direction for seasonal projects, including: weed control, snow & ice removal, street sweeping, tree & brush removal, seasonal/holiday decorations installation and removal, flood control, and other duties as identified by local ordinance.

Participation in the development or update of a Street Department Comprehensive Plan, the Capital Improvement Program, and other plans involving the Street Department.

Maintains contact with consulting engineers, construction project engineers, City, County, State and Federal agencies, professional and technical groups and the general public regarding department activities and services as necessary.

Operation of heavy equipment or truck in special or emergency conditions.

Duties as assigned by the Public Works Director, City Administrator, Mayor, or Common Council

DESIRED MINIMUM QUALIFICATIONS

Education and Experience:

- (A) Graduation from a 2 year college or vocational education program with an emphasis in pre-civil engineering, environmental sciences, construction management, or a closely related field; or
- (B) Minimum of six years previous public works experience or at least five years in road construction project management; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Thorough knowledge of principles, practices, methods and equipment applicable to modern street maintenance, construction, and solid waste management; knowledge of applicable policies, laws, and regulations affecting street maintenance and solid waste activities;
- (B) Skill in operating the listed tools and equipment.
- (C) Ability to communicate effectively, orally and in writing, with employees, consultants, other governmental agency representatives, City officials and the general public; Ability to conduct necessary research and compile comprehensive reports.

SPECIAL REQUIREMENTS

- (A) Must possess a valid State driver's license or have the ability to obtain one prior to employment.
- (B) Must be able to complete general first aid and CPR training, and obtain CPR certification within 6 months and maintain re-certification.
- (C) Must possess a Commercial Drivers License or ability to obtain within 90 days of employment.

TOOLS AND EQUIPMENT USED

Personal computer, including word processing, spreadsheet, and data base; motor vehicle; phone; radio; fax and copy machines.

PHYSICAL DEMANDS

While performing the duties of this job, the employee is frequently required to stand, walk, use hands to finger, handle, feel or operate objects, tools, or controls, and reach with hands and arms. The employee is occasionally required to sit, climb or balance, stoop, kneel, crouch or crawl, talk or hear, and smell.

Work place setting is balanced between office and outdoor field activities. Outdoor or field work is required in the inspection of construction sites, facilities or operations. Hand-eye coordination is necessary to operate computers and various pieces of equipment.

The employee must be capable of lifting and/or moving up to 50 pound. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts and in high, precarious places and is occasionally exposed to wet and/or humid conditions, fumes or airborne particles, toxic or caustic chemicals, risk of electrical shock, and vibration.

The noise level in the work environment is usually quiet to moderate in office settings, and loud in the field.

SELECTION GUIDELINES

Formal application, rating of education and experience; oral interview and reference check; job related tests may be required.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Approval: _____
Supervisor

Approval: _____
Employee

Effective Date:

Revision History: 1/24/94

POSITION DESCRIPTION

Class Title: Street Commissioner
 Department: Street
 Location: City Hall
 Date: 3/29/18

Pay Grade: 11
 FLSA Status: Exempt
 Position Status: Regular Full Time

GENERAL PURPOSE

This exempt managerial position performs complex professional and administrative work associated with delivery of public works related assignments. Along with the administrative responsibility for the repair and maintenance of the water, sanitary and storm sewer distribution systems this position also assures the proper care and maintenance of streets, bridges, municipal parking lots, snow removal operations, fleet management, facility care and other similar municipal activities. This position is expected to implement and direct a comprehensive public works program that will assure sound planning, construction and maintenance operations while delivering responsive service to the general public.

SUPERVISION RECEIVED

An employee in this position works under the broad policy guidance of the Mayor & the Common Council and the direct supervision of the Director of Administrative Services. Responsibly reports to the Public Works Committee regarding the development of agenda items providing the information and recommendations necessary to contemplate a decision.

SUPERVISION EXERCISED

This position provides managerial direction/supervision over assigned personnel and support staff either directly or through subordinates. This position is also expected to coordinate activities with other departments, staff and agencies as needed. Supervision is exercised over all other Street Department managers within the scope of assigned duties. Coordinate with the City's third-party consultant to assure success related to the operation/maintenance of the water and wastewater treatment plants.

