

1. There seems to be pricing requirements for a number of items and services without firm specifications, including furniture and IT equipment.
 - a. Please explain how and when specifications and requirements will be provided.
Please refer to the specifications for the room modifications at the Traffic Operations Center Room Modifications on page 4. Cost Detail Item #2 shall be TOC Modifications with a LUMP SUM (LS) unit cost.
 - b. Will pricing for items such as furniture be negotiated after contract award?
This can be discussed in negotiation phase of the RFP.
2. Section 1.4.5 states that prices for products and services must remain firm for 5 years. Would the City consider price adjustments based on an index such as the Producer Price Index (PPI)? **This can be discussed in negation phase of the RFP.**
3. Can you clarify the role of cost in the selection process? There are sections of the RFP that state pricing will be submitted during the second phase of the procurement process but pricing is asked for as part of the RFP response. Please clarify when the City would like pricing included and should it be a separate sealed package or as an integral part of the proposal? **Cost estimates are requested as a means for determining the feasibility of constructing the proposed system and are not the sole deciding factor in the selection process. Cost along with staff qualifications, technical solution and experience will all be considered in the selection process.**
4. Will a tax exemption certificate be provided by the City? If not, should sales tax be included for all equipment? **Yes, the city is tax exempt.**
5. Please provide details regarding the video wall workstations and how these will be used.
Please refer to the attached specifications for the room modifications at the Traffics Operations Center.
6. We have the following observations and would like to know if these will be a problem:

These observations should be part of your proposals and discussed during negotiations.
7. Section 1.4.1 of the RFP indicates the following:
 - a. The network pictured in Attachment C is currently in place and already configured.
 - b. "...City staff or designated contract representatives..." are responsible for configuration and integration.
 - c. Respondent is to "provide support," i.e. not configure, integrate or design, "to verify system redundancy."

If our understanding of the RFP is correct, we have the following questions:

- a. What communications and hardware are currently in place (Type of comm.. and model #'s of equipment)? **Twisted Pair communications and TS2 cabinets are in place for Task 1.**
- b. Do the maps and diagrams represent planned communications or do they represent existing communications? **Planned communications.**
- c. What if any, existing communications and hardware are planned to be re-used in the new system? **Twisted pair communications and TS2 cabinets are planned to be re-used under Task 1. Internet access at the TOC will be made available for communications to the proposed field drop. Twisted pair communications will be replaced with fiber optic cable by others during Task 2.**
- d. What involvement will the City or its contractors have with communications work both field and LAN? **The contractor will be responsible for all activities under Task 2.**
- e. What, if any, responsibilities will the respondent have for communications design, procurement and installation? **Coordination for the DSL drop and associated hardware (identified as router and adapter in attachment C) and any other miscellaneous network peripherals.**

- 1. There are several references to the TOC regarding furniture, partitions, and construction but we could not find any detail as to the size, style, type and quantity required. **Please refer to the specifications for the room modifications at the TOC detailed on page 4.**
- 2. The Cost Detail sheet and the Mandatory Requirements list have differences:
 - a. Bid #6 UPS server shows 2; however, only 1 equipment cabinet is called for?
All necessary equipment for the full build out of the proposed system (as illustrated in Task 2) will be purchased under this project; however, the test conditions will only simulate an isolated system (refer to Task 1).
 - b. Bid #10 Application Servers. 4 servers are necessary to accommodate the 500 intersection maximum build-out. Only 2 servers would be required for the Task 1 phase. There are references to a secondary TOC and storage locations. What is the desired quantity, where are they located?
4 servers will be required, two of which will be installed at the secondary TOC located at City Hall. The two servers to be installed at City Hall are to be Blade Server compatible with

existing City IT Blade Servers. Please coordinate with City IT for exact specifications.

- c. Bid #11-13. Only 1 KVM switch, equipment cabinet, and basic network switch are identified. Is this for the primary TOC? Is an additional set required for the secondary TOC, storage?

Yes, this equipment is intended for the primary TOC. No additional equipment will be required as the blade servers will not require a KVM switch at the secondary TOC, and the equipment cabinet and network switches are being provided by the City and other sources, respectively.

- d. Bid #14. Network Attached Storage Device. Only 1 device is called for, but it also requires a warm-backup facility with nightly backups done between primary and secondary, which would warrant additional storage devices. Is this backup requirement a future capability?

