aaa

Proposed Hardware:

| **Sl.** | **Particulars** | **Unit** |
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| 1.A | Application/Database/File, GIS, Internet Server:   |  |  | | --- | --- | | • Form: | Rack mounted | | • Processor: | Multi-processor, Multi-core (at least 6 core and over 2.5 Ghz) | | • RAM: | 32 Gb 1333 MHz, ECC | | • Hard Drives: | 2 x 500Gb 3.5” 7200RPM SATA | | • RAID: | minimum 5 | | • RAID Controller: | Integrated External RAID Controller: Adapter | | • Optical Drive: | Combo CD-RW/DVD-ROM | | • Network Interface: | Dual integrated 4 Gb Ethernet with load balancing. | | • USB ports: | 2 front / 2 rear /1 internal | | • Power supply: | Dual (redundant hot swappable) | | • Operating System: CALS | Windows Server 2008 Standard Edition plus 5 | | • Configured for: | Domain File Server, IIS and SQL Server | | • Warranty Support: day | 4 year hardware warranty 4 year hardware support, on-site next business | | 01 |
| 1.B | External Drive Array:   * Hardware appliance directly connected to File Server * Form: Rack mounted, As applicable * Hard Drives: 4 x 1Tb 3.5” 7200RPM SATA 11   + 1 x lTBb 3.5” 7200RPM SATA II (Hot Spare)   * Expansion: Up to fifteen (15) 3 Gbps SAS, NL SAS and SATA II * RAID level: minimum 5 * Cable Connection: SAS Cable * Host interface: Two 3GB SAS * Management As appropriate * Warranty 4 year hardware warranty   Support: 4 year hardware support, on-site next business day | 01 |
| 1.C | Data Back-up and Recovery Device:   * Rack mounted * Scalable * Central console management * Up to 6 Tb * Hot swappable * eSATB and USB connect * Allow transparent non-disraptive back-up services * Use back-up media which is easily and securely removed to off-site storage. | 01 |
| 1.D | Keyboard / Video / Monitor/KCM Switch   * Rack mount keyboard in slide drawer * Rack mount LCD monitor in slide drawer * KVM switch: 12 Port,   Including cables for File / Email / Management | Web Servers / Internet Content Filtering Appliance plus existing servers: | 01 |
| 1.E | Floor Standing Rack Unit   * Height: 42 U * Width: 19” * Integrated power rail (6 port min) * Exhaust fans * Fully enclosed - lockable * Horizontal and vertical cable management * Support: On-site next day response for 4 years from Date of Acceptance | 01 |
| 1.F | Internet Content Filtering Appliance (Firewall):  Hardware   * Hardware appliance directly connected to network * Transparent Ethernet bridge * Supporting minimum 1000 users * Form: Rack mounted * Storage: 160GB * 4 x 10/100/1000 Ports Appliance performance: * Firewall Throughput: 1.5 Gbps * VPN Throughput: 120Mbps * IPS Throughput: lGbps * Concurrent Connections: minimum 100,000 * Licensed Users: Unlimited   Appliance Software Specifications:   * Firewall specifications: * Protocol/application support: 200-plus * Network Address Translation; Static/hide NAT support with manual and automatic rules * Peer-to-peer Blocking: As applicable * Instant Messaging Control: AS applicable * IPSec VPN: * Encryption Support: AES 128-256 bit, 3DES 56-168 bit * Authentication Methods: Password, RADIUS, TACACS, X.509, SecurlD * Topology Support: As applicable * IPS: * Network-layer protection: Blocks attacks such as DoS, port scanning, IP/ICMP/TCP-related * Application-layer protection: Blocks attacks such as DNS cache poisoning, FTP bounce, improper commands * URL filtering: * URL Database: URL database 25 million-plus URLs in more than 90 categories * Updates: Automatic and centralized * Antivirus & Anti-Malware: * Antivirus Protection: Protects HTTP, POP3, SMTP and FTP protocols * Anti-spyware Blocks: Pattern-based spyware blocking at the gateway * Updates: Automatic updates * Anti-Spam & Email Security: * Email IPS: SMTP, POP3 and IMAP attack protection * Pattern-based Anti-spam: Detects spam based on dynamic database of signatures * Licenses: 3 year subscription * Warranty 3 year hardware warranty   Support: 4 year hardware replacement, on-site next business day | 01 |
| 1.F | Rack UPS:   * Form: Rack mount * Output Capacity: 10kVA * Input: * Nominal voltage: 220VAC * Voltage range: 160—300VAC (70% to 100% load); * Frequency: 50FIZ +/-8% * Output: * Nominal voltage: 220VAC +1-2% (230V or 240V re-settable via LCD panel) * Frequency: Synchronized (Line mode); 50HZ +/- 1 % (Battery mode) * Batteries: * Backup: Available runtime for 30 minutes with full load * External Battery Bank: Rack mount 4U; 12V/9AH\*20pcs \* 3 sets 'y Hot swap user replaceable * Management: Web brower supported as applicable * Management software: * Automatic server shutdown via network communications * Audible alarm: * Battery mode: Beeping when battery low * Overload: Beeping twice per second y UPS fault: Continuously beeping * Bypass: * Automatic when Overload and UPS failure * Cooling: Force air cooling * Communication: * Panel: LCD * Interface: RS-232 and Intelligent Slot * Warranty 3 year har dware warranty   Support: 4 year hardware replacement, on-site next business day | 01 |
| 2A | Desktop Workstation with UPS (Office of the Local Treasurer; Office of the Municipal Engineer/Planning Officer; Office of the Mayor)   * Processors: Multi-processor, Multi-core (at least 6 core and over 3.2 Ghz) * Memory: 16 GB DDR3 1333MHz * Hard Drive/s: 4 TB 7.2k RPM SATA Hard Drive, support 7200 RPM SATA 3.0GB/s, 10K RPM SATA 3.0GB/s, SATA Solid State Drive * Optical Drives: DVD+/-RW * 1 GB Integrated Graphics Media Accelerator HD card * Audio : Integrated High Definition Audio with speakers. * Networking: Ethernet LAN 10/100/1000 * Standard I/O Ports: 8 USB 2.0 ports; 1 Serial; 1 VGA; 1 Display Port; 1 eSATA; * Keyboard and mouse * Monitor: 22" widescreen flat panel LCD monitor (VGA, DVI-D with HDCP) * Windows 7 Professional Edition * Warranty 3 year hardware warranty Support: 4 year hardware support, on-site next business day | 3 |
| 2B | UPS   * 1000 VA * 230VInput: * Normal Voltage: 220 Vac * Voltage Range: 160-280Vac * Frequency Range: 50HZ ±5% * Output: * Voltage on mains: A.V.R.; 180-260Vac (Line mode) * Voltage on battery: 220 Vac±6% (Battery mode) * Frequency: Synchronized (Line mode) * Transfer Time: < 4 ms * Back-up Time: 3~10minutes * Communications Interface: DB-9 port and DB-9 Cable Via Monitoring Software | 3 |
| 4 | Local Area Network   * 16/24 Port Ethernet Gigabit 10/100/1000 Switch * 4 Port SFP Slots for Fibre support * SFP Transceivers: 2 SFP 1000BASE-SX transceiver * Switching Capacity: Up to 136 Gbps * Forwarding rate: Up to 96 Mbps * Stacking: * Up to 8 units in a stack * Hot insertion and removal * Master and backup master for resilient stack control * Layer 3 * Security: 802. IX - RADIUS authentication; MD5 hash, ACLs * QoS: * Priority levels: 4 hardware queues * Scheduling: Priority queuing and weighted round-robin * Class of service: Port based, 802. Ip VLAN priority based, IPv4 IP precedence/ToS/DSCP based, DiffServ * Management: Web user interface, SNMP vl, 2c, 3c. * Rack mounting kit * Warranty 3 year hardware replacement warranty from Date of Acceptance   Support: 4 year on-site, next business day response support service from Date of | 1 |
| 4B | * Patch Panels * UTP: 24 Port Cat5e/Cat6 compatible * Fibre: 12 Port * Support: On-site next day response for 3 years from Date of Acceptance | 1 |
| 4.C | Patch Leads   * Cat6/Cat5e Standard as required/specified * RJ45 Terminator | 1 |
| 4.D | Civil Works | 1 |
| 5 | Laser Printer  A4 Laser Printer:   * Ethernet adapter and USB 2.0/3.0 * Print mono draft lOppm minimum   600 x 600 resolution Manual or auto duplex | 3 |
| 6 | Large-Scale Printer  Laser Printer:   * Ethernet adapter and USB 2.0/3.0 * Print mono draft 40-50 ppm minimum * 1200 x 1200 resolution Manual or auto duplex | 1 |

