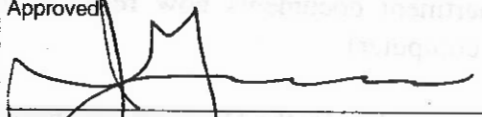


To: SUPERSEDED BY EI 06-022 EFFECTIVE 01/11/07		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 04-005
Title: SECTION 637 SPECIAL SPECIFICATIONS			
Distribution: ☐ Manufacturers (18) ☒ Local Govt. (31) ☒ Agencies (32) ☐ Surveyors (33) ☒ Consultants (34) ☒ Contractors (39) ☐ _____ ()		Approved:  James F. Tynan, Director, Construction Division Date: 2-6-04	

ADMINISTRATIVE INFORMATION:

- This EI is effective with projects submitted for the letting of September 9, 2004. Application of this EI prior to this date is encouraged (see 'IMPLEMENTATION').
- This EI supersedes EI 79-013, "Communication Specifications."
- This EI supersedes EI 91-011, "Mobile Telephone Service."
- This EI supersedes EI 97-009, "Microcomputer System Specification Item 15637.35 (English) & 15637.35 M (Metric)."
- This EI supersedes EI 00-033, "Item 15637.51 M - Digital Camera System."
- This EI disapproves sixty-one Section 637 special specifications.
- This EI disapproves six Section 634 special specifications.
- This EI issues nineteen new Section 637 special specifications with general-use approval.
- The special specifications will be incorporated into the next revision of the Standard Specifications.

PURPOSE:

To release new Section 637 special specifications and to disapprove miscellaneous special specifications relating to field computers, automation, communication devices, vehicles, and other Section 637 items.

TECHNICAL INFORMATION:

- The new Section 637 special specifications provide updated field computers and automation requirements. The new specifications do not encompass as many different system components (computer, printer, computer accessories, etc.) all under the one contract pay item. Instead, the printers have been given their own contract pay item number and are no longer part of the computer system contract pay items. In addition, new components (scanner, etc.) have been given their own contract pay items, as well. This helps reduce the potential redundancy of various peripherals being supplied as part of different computer system contract pay items and allows for the equipment to be selected that meets the needs of the entire field office as a whole.
- The new special specifications are formatted to state the contract pay item general specifications but then reference a separate supplemental contract proposal special note for the technical requirements for the components of the contract pay item. This format allows for the general specifications to remain in place while the technical requirements can be periodically updated without reissuing a new contract pay item number.

The technical requirements are to be included in the contract proposal as special notes. They are available from the NYSDOT website at: <http://www.dot.state.ny.us/constr/637/section637.html>.

- Previously, there were several different desktop computer specifications based on the intended use of the computer (microcomputer, CADD computer, CPM computer). These have all been replaced by computer contract pay items (desktop or portable computer) which will meet the field office's computing needs for the various activities. Therefore, any references to the "microcomputer" in any Department documents now refer to the "field office computer" (could be a desktop or portable computer).
- Actions to be taken by the Designer and Engineer, along with design guidance for many of the new special specifications, are covered in EI 04-006 being released concurrently with this EI.

IMPLEMENTATION:

- This EI disapproves the following special specifications:

Disapproved Contract Pay Items

<u>Contract Pay Item</u>	<u>Description</u>
10634.0401	Furnish Mobile Telephone Equipment – Maximum Bid
15634.0401	Furnish Mobile Telephone Equipment
10634.040291	Message Unit Charges for Mobile Telephone Service
15634.040291	Message Unit Charges for Mobile Telephone Service
15634.0498	2-Way FM Radio Base Station
15634.0499	2-Way FM Mobile Radios
01637.0492	Marine Transportation for Engineers
10637.0496	Maintenance Boat
63637.049603	Emergency Paging and Signaling Service
11637.1001	Installation of a Portable Compressed Natural Gas (CNG) Vehicle Fueling System
11637.1002	Supply Gas and Electric Service for Portable CNG Vehicle Fueling System
02637.1090	All Terrain Inspection Vehicle
02637.1091	High Rail Vehicle
10637.1096	Inspection Vehicles - Maximum Bid
15637.15	Telephone Answering Device
11637.20	Furnish Portable Cellular Telephone Equipment
11637.21	Voice Message Unit Charges for Cellular Telephone Service
10637.2101	Portable Cellular Digital Telephone (Hands Free)(Radio Equipment)(Fixed Price)
10637.22	Install and Maintain Telephone Service
11637.22	Furnish Portable Cellular Telephone/Radio Equipment
10637.25	Pager
09637.3202	Notebook/Laptop Microcomputer System
08637.3204	Notebook/Laptop Microcomputer System
04637.3205	Computer-CCTV Server/Furnish and Install
09637.3205	Notebook/Laptop Microcomputer System
04637.3206	Computer LAN Server/Furnish and Install
04637.3207	Computer-Workstation/Furnish and Install
04637.3208	Computer-Graphic Server/Furnish and Install
04637.3209	Computer-HAR & DMS/Furnish and Install
04637.3210	Computer-RWIS Server/Furnish and Install