The TOC at City Hall will utilize the existing Citywide IT storage devices; thus, additional devices are not required. A standalone warm backup will be provided in the future once the network supports the equipment under Task 2.

- e. Bid #17-17. There are no specifications for the printer and plotter.

Please refer to the attached specifications for the printer and plotter on page 14.

3. It is not clear to us what will be required of the supplier/integrator to enter into this contract relationship with regards to such things as licenses, bonds, etc. **A right-of-way permit will not be required. Contractor's license and bonds will be required by Purchasing for Contract.**

TRAFFIC OPERATIONS building room modifications

1. DESCRIPTION

Furnish and outfit a new traffic operations center (TOC) room in the Traffic Operations Building located at 513 Oyster Point Road in Newport News, VA. The TOC room is to include conference room furniture, an LCD video wall enclosure, LAN devices, and cabling between the NNTE field network and the TOC room.

The existing room is currently unoccupied and consists of two windows on the eastern wall, an adjoining door on the southern wall, an access door to the hallway on the western wall located approximately at the midpoint of the wall, a sink vanity in the northwest corner, and two workstations. The following specifications will refer to the directions north, south, east, and west as left, right, outer, and inner, respectively.

The Traffic Operations Superintendent's office is located across from the proposed TOC room. Interconnect between the TOC room and the network room with the Superintendent's office is to be provided in addition to outfitting the TOC room.

2. MATERIALS

A. GENERAL

Furnish and install only materials that are approved by the Engineer and are approved by GSA contracts.

B. CONFERENCE AREA FURNITURE

Furnish and outfit a conference area in the left half of the new TOC room. The conference area shall consist of four tables on lockable casters for maneuverability. Tables shall be made of scratch-resistant laminate with t-mold edge banding. Tables shall be a minimum 18 inches in width and shall not exceed 24 inches in width. Table length is restricted to 60 inches. Final dimensions and color must be approved by the Engineer.

A minimum ten (10) chairs shall be provided with a maximum of twelve (12). Chairs shall be made with a round-back design with armrests and casters. Seating surfaces shall be made of 2 inch thick padding and be upholstered with a heavy duty fabric. Chair height shall be adjustable.

C. OPERABLE PARTITION WALL

Furnish and install an acoustic operable partition wall between the conference and workstation areas and align the wall such that the switch receptacle adjacent to the entry door is contained within the conference area. The partition wall shall consist of seven-24 inch segments with a 4 inch permanent wall segment adjacent to the room entry door. The wall should be a total of 172 inches in length when fully extended. Contractor is responsible for final measurements of space prior to ordering material. All panels shall be minimum 3 inches thick with a heavy duty fabric finish. Panel edges shall be made of reinforced vinyl.

Partition wall shall extend from floor to ceiling. The wall shall be self supporting and not require support from a ceiling hanger system. Only a ceiling guidance track system shall be required.

D. LCD VIDEO WALL ENCLOSURE

Furnish and install an LCD video wall enclosure that can accommodate up to four (4) 60" LCD monitors. Monitors shall be arranged in a 2 x 2 arrangement. A minimum two (2) monitors shall be installed during construction at the topmost position. Accommodations shall be made such that two (2) additional monitors can be mounted below the initial two monitors such that the bottom of the monitors are no less than 24" above the floor.

LCD monitors shall be mounted directly to the wall on approved wall mount devices. Wall mounts shall be capable of rotating 30 degrees vertically. The mount shall reticulate a minimum 15" away from the wall and protrude from the wall no more than 3" when stored. The contractor shall fabricate and furnish a video wall enclosure to conceal all cables. The enclosure shall be finished in a color identical to that of the adjacent wall. The enclosure shall be easily removed for access to and maintenance of the monitors. The contractor shall submit a shop drawing for the video wall enclosure and mounting hardware for approval prior to purchasing any materials.

A separate VGA/DVI/RCA combination cable shall be routed from behind the video wall to a jack adjacent to the entry door on the inner wall. 15 feet of slack cable shall be provided at the jack for use with a laptop computer.

E. ELECTRICAL AND NETWORK CABLING SUPPORT

Contractor shall provide all electrical and networking jacks and peripherals required for operation of workstation and conference area equipment. A total of four (4) local area network (LAN) standard Ethernet RJ45 jacks shall be provided for all four LCD monitors. Exact location of jacks is indicated in the plans.

