



January 18, 2019

Mr. Phillip Francis
Director of Operations
Livonia Public Schools
15125 Farmington Road
Livonia, MI 48154

RE: Contract Modification Recommendation for Barton Malow Technology Design Services

Dear Mr. Francis:

The Bond Team recommends a modification to Barton Malow's contract for Technology Design services in conjunction with the bond project. As construction timelines have shifted and the scope of technology projects has evolved over time, it has become necessary to extend Barton Malow's contract to complete the technology projects associated with the bond. This modification includes additions to Barton Malow's scope for additional services provided as a result of the expansion of existing projects as well as the addition of new projects, as detailed below. This modification also accounts for additional effort that Barton Malow has expended to complete existing technology projects as a result of changes in the overall project schedule, including changes to the construction schedule. Detailed discussions were held with the Bond Team and Barton Malow to develop and confirm the scope for this extension, which is outlined below. Included in those discussions was a review of scope that was originally in Barton Malow's contract but no longer required, credits for those savings were included in the determination of the final costs presented below. Note that this represents work that is currently ongoing and/or has been previously completed by Barton Malow. Summary of scope:

- New technology scope:
 - Additional design, procurement and implementation management services for the Jackson Early Childhood Center
 - Design and planning services for relocation of the District data center
 - Re-bid and replacement of the District's wireless network infrastructure allowing LPS to leverage E-Rate funding while upgrading the network to more modern technologies.
Note that the District is anticipating to be reimbursed over \$345,000 in E-Rate funds as a result of this effort.
- Expansion in scope of existing technology projects:
 - Significant expansion of the scope of technology cabling projects throughout the District, with approximately \$1.5M in additional project work being completed beyond the originally planned scope.
- Project timeline modifications:
 - Completion of open contracts beyond Barton Malow's original contract end date of July 2018 due to construction schedule extensions.
 - The deferral of several projects, notably the digital signage project and firewall upgrade
 - The redistribution and implementation of previously installed technologies to existing buildings based on LPS re-districting

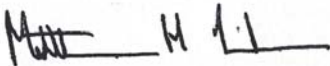
Budget for this modification will be allocated from existing bid savings and the technology contingency budget. The total cost for this extension is **\$189,545 and will be detailed in an amendment to Barton Malow's contract**, pending final review of terms by LPS legal counsel. These costs are detailed as follows:

ITEM	TIMING	SCOPE	DESCRIPTION	COST
1	2017	New	Addition of Jackson Early Childhood Center Redesign and redistribution of existing technologies at multiple buildings	\$46,175
2	2018 (Jan – July)	New/Expansion	Additional data cabling work Data center relocation planning Redistribution of existing technologies	\$56,065
3	2018 (Aug – Dec)	Timeline Extension	Complete open contracts for 2018 projects	\$40,480
4	2018	New	Wireless re-bid for E-Rate (expected E-Rate reimbursement is over \$345,000)	\$46,825
			TOTAL	\$189,545

The Project Team is available to answer any questions you may have related to this recommendation.

Sincerely,

PLANTE MORAN CRESA



Matt Lindner
Senior Manager

Enclosures: Award Recommendation Letter

December 3, 2018

Mr. Tim Klan
Administrator of Information & Instructional Technology
Livonia Public Schools
15125 Farmington Road
Livonia, Michigan 48154

RE: 2017-2018 Contract Extension (Revised)

Dear Tim,

Barton Malow is pleased to submit the following proposal to extend our contract to include the additional work completed in 2017 and the additional 2018 bond technology projects. This proposal is based on the discussions throughout 2017 and 2018 with you and Matt Lindner taking into consideration (1) additional scope throughout the project, (2) credits for scope savings throughout the project, and (3) extending the contract through Dec. 2018. The general scope of the extension includes:

Wireless Rebid: Cost: \$46,825.00

After completing the wireless infrastructure project that began in 2014, an opportunity came to leverage approximately \$345,000 in e-rate funds to replace the network infrastructure in 2017-18 with 802.11ac Wave 2 access points. This entailed a redesign and rebid of the wireless infrastructure to meet the e-rate funding requirements and implementation management for the network replacement. The board approved this project in November 2017 for completion in 2018.

2017 Extension: Cost: \$46,175.00

Due to the shifting construction schedule and building closures, additional technology work was completed beyond the scope of work planned for 2017. Work included:

1. Jackson Early Childhood Center that wasn't in the original scope
2. Revisiting and redesigning technology systems at buildings that had been completed before the building closures:
 - a. Cooper Elementary
 - b. Grant Elementary
 - c. Hayes Elementary
 - d. Hoover Elementary
 - e. Kennedy Elementary
 - f. Randolph Elementary
 - g. Roosevelt Elementary
 - h. Frost Middle School

**2018 Extension: Cost: \$56,065.00 (January thru July)
Cost: \$40,480.00 (August thru Dec)**

The original contract scope was based on implementation work being completed by 2017 with minor closeout work in 2018 with a contract end date of July 2018. Due to the shifting construction schedule and additional work, the following projects extended throughout 2018 along with additional work completed.