ESSENTIAL DUTIES AND RESPONSIBILITIES

General

- Coordinate with Human Resources in all facets of employment practices including the hiring process
- Plan and organize workloads, procedures, schedules and staff assignments to expedite workflows.
- Recommend, implement and participate in an acceptable on-call program for 24/7 emergency coverage
- Create/maintain a mutually respectful/empowering culture encouraging new ideas and ongoing professional growth;
- Provide leadership and direction in the development of short and long range goals.
- Train/motivate/evaluate staff progress and direct changes; promote harmony and resolve interpersonal issues.
- Ensures work place safety training is conducted and that safety practices are implemented.
- Provide supervision to subordinates in performing duties and reviews work for completeness and conformance.
- Standardizes policies and procedures to improve effectiveness of operations.
- Investigate/oversee the resolution of, questions and/or complaints from the public regarding all aspects of the Street Department and pertaining to assigned duties; respond either verbally or in writing depending upon the situation.
- Prepare reports and make presentations to supervisors, boards, commissions, civic groups, staff, and the public.
- Participate in professional organizations and programs; maintain knowledge of new trends and innovations.
- Gather information, apply and maintain reporting requirements for grants, studies, reports, and recommendations.
- Research, discuss with appropriate personnel, suggest, and implement software upgrades.
- Maintain prompt/predictable/regular physical attendance; lawfully operate designated motor vehicles/equipment
- Maintain the ability to travel throughout and enter all different properties in the jurisdiction.
- Provide truthful/accurate written and verbal communications; advise other department heads in areas of expertise.
- Respond to and resolve difficult and sensitive inquiries and complaints, including necessary research and analysis.
- Determine applicable codes, regulations and requirements for projects and maintenance efforts.
- Prepare and document budget requests; administer adopted budget in compliance with stated goals.
- Establish Standard Operating Guidelines (SOG's) relative to the implementation of various programs

Streets

- Exercise supervision and direction over staff, materials and equipment in order to complete seasonal project assignments including but not limited to mowing, weed control, street sweeping, tree/brush removal.
- Responsible for timely and adequate removal of snow and ice from City Streets and alleys.
- Work in conjunction with the Surveyor/Project Manager to assure timely delivery of Plans, Specifications and Estimates for both in-house and consultant based projects; maintain communication during construction projects.
- Monitor and implement flood control measures associated with the Antigo Lake Basins; maintain 4th Ave. dam.
- Coordinate the control/removal of cattails & invasive species along the Antigo Lake basins with WDNR & PRC.
- Assist in the preparation and maintenance of a multi-year Roadway Improvement Plan
- Assess equipment needs relative to type, life-cycle and costs; participate in the development of a CIP program.
- Create request for proposal (RFP) for services, equipment and material purchases; provide recommendations.
- Propose the annual Street Department operating and capital budgets working with the Director of Administrative Services and the Clerk-Treasurer/Finance Director to ensure effective and efficient use of budgeted funds, personnel, materials, facilities, and time.
- Perform cost control activities monitoring municipal revenues and expenditures to assure sound fiscal control.
- Work with the Clerk-Treasurer/Finance Director, auditors, regulatory, and other personnel in the review of city records and to support the annual financial audit.
- Manage the expenditure of project funds in accordance with Local, State, and Federal regulations.
- Implement and maintain a program assuring improvements and maintenance of the City's storm water utility
- Verify that concrete curb & gutter systems are maintained to assure positive transfer of storm-water to drains
- Research/Mitigate drainage problems/complaints in order to minimize undesirable private property impacts
- Coordinate ditch cleaning, street sweeping, culvert replacement, brushing and other similar needs
- Implement a street sign program according to the MUTCD and industry standards; update ordinances as needed
- Schedule manhole, valve and catch basin adjustments as needed/requested during construction projects
- Determine/recommend necessary materials, supplies and equipment; follow City Purchasing Policy

Water Division

- Direct the repair and maintenance of the City's water distribution system
- Schedule flushing of water system (both directional and non-directional) on a schedule to assure quality & longevity
- Organize and direct employees responsible for the reading, maintenance and replacement of water meters
- Monitor temperatures in mains and recommend/implement appropriate measures to minimize frost impacts
- Determine and report water loss quantities to the Public Service Commission; abide by PSC regulations
- Work with Surveyor/Project Manager to assure desired materials and features are implemented into project designs
- Assure that valves and service corporations are "exercised" and maintained according to accepted standards
- Follow industry standards/guidelines and agency requirements for the disinfection of water lines
- Coordinate with others regarding the annual maintenance and seasonal operational changes at the water plant
- Effectively communicate/provide prompt reporting as needed with the Clerk-Treasurer/Finance Director office

Sanitary Sewer Division

- Direct the repair and maintenance of the City's sanitary sewer system
- Schedule periodic maintenance cleaning of distribution system to assure desired flow characteristics
- Report infractions regarding undesirable discharges to appropriate Department Heads and waste water plant
- Schedule the repair and maintenance of manholes and distribution lines as needed to assure a functioning system
- Oversee the televising and documentation of the distribution system in regards to maintenance & trouble-shooting
- Inspect, monitor and recommend corrective measures relative to inflow and infiltration problems
- Monitor lift-station systems in coordination with waste water treatment plant consultant