01637.3211	Laser Printer
04637.3211	Printer-Laser-Network/Furnish and Install
08637.3211	Printer-Laser-Network/Furnish & Install
04637.3212	Printer-Laser-Color/Furnish and Install
08637.3212	Printer-Laser-Color/Furnish and Install
04637.3213	Time Standardization System/Furnish and Install
08637.321301	Computer-Video Client/Furnish & Install
08637.321302	Computer-Central Equipment/Furnish and Install
08637.321303	Computer-Administration, Workstation and LAN
08637.321304	Computer-CCTV Server/Furnish and Install
08637.321305	Computer-Workstation
08637.321306	Firewall-Computer Furnish and Install
01637.321307	Local Area Network (LAN)
08637.321307	Computer-LAN Server/Furnish and Install
01637.3214	Laptop Computer
04637.3214	Computer-Laptop
04637.3215	Switching Equipment-KVM/Furnish and Install
08637.3215	Switching Equipment-KVM/Furnish and Install
04637.3218	Computer-RWIS Video Archive Server/Furnish and Install
04637.3220	Computer System Installation and Integration
04637.3250	Computer-DMS/Furnish and Install
10637.35	Microcomputer System-Maximum Bid
11637.35	Microcomputer System
15637.35	Microcomputer System
08637.3501	Microcomputer System
08637.3502	CADD Computer System
08637.3504	Laptop Computer System
08637.3505	Laptop Computer Docking System
08637.3506	Local Area Network (LAN)
02637.36	CADD Microcomputer System
05637.36	Microcomputer System
05637.37	Microcomputer System
09637.5046	Solar Powered Mobile Highway Advisory Radio
15637.51	Digital Camera System
04637.8331	Testing
15637.910001	CHAMP Management System
15637.910002	CHAMP Management

- This EI releases the following new Section 637 special specifications:

New Contract Pay Items

<u>Contract Pay Item</u>	<u>Description</u>	<u>Pay Unit</u>
637.20-----20	Mobile Telephone	Dollar Cents
637.21-----20	Pager	Dollar Cents
637.22-----20	Two-Way Radio System	Dollar Cents
637.3501----20	Desktop Computer	Dollar Cents
637.3502----20	Laptop Computer	Dollar Cents
637.3503----20	Portable Computer Docking System	Dollar Cents

EI 04-005 Page 4 of 4

637.3504----	20	Tablet Computer	Dollar Cents
637.3505----	20	Handheld Computer	Dollar Cents
637.3506----	20	Local Area Network (LAN)	Dollar Cents
637.3507----	20	Printer (8.5 x 11)	Dollar Cents
637.3508----	20	Printer (11 x 17)	Dollar Cents
637.3509----	20	Color Printer (8.5 x 11)	Dollar Cents
637.3510----	20	Color Printer (11 x 17)	Dollar Cents
637.3511----	20	Portable Printer	Dollar Cents
637.3512----	20	Plotter	Dollar Cents
637.3513----	20	Scanner	Dollar Cents
637.3514----	20	Multifunction Machine	Dollar Cents
637.3515----	20	Digital Camera	Dollar Cents
637.3516----	20	Office Technology Supplies	Dollar Cents

- Action by the Designer - For those projects submitted for letting prior to September 9, 2004, to which the Designer chooses to implement the changes included in this EI, the Designer must include the appropriate inserts (special specifications and associated technical requirement special notes) with the PS&E transmittal and/or amendment request memo for inclusion in the construction contract bid documents. The Designer can obtain the required information and materials from www.dot.state.ny.us/constr/637/section637.html for inclusion in the PS&E.

