	CITY OF COFFEYVILLE **BOARD OF COMMISSIONERS AGENDA ITEM**	
MEETING DATE	February 10, 2015	
RESOLUTION OR ORDINANCE NUMBER	R-15-18	
AGENDA TITLE	**A RESOLUTION AUTHORIZING THE PURCHASE OF SENSUS METER READING SYSTEM FROM HD SUPPLY WATERWORKS AT A TOTAL PRICE NOT TO EXCEED $14,455 AND SYSTEM INTEGRATION SOFTWARE FROM INCODE IN AN AMOUNT NOT TO EXCEED $5,000.**	
REQUESTING DEPARTMENT	Finance Department	
PRESENTER	Stephanie A. Richardson, Finance Director	
FISCAL INFORMATION	Cost as recommended:	$19,455.00
	Budget Line Item:	800-5-030-850 $10,700.24 900-5-027-850 $ 4,377.38 900-5-037-850 $ 4,377.38
	Balance Available	
	New Appropriation Required:	[X] Yes [ ] No
PURPOSE	Our current meter reading handheld equipment is beginning to fail and is no longer supported by a maintenance agreement by the supplier, Itron.	
BACKGROUND	These handheld units are used daily to read the 7,650 electric meter and 6,300 water meters billed by the City each month. The meter readings are input into the handhelds and the readings are downloaded daily into a format that is converted and transferred into Incode for billing.	

SPECIAL NOTES	Meter reading replacement schedule history: • Original Itron system installed January 1988. • System upgraded in December 1998 for Y2K compliance. • System upgraded in March 2007 due to Itron no longer providing maintenance support for handheld units or meter reading software.
ANALYSIS	Quotes were received from three meter reading vendors. The quotes include three handheld units along with the training necessary for using the units and transferring the data from the units to our Incode billing software. The City has always purchased three units to have one available as a backup unit in the event of a needed repair. The quotes are broken down on the attached Meter Reading System Cost Comparison spreadsheet. City staff is recommending a switch from Itron units to Sensus units. While the cost of the Sensus unit is about $3,000 more upfront, the annual maintenance costs is currently $485 cheaper each year. There will be a required cost from our current utility billing system for integration with the new Sensus handheld units in the amount of $5,000 which is included on the cost comparison. Sensus has become an industry standard with their equipment and software. Sensus units are smaller in size and are lightweight compared to the Itron units. Sensus units will tie directly into our GIS system and are the same brand as those used by city staff to maintain that system. Additional features include the ability to geotag meters for an accurate location of each meter, scan the barcodes on the meters for tracking inventory as well as use the camera to capture any meter damage or issues to be reported to the utility departments. This technology would allow our meter readers who are at the meters each month to capture the meter location and store that data in our GIS system rather than having contractors or other city staff who have the GIS units go to each meter to gather this data. In the event that a meter reader is sick or on vacation, this data could be used to more easily locate the meter and

	capture those readings. The proposed Itron system allows for some of the same features, but their operating system does not interface with our GIS system. In the futures, our utility departments could purchase utility meters with radio read features built into the meters. Once installed, these new units could gather meter reading data from each location by meter readers driving slowly down the street and the handhelds would collect those readings automatically. This would reduce the chance of potential misreads and increase the safety to our meter readers. Sensus is including two days of on-site training for the meter readers and customer service staff to familiarize them with the new windows based system. Based on the city's efforts to continue moving forward generating additional data layers in our GIS system and the added features available to us in the future, staff is recommending we purchase the Sensus meter reading handheld units from HD Supply Waterworks and authorize Incode to perform the necessary sync integration for the new units.
PUBLIC INFORMATION PROCESS	N/A
BOARD OR COMMISSION RECOMMENDATION	N/A
STAFF RECOMMENDATION	Staff recommends approval of the resolution.
REFERENCE DOCUMENTS ATTACHED	Meter Reading System Cost Comparison Trimble Handheld Datasheet

RESOLUTION NO. R-15-18

A RESOLUTION AUTHORIZING THE FINANCE DIRECTOR TO ISSUE A PURCHASE ORDER TO HD SUPPLY WATERWORKS FOR A SENSUS METER READING SYSTEM AND TO INCODE FOR SYSTEM INTEGRATION SOFTWARE.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF COFFEYVILLE, KANSAS;

That the Finance Director be and is hereby authorized and directed to issue a purchase order to HD Supply Waterworks for a Sensus meter reading system at a total price not to exceed $14,455 and to Incode for system integration software in an amount not to exceed $5,000.