Team Management

- Train, motivate and provide routine evaluation/feedback to personnel
- Coach/direct corrective actions; document/implement progressive discipline procedures within authority
- Establish quality working relationship with other Department Heads; identify opportunity for shared solutions
- Develop and maintain a strong relationship with Parks, Recreation & Cemetery Director regarding joint projects
- Participate in development of emergency management protocol both internally and with external agencies

PERIPHERAL DUTIES

- Oversee the mechanical repairs and preventative maintenance programs for equipment and trucks
- Operation of heavy equipment or trucks in special training or emergency conditions
- Compose, input, and edit a variety of correspondence, reports, memoranda, and other material requiring judgment as to content, accuracy, and completeness.
- Prepares reports for and attend Council & Public Works meetings; attend other Committee meetings as requested.
- Assist in the development and enforcement of codes and ordinances as needed
- Perform other related duties as assigned

DESIRED MINIMUM QUALIFICATIONS***Education and Experience***

- Graduation from a 2-year college or technical school with an emphasis in civil/construction technology, construction management or closely related field; or,
- Minimum of six (6) years related public works experience or at least five (5) years in road construction management; or,
- Any equivalent combination of education and progressively responsible experience; additional work experience may be substituted for the required education.

Certificates and Licenses

- A valid State of Wisconsin driver license, or the ability to obtain prior to employment
- Have general first aid/CPR training or obtain certification within 6-month of hire; maintain certifications
- Must possess a Commercial Driver's License or must obtain within 90-days of employment
- Maintain required water distribution license through the Wisconsin Department of Natural Resources

Necessary Knowledge, Skills, and Abilities

- Thorough knowledge of principles, practices, methods and equipment applicable to municipal construction; skills in operating tools and equipment.
- Ability to plan, organize and supervise daily activities of assigned staff.
- Ability to communicate effectively, both verbally and in writing with a wide range of employees, management, elected officials and the community using diplomacy and tact.
- Able to conduct necessary research for the compilation distribution of comprehensive reports and evaluations
- Knowledge of pertinent Federal, State, and local laws; codes and regulations pertaining to transportation, utilities, development, safety, purchasing, and budgeting.
- Ability to advise and provide interpretation to others on how to apply policies, procedures and standards to situations.
- Working knowledge of the principles and practices of modern public administration.
- Ability to identify and analyze problems; evaluate alternative solutions; and make sound judgments, especially in stressful situations.
- Ability to establish and maintain an effective working relationship with employees, management, elected officials, members of the community, and peers within other municipalities.
- Ability to think logically and to make decisions.
- Willingness to meet deadlines as given.
- Ability to perform basic functions of MS Office suite products; ability to utilize computer technology to access, retrieve, or input information
- Ability to exercise the judgment, decisiveness, and accuracy required in situations involving the evaluation of information

TOOLS AND EQUIPMENT USED

Personal computer, including Windows word processing and excel software; calculator; copy and fax machines; telephone and mobile phone; radio; automobile; various software used within the department; and any other tools and equipment available for use within the department.

PHYSICAL DEMANDS AND WORK ENVIRONMENT

The physical demands and work environment described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

Work is performed in office and outdoor settings as required in the inspection of construction sites or public works facilities. Hand-eye coordination is necessary to operate computers and various pieces of equipment.

While performing the duties of this job, the employee is occasionally required to stand, walk sit, climb, balance, stoop, kneel, crouch, talk, hear, smell, use hands to finger, handle, feel or operate objects, tools or controls; and reach with hands and arms. The employee may be frequently required to walk over rough terrain, use hands to finger, handle or operate tools such as an 8 pound hammer or a shovel, and to handle objects or controls; and reach with hands and arms. The employee must occasionally lift and/or move up to 50 pounds. The work may be strenuous and repetitive.

The work may also require sitting and operating a keyboard. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus.

Work Environment

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The noise level in the work environment may vary from quiet to loud. The work may be indoors or outdoors, exposed to extreme weather conditions.

SELECTION GUIDELINES

Formal application, rating of education and experience, interview and reference check; job related tests may be required.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Effective Date:

Revision Date:

Revision Date:

Revision Date:



To: Mayor and City Council
From: Kaye Matucheski, Clerk/Treasurer
Date: April 18, 2018
Re: Filling Vacant Utility Clerk Position in the Clerk-Treasurer's Office

The Utility Clerk in the Clerk-Treasurer's office has resigned her position as she is going to work for a different employer. I am requesting approval to fill the vacancy in my office as soon as possible as there will now be two positions open. If approved, we will continue with the hiring process.

Should you have any questions, please feel free to contact me.