Contractor is responsible for providing electrical power to each workstation and four LCD monitors. Contractor is responsible for surveying the room for adequate power supply and installing new jacks where required. The cost of new duplex outlets will be incidental to providing workstation and video wall equipment.

An uninterruptible power supply (UPS) shall be provided for each workstation and a minimum one (1) UPS shall be provided for the video wall. All power strips shall provide at least eight electrical outlets, four of which shall be supported by the UPS backup power source.

F. DROP CEILING CONDUIT AND HANGER SUPPORT SYSTEM

Contractor shall install 1 1/2" plenum rated conduit in the drop ceiling to route plenum rated single mode fiber optic (SMFO) cable (48 strand) from the existing conduit entry into the building on the southeast corner of the Operations Building to the signal shop office as indicated in the plans. The conduit shall accommodate the bend radius of the cable. Any continuous

bends in the conduit shall not exceed 90 degrees. Plenum rated SMFO cable (48 strand) shall connect to the proposed NNTE network at a splice enclosure located in a junction box outside the building, as indicated on the plans.

A conduit hanger system shall be installed by the Contractor to support the 1 ½” plenum rated conduit, spaced no more than 10 feet apart. The hanger bracket shall consist of a u-shaped clamp with a fastening bracket and be made of stainless steel. The bracket shall be supported by a minimum 1” diameter galvanized steel down rod that suspends the conduit no more than 6 inches above the drop ceiling and is fastened to existing steel framing or other rigid structure in the ceiling.

All materials and hardware required to install the conduit and hanger support system shall be furnished and installed by the Contractor.

G. ADDITIONAL FACILITY DEVICES AND SUPPORT

Contractor shall furnish and install a rack mountable Ethernet switch, patch panel, fiber optic terminal server, and four video servers in the office of the Traffic Operations Superintendent. Category 6 (CAT6) and plenum rated fiber optic cable shall also be furnished and installed to provide interconnect.

CAT6 cable shall provide connection between the TOC room and the Superintendent’s office.

Plenum rated fiber optic drop cable shall be terminated in the Superintendent’s office from the Newport News Traffic Engineering network.

Refer to section 801 of these special provisions for Ethernet switch, and patch panel specifications.

Furnish UPS units that are sized such that each is capable of providing back-up power for the total load of all equipment connected to the UPS plus an additional load of twenty-five percent of the total load for at least ten (10) minutes of operation. Furnish minimum of one UPS unit per newly furnished equipment rack up to the number required to meet the back-up time requirement for the load for the equipment on the rack.

Furnish UPS units that act as surge and power transient suppression devices that meet or exceed the surge suppression requirements of Underwriter’s Laboratory standards UL 1449 and UL 1778.

Furnish UPS units that shall be capable of interfacing with management software resident on application servers and computer workstations capable of initiating a device shutdown based on

user adjustable parameters. The software shall also be able to interrogate each unit regarding remaining battery load. Furnish UPS units that can be integrated into computing and network devices via a 10Base-T LAN connection and contain a RJ-45 port and network interface card to facilitate such connection. The UPS shall communicate using TCP/IP unless otherwise approved by the Engineer and shall be IP addressable. Furnish UPS units with a USB port for direct connection to a computer. All software provided shall operate in a Windows 2003 or 2008 environment unless otherwise approved by the Engineer.

Furnish UPS units with the following characteristics:

- Commercial 115 VAC, 60 Hz power interconnection and power loss sensing and alarm reporting
- Power protection and filtering
- Power conversion for battery charging
- Battery status sensing and low battery alarm reporting
- Battery charging and charge management
- Battery power conversion and filtering as necessary for interface compatibility with installed equipment
- Compliance with article 645 of the National Electric Code (NEC)
- Operating temperature Range 32 Degrees F to 105 Degrees F
- Humidity 0%-95%, non-condensing
- Size less than 5.25" (3RU) tall
- Surge energy rating greater than 480 joules
- Electrical outlets 6 NEMA 5-15R

3. CONSTRUCTION METHODS

A. GENERAL

Contact Engineer prior to entering any building. Coordinate and obtain approval from Engineer regarding allowable working time in buildings.