ADOPTED THIS 10TH DAY OF FEBRUARY 2015.

_____
James Falkner, Mayor

_____
Cindy Price, City Clerk

APPROVED AS TO FORM AND LEGALITY:

_____
Paul Kritz, City Attorney

METER READING SYSTEM COST COMPARISON								
VENDOR	HANDHELD BRAND	HARDWARE	SOFTWARE	TRAINING	ANNUAL SUPPORT	INCODE INTEGRATION	SALES TAX	TOTAL
Stanion Wholesale Electric	Itron	$ 12,654.39	$ -	None	$ 2,480.32	$ -	$ 1,157.88	$ 16,292.59
HD Supply Waterworks	Sensus	$ 7,640.00	$ 3,775.00	Included	$ 1,995.00	$ 5,000.00	$ 1,044.47	$ 19,454.47
Northrop Grumman	VersaTerm	$ 11,312.00	$ 4,550.00	$ 4,547.00	N/A	$ 5,000.00	$ 1,451.37	$ 26,860.37

DATASHEET

Trimble Nomad rugged handheld computer

KEY FEATURES

- Outdoor rugged design
- Long-life battery
- 806 MHz processor
- Integrated WWAN capability
- Integrated GPS with SiRFstarIII and SiRFInstantFixII
- Integrated bar code scanner
- Integrated 5MP camera, with flash and geotagging
- Integrated Bluetooth and Wi-Fi wireless capability
- Full VGA display
- Windows Mobile 6.1
- Small and lightweight

EVERYTHING YOU WANTED IN AN OUTDOOR RUGGED HANDHELD COMPUTER—BUILT IN.

The Trimble® Nomad® 900 series packs even more functionality into one of the most powerful and full-featured rugged handheld computers available. Standard features include an 806 MHz processor, a long-life lithium-ion battery, 512 MB to 2 GB of Flash storage and integrated wireless capabilities like GPS, Wi-Fi and Bluetooth®[1]. The high-resolution, sunlight-visible VGA display shows images, maps and data in crisp detail. Optional features include an integrated cellular WWAN, laser bar code scanner and a 5 MP color digital camera.

The Nomad computer also includes the latest Windows Mobile® 6.1 software, so it runs all the applications you use most, including a wide range of third-party software for industry specific applications.

Built-in versatility

The Nomad computer's many built-in capabilities make it easy to collect, save and transmit data in the field. The integrated SiRFstarIII GPS receiver with SiRFInstantFixII technology enables position acquisition in less time and in challenging environments such as in canyons, under heavy canopy and even inside buildings[2]. Now navigation is faster, more accurate, more reliable and more consistently available.

Quickly track your assets with the integrated 1D laser bar code scanner and upload changes from the field. The 5 megapixel camera and geotag-enabled software can capture high-resolution, full color images for inspection, maintenance and repair applications. With geotagging enabled, your photos will have precise locations stored in EXIF and/or overlaid on the image.

All models come with a Secure Digital (SD/SDHC) slot. Depending on the model, even more capabilities can be added via a CompactFlash (CF Type II) slot.

Tough as the outdoors

Like other Trimble rugged handhelds, the Nomad computer meets rigorous MIL-STD-810F military standards for impact, vibration, humidity, altitude and extreme temperatures. It also comes with an IP67 rating. That means the Nomad handheld is completely sealed against dust, and it can survive immersion in up to a meter of water for 30 minutes. Trimble rugged handhelds have proven their reliability and lower Total Cost of Ownership (TCO) over consumer grade handhelds[3] in the field with thousands of real world users.

