



ARLINGTON COUNTY, VIRGINIA

**County Board Agenda Item
Meeting of May 19, 2012**

DATE: April 16, 2012

SUBJECT: Award of Contract to Chesapeake Electrical Systems, Inc. for construction of the Phase Two Fiber Optic Network Project.

C. M. RECOMMENDATION:

1. Approve award of Contract Number 676-12 to Chesapeake Electrical Systems, Inc. in the amount of \$7,441,393.10
2. Approve an additional allocation of \$558,974.02 for contingencies, engineering and inspection, for a total contract amount authorization of \$8,000,367.12
3. Authorize the Purchasing Agent to execute the contract documents, subject to approval by the County Attorney.

ISSUES: The County Board approval is required for the award of a contract to Chesapeake Electrical Systems, Inc. for construction of Phase Two Fiber Optic Network. There are no outstanding issues.

SUMMARY: In Phase Two Fiber Optic Network Project, approximately ten miles of fiber optic cabling will interconnect 101 traffic signals. As part of the project, two separate 144 strand fiber optic cables will be installed; one each for Intelligent Transportation System (ITS) and Connect Arlington (CA) Network applications. This fiber optic cabling will form the backbone of County's communication network that will supplement and eventually replace its existing twisted pair (copper) and leased Comcast network.

BACKGROUND: The County has planned to upgrade its existing "ITS Management & CA-Net Plant" to a state-of-the art fiber optic technology in three phases. The overall project consists of replacing the existing 52 miles of outdated and unreliable twisted pair (copper) communication system with a more reliable, faster and scalable fiber optic system. Phase One of the project consisting of six miles at a cost of \$4.6M has recently been completed.

County Manager:

County Attorney:

MNC

25.

Staff: Amit Sidhaye, Department of Environmental Services

The total estimated cost of the project (all three phases) is approximately \$20M. The County has been able to secure \$12.6 M to date in various federal grant funds. These funds can only be used towards the ITS portion of the project. The CA-Net portion of the fiber optic cables will be funded from existing local County sources.

Upon implementation, the project will help Arlington County to upgrade its aging “ITS Management and Communication” system. The existing communication system built in early 1980’s, is nearing the end of its useful life. Due to increased number of failures, the system has become unreliable and uneconomical to maintain. It also lacks the speed and capacity to meet our present and future communication needs. Given these conditions, it is necessary to replace the copper system with a state-of-the art fiber optic system. The new system will not only help the County maintain our existing traffic signals operation at peak performance, but will also give the County enormous capability for future expansion as new technologies in ITS management and communications became available. It will also provide better communication to select County facilities and will help Public Safety agencies monitor special events and reduce response time to incidents.

This contract provides for the construction of the second phase of the project consisting of approximately ten miles of fiber optic communication network along Rosslyn, Columbia Pike and Crystal City corridors (map attached). The project consists of two 144 strand fiber cables; one each dedicated to ITS and CA-Net.

DISCUSSION: The Purchasing Agent received the following responsive bids on March 6th, 2012 at 2:00 PM.

<u>Bidders</u>	<u>Bid Amount</u>
1. Chesapeake Electrical Systems, Inc.	\$ 7,441,393.10
2. Fort Myer Construction Corporation	\$ 7,886,856.30
3. Midasco, Inc.	\$ 7,888,888.00

The lowest bidder, Chesapeake Electrical Systems, Inc., was found to be a responsible bidder and the bid submitted was responsive to the invitation to Bid Number 676-12. The Bid Amount shown above reflects a change to the total bid amount of \$7,444,554.41 shown on the Bid Form submitted by Chesapeake Electrical Systems, Inc., due to correction of extension errors. It is recommended that the contract be awarded to Chesapeake Electrical Systems, Inc.

Additional funds of \$558,974.02 will be needed to cover contingencies, engineering and inspection costs. Therefore, the total recommended contract authorization is \$8,000,367.12

FISCAL IMPACT: The total estimated cost for the County to administer this phase of the overall project is \$8,000,367.12. Sufficient funds are available in following accounts:

1. \$7,775,378.37 in federal grant funds for the ITS portion of the project are available in Account 313.43514.T88S.319.0000. These expenses will be fully reimbursed to the County by VDOT and revenue will be appropriated when received.

2. \$224,988.75 in County funds for the CA-Net portion of the project is available in Account 546.437405.91205.FIBR.0000.0000.



Arlington County ITS Phase 2



- Legend**
- C-Net
 - ITS Phase 2 (spur)
 - ITS Phase 2 (trunk cable)
 - Conduit From Other Projects
 - Old Dominion
 - Columbia Pike
 - Columbia Pike Streetscape
 - Dominion Power - Lee Hwy
 - Dominion Power - Radnor Hts.
 - Long Bridge Park
 - Cnet Hubs
 - Public Safety Radio Site
 - CNet Sites
 - County Facility
 - Education Center
 - School Facility
 - Fire Station
 - Library
 - Pumping Station
 - Traffic Signal
 - Existing CCTV