To: Mayor and City Council
From: Kaye Matucheski, Clerk/Treasurer
Date: April 18, 2018
Re: Utility Clerk Job Description Updates

Any time a position becomes vacant, the job description is reviewed before the position is filled. If the Utility Clerk position is approved in the previous agenda item, we also need to update the job description. Because I just found out about the resignation, I did not have time to update the description to get it in the packet. However, the description was updated in 2012 so there may be a few minor changes and the formatting will be changed to match the current descriptions. I have included the current description and will distribute the updated one at the meeting.

I apologize for not having this ready but if you have any questions before the meeting, please feel free to contact me.

Thank you for your consideration.

POSITION DESCRIPTION

Position Title: Utility Clerk
 Department: Clerk-Treasurer
 Union: Local 391 – Class III
 Work Hours: 40 hrs weekly as scheduled with Clerk/Treasurer
 and some evening meetings as assigned
 Date: 04/13/1995

General Purpose

Performs routine and complex clerical and administrative work as required in the operations of the utility and other public services. Performs a variety of clerical tasks in keeping official and/or confidential records.

Supervision Received

Works under the direct supervision of the Clerk-Treasurer and/or Deputy Clerk-Treasurer.

Supervision Exercised

None

Essential Duties and Responsibilities

Responsible for determining work schedules and expediting work flow within the utility operations.

Prepares reports as required by local policy or the Public Service Commission regulations.

Downloads meter reads from the current reading system and verifies accuracy of reads.

Creates utility billings using current billing software and reviews for completeness and accuracy; performs adjustments as deemed necessary.

Maintains current customer account files; reconciles utility billing activity with the general ledger.

Discusses with Clerk-Treasurer and assists with interpreting City Ordinances relating to utility service.

Performs customer service work for city hall offices by waiting on walk-in customers including cash receipting or providing information as required.

Greets the public in a courteous and friendly manner on the phone and in person while answering questions; responds to inquiries from employees, citizens and others and refers, when necessary, to appropriate persons or department.

Responsible for handling telephone calls and citizen visits regarding utility billing or services on matters of a more technical nature; responds to citizen complaints independently or when necessary, in conjunction with the Clerk-Treasurer.

Pursues collection of delinquent utility accounts following strict guidelines.

Performs clerical work in answering phones, receiving the public, providing customer assistance, data processing, paper filing, writing letters, and bookkeeping. Types and edits a variety of correspondence, reports, memoranda, and other material requiring accuracy and completeness.

Maintain the strictest confidentiality in accordance with the Department policy regarding information heard, handled or obtained within the scope of the job.

Operate office machines as required.

Serves as a notary public.

Inputs data to standard office and department forms; compiles data for various reports, scans information into software.

Works independently to complete all necessary tasks assigned.

Peripheral Duties

Prepares daily deposits of all cash receipts as a backup to the Accounting Assistant.

Process all utility mail as a backup to the Clerical/Utility Assistant.

Attend seminars and workshops related to duties and responsibilities.

Processes work orders for the operation of the utilities.

Processes all aspects of Accounts Payable as a backup to the Accounting Assistant.

Desired Minimum Qualifications

Education and Experience:

- A. Associate's Degree in Accounting or related field preferred; OR
- B. Equivalent work experience, with a demonstrated working knowledge of accounting procedures and practices and strong mathematical skills; and
- C. Knowledge of and demonstrated skills in general office practices and in areas such as Microsoft Word processing, Excel spreadsheet programs, databases, typing, filing, and similar; and
- D. Proficient in composition with strong writing skills

Necessary Knowledge, Skills and Abilities

- A. Working knowledge of computers and electronic data processing; working knowledge of modern office practices and procedures; proficient knowledge of accounting principles & practices and strong mathematical skills.
- B. Ability to work in a detail-oriented fashion adhering to and in conformance with established policies and procedures.
- C. Skill in operation of listed tools and equipment.

- D. Ability to effectively meet and deal with the public; ability to communicate effectively verbally and in writing; ability to handle stressful situations; ability to work with frequent interruptions; ability to effectively handle angry or difficult customers.

Tools and Equipment Used

Multi-line phone; personal computer with experience using Microsoft Office software; 10-key calculator; copy machine; postage machine; fax machine; and scanner.

Physical Demands

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently required to sit, talk, hear, use hands to finger, handle, or feel objects, tools, or controls; and reach with hands and arms. The employee is occasionally required to walk.

The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus. Specific hearing abilities required by this job include hearing at, or correctable to, within normal range.

Work Environment

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The noise level in the work environment is usually quiet.

Selection Guidelines

Formal application, rating of experience and education; oral interview and reference check; job related tests may be required.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Approval: _____
(Supervisor)

Approval: _____
(Employee)

Updated: May 11, 2012