Ideal mobile application platform

The Marvell 806 MHz processor, when combined with Trimble's optimized graphics processing, advanced caching, and proprietary high-speed journaling file system, makes the next generation Trimble Nomad series one of the fastest Windows Mobile handheld computers on the market today. Tuned to maximize the integrated GPS receiver's performance, the next generation Nomad also has an improved antenna design which significantly improves Time-to-First-Fix (TTFF) and fix under thick canopy.

Want to do more outside? Get the handheld that has more inside. Get your hands on a Nomad handheld computer.

1 Nomad 900B models have Bluetooth only.
2 Tracking ability and position accuracy will vary depending on building construction.
3 E-mail us at handhelds@trimble.com for a copy of the TCO White Paper.

Trimble

Trimble Nomad rugged handheld computer

STANDARD FEATURES

- Windows Mobile 6.1 (Professional in WWAN models; Classic in all other models)
- Marvell 806 MHz XScale processor
- 128 MB DDR SDRAM
- 512 MB to 2 GB non-volatile Flash storage (4 GB SD card included with camera models)
- Full VGA display, sunlight-readable color TFT
- Touchscreen
- Rugged submersible design
- Integrated speaker and microphone
- Integrated Bluetooth 2.0
- Secure Digital (SD/SDHC) slot
- Numeric keypad
- Notification LEDs
- USB host and client
- Headset jack (2.5 mm mono audio and microphone)
- 15-hour battery life (in active use with default settings)
- Keypad backlight for night use
- 12-month limited warranty

CONFIGURATION OPTIONS (See Nomad Configurations table below for details)

- Integrated Quad-band GSM GPRS/EDGE capability
- Integrated GPS (SiRFstarIII, WAAS / SBAS capable, SiRFInstantFixII)
- Integrated Wi-Fi wireless capability
- CompactFlash (CF) (Type II) slot
- Integrated laser 1D bar code scanner
- Integrated digital camera (color, 5 megapixel resolution, with flash)
- Serial boot with 9-pin RS-232 port

STANDARD SOFTWARE

- Microsoft Office Mobile
  - Word Mobile
  - Excel Mobile
  - PowerPoint Mobile
  - Outlook Mobile
  - Pocket OneNote
- Internet Explorer Mobile
- Notes/Tasks
- Calculator
- Windows Media Player
- Microsoft Pictures and Videos
- Online help
- Contacts/Calendar
- Adobe Reader LE

STANDARD ACCESSORIES

- Rechargeable Li-ion battery module
- Rugged stylus with spring-loaded tip
- Stylus lanyard
- AC charger and international adapters
- USB data cable
- Standard Cap
- User's guide
- Hand strap
- Screen protectors
- Getting Started CD with ActiveSync
- USB boot

OPTIONAL ACCESSORIES

- Carry case
- Deluxe case with belt clip & neck strap
- Serial boot with 9-pin RS-232 port
- Serial interface cable
- AA battery module
- Spare battery charger
- Extended Cap
- Range pole bracket
- 12 V vehicle charger
- Vehicle mount
- Trigger pistol grip

PHYSICAL

Size . . . . . 6.92 in x 3.92 in x 1.96 in (17.6 cm x 10 cm x 5.0 cm)
Weight . . . . . 21 ounces (596 g) including rechargeable battery
Housing. . . . . Polycarbonate
Color . . . . . Yellow w/Black, Grey w/Black or Green w/Black

CERTIFICATIONS: FCC, CE/R & TTE, IC (Canada), C-Tick, RoHS Compliant, PTCRB, GCF Compliant, AT&T network compatible, Section 508 compliant, CCX v4 ASD, MIL-STD-461E RE102, MIL-STD-461E RS103

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ENVIRONMENTAL SPECIFICATIONS