Prior to core drilling or otherwise creating new entrance into an existing building, obtain approval of methods and materials from the Engineer. In all cases, create entrance that is weatherproof and water tight.

Whenever possible, use existing cable raceways, ducts, raised floors, and drop ceilings to route fiber optic cable.

Perform all work called for in the plans to enter building, install cable conduits and cable raceways, and to route cabling in raised floors, drop ceilings, and new and existing conduits.

B. CONFERENCE AREA FURNITURE

Install conference area furniture in the left half of the new TOC room as indicated on the plans. Tables shall be assembled together so as to create one (1) large conference table. Chairs shall be distributed around the table perimeter.

C. OPERABLE PARTITION WALL

Install acoustic operable partition wall to divide workstation and conference areas. The partition wall shall be secured to the wall bump-out on the outer wall with manufacturer supplied fasteners. Position the mounting hardware such that the wall, when retracted, stores neatly against the outer wall and is not hindered by the adjacent workstation. Install the ceiling track perpendicular from the bump-out on the outer wall to the opposite side of the room, terminating at the inner wall to the left of the existing switch receptacle. Install a 4 inch partition wall receptacle joint on the inner wall with manufacturer supplied fasteners. See plans for details.

Contractor is to restore any damaged ceiling fixtures or tiles to pre-construction conditions. Contractor is responsible for making final measurements to ensure proper operation and storage of the wall.

D. LCD VIDEO WALL ENCLOSURE

Mount two (2) 55" LCD monitors on approved mounting devices at a height such that the top of the monitor is at least 6" below the ceiling and the base of the monitor is greater than 48" above the floor. Monitors shall be positioned at the center of the left wall with cables concealed behind the monitors.

Install fabricated video wall enclosure and secure to the wall with removable wing nut fasteners, or approved equal. When secured, the wall shall not be susceptible to unhinging or significant movement by minor contact from persons or other objects. Provide openings in enclosure for future LCD monitors below the top two monitors. Cover openings with black coated, tightly spun wire mesh or other similar ventilating material.

Install surface raceway to conceal VGA/DVI/RCA combination cable to route to a jack adjacent to the entry door on the inner wall. Raceway shall be attached to the wall using manufacturer provided fasteners. Raceway shall be finished in white.

E. ELECTRICAL AND NETWORK CABLING SUPPORT

A cluster of four (4) LAN Ethernet RJ45 jacks for the video wall shall be installed at the center of the wall so as to be concealed behind the video wall enclosure. All jacks shall be installed a minimum 16 inches above the floor. Contractor must label each jack with the corresponding port number on the patch panel in the Superintendent's office. Labels shall be

affixed to the face of each jack.

All new electrical duplex outlets shall be rated at 20A and provide 120V +10% electrical power. All outlets shall be installed a minimum 16 inches above the floor. Conductors and receptacles shall be enclosed in UL listed cable raceways and enclosures. Fasten raceways and enclosures securely to the wall and paint with a scratch resistant finish to match existing wall color.

F. ADDITIONAL FACILITY DEVICES AND SUPPORT

CAT6 cable shall provide connection between the TOC room and the patch panel in the Superintendent’s office. Contractor shall run a single cable for each of the four (4) jacks in the TOC room. Cables shall be run overhead through the drop ceiling.

Plenum rated fiber optic drop cable shall be terminated in the Superintendent’s office at a rack mounted terminal server on the existing wall mounted equipment rack. Drop cable shall be run from a splice located in an outdoor junction box, indicated on the plans. Video servers for the proposed LCD video wall monitors shall be installed on the same equipment rack. See the plans for exact cable run instructions.

4. MEASUREMENT AND PAYMENT

Traffic Operations Center Room Modifications will be measured and paid as a lump sum for the complete modification and includes conference area furniture, operable acoustic partition wall, video wall enclosure and LCD mounting hardware, cable raceways, electrical receptacles, breakers, UPS units, network cabling and devices, and surface mount faceplates. The Contractor shall also furnish and install the plenum rated conduit, cable, and conduit hanger system. No separate measurement will be made for fasteners, attachment assemblies, or any other equipment or labor required to complete the room modifications.

