


City of Alexandria, Virginia

MEMORANDUM

DATE: AUGUST 30, 2016

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: MARK B. JINKS, CITY MANAGER 

SUBJECT: PROPOSED ACCELERATION OF THE CITY I-NET REPLACEMENT PROJECT

The Approved FY 2017 Capital Improvement Program (CIP) reflected plans to proceed with additional planning and engineering work necessary for the eventual replacement of the City's Institutional Network (I-Net). The City currently leases its I-Net from Comcast, but as staff has discussed with Council, there are significant operational and financial advantages to constructing a City-owned network for the future.

The City Broadband team (City staff, ACPS staff, and IT Commission representatives), with outside technical assistance, is currently working to develop the preferred implementation strategy for the I-Net construction project. The overall project will likely take at least two to three years to complete, and may take longer depending on available advantages from leveraging other infrastructure construction projects (e.g., complete streets, sanitary and storm sewers). With that in mind, the City has a compelling "dig once" opportunity available immediately. This opportunity will allow the City to complete part of the I-Net construction project earlier, and provide at least \$1.2 million in long-term financial savings and reduced impact on the community from duplicative street right-of-way work. If the City proceeds to implement a community broadband project with the private sector, this proposed new I-Net will be sized now to accommodate future non-governmental broadband use.

The Department of Project Implementation has recently begun implementation of the Intelligent Transportation System Phase 2 project (ITS Phase 2). The scope of this project includes the installation of conduit and fiber in the right-of-way throughout portions of the West End, Old Town, and Potomac Yard in order to connect more of our traffic signals and future traffic cameras to the City's central traffic control computer. The location of this conduit and fiber is in exact alignment with the planned location of the City's I-Net backbone.

There are several significant advantages to utilizing a "dig once" approach and implementing these two projects together. The first is financial – by using the contractor for ITS Phase 2 to provide this additional I-Net conduit work, the City can save approximately \$1.2 million versus implementing the projects separately. This savings comes primarily through shared construction staging, inspection services, and boring costs. Additional savings is provided because the City does not need to procure separate engineering work for the I-Net portion of this ITS Phase 2 project. When the City developed early cost estimates for the I-Net last year, those estimates assumed we would be able to find savings such as these during implementation. Not leveraging "dig once" opportunities will increase the overall cost of the project above those early estimates.

The second advantage of a “dig once” approach is a reduction in community impact. Fiber installations like the ITS Phase 2 and City I-Net projects involve penetrating and digging up the City’s right-of-way, which can negatively impact traffic flow. This joint dig work will be performed in parts of the West End, Old Town, and Route 1 adjacent to Potomac Yard that experience some of the City’s heaviest traffic volumes. Additionally, right-of-way installation work in Old Town is particularly complicated. Minimizing the number of times the City installs new infrastructure in these areas is highly beneficial.

PROJECT SCOPE: The ITS Phase 2 project is comprised of 3 priority areas. Maps of these priority areas are attached to this memo. Work on priority area #1 is now underway. The City has issued a purchase order to the contractor to include the I-Net installation for priority area #1 at this time. Purchase orders for priority areas #2 and #3 are to be issued in the near future.

FISCAL IMPACT: The cost of this portion of the I-Net construction is estimated at \$1.4 million. This cost will be funded through additional proceeds from the City’s recent bond issuance. When the City sold its bonds in July, the lowest bidder paid a large cash premium for the bonds. This netted the City \$10.5 million above the amount of bond proceeds the City was planning on. While these bond premium funds would normally be held for programming in the upcoming FY 2018 Capital budget, this opportunity to save at least \$1.2 million makes a strong case to accelerate \$1.4 million forward into FY 2017 for this City I-Net replacement. These costs are already projected in a future year of the City’s approved 10-year CIP, but this opportunity allows the City to accelerate the project schedule.

PROJECT ELEMENT	COST
Area #1 cost	\$790,000
Area #2 cost	70,000
Area #3 cost	340,000
Contingency 10%	120,000
Dedicated Inspector	80,000
Total	\$1,400,000

FUTURE STEPS: In accordance with the accepted I-Net implementation timeline provided to City Council this Spring, the Broadband team will continue to develop the preferred approach for implementing the remainder of the I-Net construction project scope this summer and will update City Council later this Fall on the plan. The plan will look at future “dig once” opportunities and incorporate them as much as possible. However, it is likely that additional opportunities that are currently unknown will surface in the coming years and the City will work to leverage them to the best extent possible.

ATTACHMENTS:

Attachment 1 – I-Net Fiber Project Maps

cc: Laura Triggs, Deputy City Manager
Mitch Bernstein, Director, DPI
Michael Stewart, Deputy Finance Director