7. Digitizer

| Platform Support | **PC** | **Unit** |
| --- | --- | --- |
| Software Drivers | Microsoft Windows® 95, 98, ME, NT, 2000, XP, Vista, 7 and 8 | 01 |
| Hardware Interface | USB, RS-232 Serial (Requires optional Power Supply) |
| Absolute Accuracy | ±0 002 in / ±0.051 mm; ±0.005 in / ±0.127 mm; ±0.010 in / ±0.254 mm |
| Resolution | Up to 12,700 lines per inch/500 lines per mm real resolution |
| Repeatability | 1 LSB (least significant bit) |
| Proximity | >0.4 in / 10.2 mm, cordless; >0.8 in / 20.3 mm, corded 0.5 in /12.7 mm |
| Self-Diagnostics | Automatic testing RAM, ROM and microprocessor |
| Baud Rate | Up to 38,400 |
| Data Rate | Up to 200 coordinate pairs per second |
| Technology | Electromagnetic |
| Output Formats | 32 industry-standard formats |
| Cursor Switches | Elastomeric keypad, rated life over 1 million actuations |
| Emulations | CalComp 3400, GTCO T5A, Summagraphics Microgrid |
| Operating Modes | Point, line, run, track, incremental, prompt |
| Power Supply | 120 V/60 Hz, 220 V/50 Hz (required for RS-232 serial connection) No supply required for USB connection |
| Power Requirements | 5 Volts, DC, 100 mA current draw (USB)  9 Volts, DC, 200 mA current draw (with Power Supply) |
| Certification | UL 1950, EN60950, FCC, VCCI, CE, EN55024, EN55022, Industry Canada |
| Operating  Temperature | 41 to 1 l5°F/5 to 46°C |
| Storage Temperature | 0 to ±150°F/-18 to +68°C |
| Humidity Range | 10 to 95%, noncondensing |
| Altitude Range | Oto 10,000 ft./0 to 3,077 m |
| Warranty | One-year limited warranty; extended wairanty available for Large Format tables - U.S. only |
| Included Components | * DrawingBoard VI digitizer * Corded or cordless pointing device * USB cable * CD with Windows Drivers and User's Manual * Mounting brackets (except for 20 x 24) * Pen/cursor tray |