TRANSMITTED MATERIALS:

Effective as of the September 9, 2004, letting, the full text of the specifications will be available with the electronic version of this EI on our web site at www.dot.state.ny.us at "Site Index", "S", "Special Specifications" in the area designated by the prefix number of the specification. Additional resources are available from <http://www.dot.state.ny.us/constr/637/section637.html> (available prior to September 9, 2004). A sample format of the special specification and the special note are transmitted with this EI. (Note: Sample is of contract pay item 637.3501----20 - Desktop Computer. The content and technical requirements of the sample documents may vary from the actual documents. The sample documents are for document format illustration purposes only.)

BACKGROUND:

There are numerous Section 637 special specifications relating to field computers, communications, vehicles, and automation. In order to clarify which special specifications should be used, the non-recommended special specifications are being disapproved. There are several Section 637 special specifications which were used only once or are used very infrequently. These special specifications reference already out-of-date technology, so these specifications are being disapproved. There are a few Section 634 special specifications which relate to Section 637 topics which are also being disapproved.

CONTACT:

Direct questions regarding this Engineering Instruction to Rob Howland of the Construction Division at Phone: (518) 457-6472, Email: mo-construction@dot.state.ny.us. When making inquiries, include the EI number and title along with the contact person's name in the phone message/email.

***** SAMPLE SPECIAL SPECIFICATION *****
(NOT AN ACTUAL SPECIFICATION)

ITEM 637.3501 20 - DESKTOP COMPUTER

DESCRIPTION:

This work shall consist of providing a fully operational computer system.

MATERIALS:

The computer system shall include all the components specified in the contract proposal special note for this pay item. The system shall adhere to the technical specifications as specified in the contract proposal special note for this pay item.

The number of desktop computers to be supplied shall be identified in the contract proposal special notes or by the Engineer.

The Contractor is required to provide maintenance service and repairs as necessary (A maintenance/extended warrantee contract for the duration of the contract is reimbursable).

The components shall meet NYSDOT standards and requirements. Requests to provide more recent versions, revisions, or service pack applications of the operating system and software must be submitted in writing and approved by the Engineer prior to delivery.

All of the computer system components shall be 100% compatible with the other components and function in the operating system environment installed on the computer. In addition, all of the components shall be 100% compatible with any peripherals (printers, etc.) or network which may be installed in the field office. All hardware shall support NYSDOT standard software. The computer system shall include all necessary cables and hardware to connect the components and provide a fully functional computer system to the satisfaction of the Engineer. All necessary software, operating manuals, and other pertinent media for all the components shall be provided.

CONSTRUCTION DETAILS:

The Contractor shall provide, install, and maintain a computer system in the Engineer's field office. The Contractor shall make the system fully operational in a timely manner. All equipment furnished shall be subject to approval by the Engineer and the appropriate NYSDOT automation support personnel. The Engineer shall coordinate the review of the materials with the appropriate NYSDOT automation support personnel.

The Contractor shall be responsible for all modifications to the Engineer's field office (or other designated location) necessary to make it compatible with, and capable of supporting, the computer system such as, but not limited to, the telephone system and/or the office electrical system. These modifications shall be paid for under the Engineer's Office pay item.

The system shall be maintained and remain in service until either: (a) the Engineer requests its removal in writing, (b) the State relinquishes the Engineer's field office and the computer system is relinquished as part of the Engineer's field office, or (c) the later of either thirty (30) days after the final contract acceptance date or thirty (30) days after the date the Contractor provided the last documentation necessary for processing the final contract acceptance.

***** SAMPLE SPECIAL SPECIFICATION *****
(NOT AN ACTUAL SPECIFICATION)

ITEM 637.3501 20 - DESKTOP COMPUTER

Ownership of the equipment supplied by the Contractor shall revert back to the Contractor upon completion of the contract.

The Contractor shall maintain all furnished equipment in good working condition and shall provide replacement due to breakdown, damage, or theft within two (2) working days.

Equipment more than one (1) year old shall not be provided. To verify the age of the equipment, the Contractor, upon request, shall provide the Engineer with a dated copy of the receipt(s) for the purchase of the equipment. Once equipment has been provided, it does not require replacement every year. However, during the life of the contract, the Engineer can require that new equipment be provided as needed.