Meets or exceeds:

Water . . . . . Immersed in 3.3 ft (1 meter) of water for 30 minutes
Water Jet 0.5 in dia. @ 8.2 ft–9.8 ft, 26.4 gallons/min
(Water Jet 12.5 mm dia. @ 2.5 m–3 m, 100 Liter/min)
MIL-STD-810F, Method 512.4, Procedure I, IEC-529, IP67
Sand & dust . . . . . 8 hours of operation with blowing talcum powder
MIL-STD-810F, Method 510.3, Procedure I, II, IEC-529, IP67
Drop . . . . . 26 drops at room temperature from 4 ft (1.22 m)
onto plywood over concrete
6 additional drops at –22 °F (–30 °C)
6 additional drops at 140 °F (60 °C)
MIL-STD-810F, Method 516.5, Procedure IV
Vibration. . . . . General Minimum Integrity and Loose Cargo tests
MIL-STD-810F, Method 514.5, Procedure I, II
Operating Temperature. . . . . –22 °F to 140 °F (–30 °C to 60 °C)
MIL-STD-810F, Method 501.4, Procedure II
MIL-STD-810F, Method 502.4, Procedure I, II, III
Storage Temperature. . . . . –40 °F to 158 °F (–40 °C to 70 °C)
MIL-STD-810F, Method 501.4, Procedure I
MIL-STD-810F, Method 502.4, Procedure I, II, III
Temperature shock. . . . . –22 °F/149 °F (–30 °C/+65 °C)
MIL-STD-810F, Method 503.4, Procedure I
Humidity . . . . . 90%RH temp cycle 32 °F/158 °F (0 °C/+70 °C)
MIL-STD-810F, Method 507.4
Altitude. . . . . 15,000 ft (4,572 m) at 73 °F (23 °C)
to 40,000 ft (12,192 m) at –22 °F (–30 °C)
MIL-STD-810F, Method 500.5, Procedure I, II, III

ELECTRICAL

Processor. . . . . Marvell PXA320 XScale 806 MHz
Memory. . . . . 128 MB DDR SDRAM; ~30 MB reserved
Storage . . . . 512 MB to 2 GB onboard non-volatile NAND Flash; ~50 MB reserved
Expansion . . . . . 1x SD/SDHC slot (all models),
1x Type II CF slot (900B, 900L, 900X)
4 GB SD card included in camera-equipped Nomad 900 models
Display. . . . . 480 x 640 pixel (VGA) 16-bit color TFT with LED backlight
Batteries . . . . . 5200 mAh Li-ion rechargeable module[4]
I/O . . . . . USB host and client, power, headset jack
GPS accuracy. . . . . 2–4 m SBAS corrected[5]
Radios . . . . . Bluetooth 2.0 + EDR;
WLAN: Wi-Fi (CCX v4 ASD) (802.11b/g);
WWAN: Quad-band GSM GPRS/EDGE

4 To ensure best performance when temperatures are below –4 °F (–20 °C), be sure battery is inserted in the device only when in use. When device is not in use at these temperatures, keep batteries in a pocket or stored in a warmer area.
5 2–4 m (50%–95%) accuracy determined using Horizontal Root Mean Squared method – Open Sky.

NOMAD CONFIGURATIONS

	Flash	Card slots	BT	GPS	Wi-Fi	WWAN	Camera	Bar code scanner
900B	512 MB	SD/CF	x					
900L	1 GB	SD/CF	x	x	x			
900LC	1 GB	SD	x	x	x		x	
900LE	1 GB	SD	x	x	x		x	x
900X	2 GB	SD/CF	x	x	x	x		
900XE	2 GB	SD	x	x	x	x	x	x
800LC	1 GB	SD	x	x	x		x	

Color display images shown may vary slightly from actual display. Specifications subject to change without notice. Trimble Nomad has tested compatible with Cisco wireless access points with CCX features.

YOUR AUTHORIZED TRIMBLE DISTRIBUTION PARTNER

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