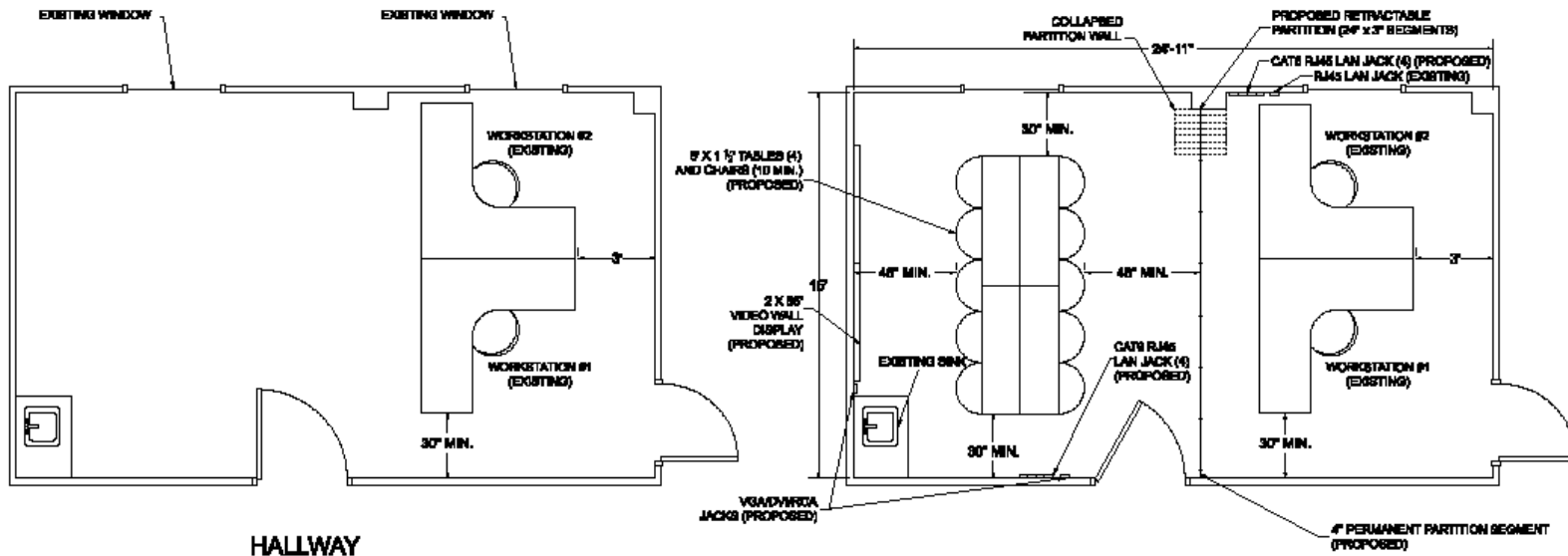
All payments for the building modification items will be made in accord with the following conditions: 75% of the payment will be made upon acceptance of the room modifications; 25% of the payment will be made following final acceptance of the integrated system (including completion of the 60 day observation period).

Payment will be made under:

Traffic Operations Center Room ModificationsLump Sum

See Attached TOC plan

FRONT OF BUILDING
PARKING LOT



EXISTING TOC @ OPERATIONS CENTER DETAIL
NOT TO SCALE

PROPOSED TOC @ OPERATIONS CENTER DETAIL
NOT TO SCALE

Laser Printer (color) for the TOC shall be provided that is networked to the LAN and meets the following minimum requirements:

- Utilizes the PCL 6 printer language featuring commands for fully integrated HP-GL/2 vector graphics and advanced imagery/special effects printing with a minimum of 80 internal, scalable fonts.
- Utilizes the latest version of Windows print typefaces.
- Provides a minimum of 128 MB of RAM.
- Provides modular input/output (I/O) and Ethernet 10/100/1000 Base-T network communications protocols.
- Comes equipped with an Ethernet 10/100/1000 Base-T network interface card, one (1) USB port, and one (1) open EIO expansion slot.
- Prints a minimum 27 pages per minute (ppm) for both color and black and white prints.
- Provides 600 sheet capacity and 3 input trays supporting 8.5 x 11 inch, 8.5 x 14 inch, and 11 x 17 inch media.
- Prints a print resolution of a minimum 600 x 600 DPI.
- Physical dimensions: 25"x25"x30" maximum

A color plotter for the TOC shall be provided that is networked on the LAN and that meets the following minimum requirements:

- 10/100 Ethernet port
- Support 42"W paper rolls
- 1200 x 600 dpi