METHOD OF MEASUREMENT:

The computer system will be measured on a fixed price Dollar Cents pay unit basis.

BASIS OF PAYMENT:

The pay item is a "draw down" item. As materials are supplied, the receipts for the materials shall be submitted to the Engineer. The Contractor will be reimbursed for receipted costs of materials plus 20% for profit and overhead ('materials' includes all physical materials, software, labor, services, and service contracts provided to furnish, install, maintain, and remove all of the components of the system).

The total cost shown in the itemized proposal for this pay item will be considered the price bid even though payment will be made only for actual materials supplied, with profit and overhead. The unit price amount is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figure will be disregarded, and the original price will be used to determine the total amount bid for the contract.

If new equipment is not provided, the Engineer shall determine a reasonable cost for the equipment. The Contractor should provide a copy of the original receipt for the equipment to assist the Engineer in assessing the current value of the equipment. Used equipment less than one (1) year old shall be assessed at no more than fifty percent (50%) of the original receipted cost. Equipment over one (1) year old should not be considered for approval.

*** SAMPLE SPECIAL NOTE ***
(NOT AN ACTUAL SPECIAL NOTE)

SPECIAL NOTE
Technical Requirements for
Item 637.3501----20 – Desktop Computer

Equipment to be Provided:

('Quantity' refers to the number of units to be provided (1, 2, 3, etc.), it is subject to change by the Engineer)

Desktop Computer(s)

Quantity _____

Technical Specifications:

This pay item shall include all the components, peripherals, software, and accessories specified as follows:

[Note: If a specification is followed by "(minimum)" then the stated requirement or better is acceptable. Otherwise, only the stated requirement is acceptable]

COMPUTER

- Operating System - Windows XP Professional
- Processor - Pentium IV (or equivalent), 2.0 GHz (minimum)
- Memory - 512 MB RAM (minimum)
- Graphics - 32 MB Video RAM (minimum)
- Hard Drive - Internal 40 GB (minimum)
- CD-Rom - Internal, ReWriteable CD device (CD-RW), 40x10x40 (minimum)
- Floppy Drive - One 1.44 MB, 3 1/2", internal floppy disk drive
- Modem - Internal, 56k modem (minimum)
- Monitor - 17", color, flat panel (minimum)
- Network Card - 10/100 cable Ethernet or 11 Mbps wireless
- Additional Hardware - Mouse, keyboard, sound card w/ speakers, 2 USB ports, 1 serial port, and 1 printer port (minimum)

SOFTWARE

[Note: For software versions followed by an "*", supply the most current version.]

Type of Software

- Office Suite
- Portable Document (.pdf) Reader ...
- Virus Protection/Computer Utilities ..
- Virus Definition Updates
- Firewall
- Firewall Updates
- File Compression

NYSDOT Requirement/Standard

Office XP Professional (MicroSoft)
Acrobat Reader 5.1* (Adobe)
Norton SystemWorks Professional Edition 2004* (Symantec)
For the virus protection software, it is required to maintain the virus definitions for the duration of contract, this typically requires a service subscription for the updates after the first year.
ZoneAlarm (Zone Labs)
For the firewall software, it is required to maintain the virus definitions for the duration of contract, this typically requires a service subscription for the updates after the first 1 or 2 years.
WinZip 8.1* (WinZip Computing)
[Note: must provide a licensed copy]

*** **SAMPLE SPECIAL NOTE** ***
(NOT AN ACTUAL SPECIAL NOTE)

SPECIAL NOTE
Technical Requirements for
Item 637.3501---20 – Desktop Computer

- Road/Route Mapping Streets & Trips 2004* (MicroSoft)
- Photo Viewer/Indexing ThumbsPlus v5* (Cerious Software)
- CD Creator Easy CD & DVD Creator 6* (Roxio)

State-provided software which the computer must be capable of operating :

Type of Software

- Construction Management
- E-mail
- CADD – drafting
- CADD – design
- CADD – file management
- Project Scheduling
- Network Management

NYSDOT Standard

- CEES 4.0x (NYSDOT)
- Groupwise 6 (Novell)
- MicroStation v8.1 (Bentley)
- InRoads v8.4 (Bentley)
- ProjectWise v8.1 (Bentley)
- SureTrak 3.0 (Primavera)
- LANDesk Client (LANDesk Software)