1. Data center relocation planning
2. Complete redistribution of existing technologies due to building closures
3. Complete the implementation management for work under contract with Presidio, Amcomm, VSC, Sentinel, Sound Engineering and Digital Age at the following buildings:
 - a. Buchanan Elementary School
 - b. Churchill High School
 - c. Jackson ECC
 - d. Livonia Career Technical Center
 - e. Webster Elementary School
 - f. The Administration Campus

This is based on Rob Greager's actual hours through October 2018 plus the discussed average 20 hours per week through the rest of 2018.

Client Responsibilities

It is understood that the Livonia Public Schools will provide the following:

1. Establish the goals and budget for the project;
2. Assign a staff member from technology services to act as the liaison with Barton Malow and building staff;
3. Maintain project accounting moving forward after reconciliation meeting with Barton Malow and PMCRESA;
4. Process contractor pay applications.

Thank you again for the opportunity to continue partnering with the Livonia Public Schools. If you have any questions, please call me at (248) 436-5832.

Proposed By:

Accepted By:



Paul Twigg
Barton Malow Company

Livonia Public Schools

Cc: Matthew Lindner – Plante Moran



January 18, 2019

Mr. Phillip Francis
Director of Operations
Livonia Public Schools
15125 Farmington Road
Livonia, MI 48154

RE: Contract Modification Recommendation for Barton Malow Technology Design Services

Dear Mr. Francis:

The Bond Team recommends a modification to Barton Malow's contract for Technology Design services in conjunction with the bond project. This modification includes additions to Barton Malow's scope for technology design and implementation management services for the Niji-Iro Japanese Immersion Elementary School. It also includes work to support the expansion of the District's fiber-optic wide area network to provide for additional redundancy and survivability (above and beyond the originally planned scope for the bond), a project that the technology team wishes to add to the scope of the bond and is made possible through cost savings realized throughout the bond project. Detailed discussions were held with The Bond Team and Barton Malow to develop and confirm the scope for this extension, which is outlined below. Summary of scope:

- Niji-Iro Japanese Immersion Elementary School
 - Design, procurement and implementation management services for all technologies at Niji-Iro:
 - Technology infrastructure (network, wireless, cabling)
 - Communications systems (PA and Voice over IP)
 - Classroom technologies
 - Digital signage
 - The intent is to complete these projects via change orders to existing contractors to leverage already competitively bid costs and ensure consistency in the solutions that are implemented throughout the District
- Fiber-optic Wide Area Network: design, procurement and implementation management services to support the expansion of the network to provide additional redundancy and survivability

The term for this extension is through November 2019, and budget will be allocated from existing bid savings and the technology contingency category of the bond technology budget. Note that the design work for the fiber project is dependent upon approval from local utilities. If the process for this approval extends the project beyond November of 2019 an additional modification to Barton Malow's contract will be required to complete the project. The total cost for this extension is **\$103,880 and will be detailed in an amendment to Barton Malow's contract**, pending final review of terms by LPS legal counsel.

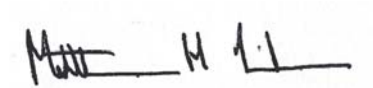
These costs are detailed as follows:

ITEM	DESCRIPTION	COST
1	Niji-Iro Japanese Immersion Elementary School	\$49,200
2	Fiber-optic Wide Area Network	\$54,680
	TOTAL	\$103,880

The Bond Team is available to answer any questions you may have related to this recommendation.

Sincerely,

PLANTE MORAN CRESA



Matt Lindner
Senior Manager

Enclosures: Award Recommendation Letter

December 3, 2018

Mr. Tim Klan
Administrator of Information & Instructional Technology
Livonia Public Schools
15125 Farmington Road
Livonia, Michigan 48154

RE: 2019 Contract Extension

Dear Tim,

Barton Malow is pleased to submit the following proposal to extend our contract to include the additional work for Niji-Iro and the expanded fiber replacement. This proposal is based on the discussions to date with you and Matt Lindner and extends the contract thru November 2019.

1. Bid and manage the implementation for the following:
 - a. Private fiber optic wide area network modifications
2. Extend all services for the 2019 renovation to Niji-Iro Japanese Immersion Elementary School through change order to companies currently under contract (Presidio, Amcomm, VSC, Sentinel, Sound Engineering and Digital Age) for the following systems:
 - a. Structured Cabling
 - b. Network/Wireless Infrastructure
 - c. Telephone System
 - d. Classroom Audiovisual
 - e. Public Address
 - f. Digital Signage

Scope of Work

1. Meet with district technology staff to identify the goals for the project;
2. Review schematic bid documents with district technology staff;
3. Incorporate modifications from the owner review into the final documents to be issued for bid;
4. Issue documents to known bidders and bidders who have contacted the district. Prepare advertisement to bid for the district to publish in the local paper and state website;
5. Preparation of addenda and response to document clarification requests as required through bidding phase;
6. Interview bidders to ensure proposals include the required scope;
7. Prepare a summary the bids for presentation to the Board of Education for their approval;
8. Review contractor performance bonds and insurance including provisions for stored equipment at their facilities;
9. Review installation standards with LPS and contractor;
10. Conduct update meetings with contractors and provide regular updates to LPS administration;
11. Review installation issues periodically during installation and upon substantial completion at each building;
12. Review contractor pay applications; and
13. Assemble close out documents including checklists for devices, waivers, etc.

Client Responsibilities

It is understood that the Livonia Public Schools will provide the following:

1. Establish the goals and budget for the project;
2. Assign a staff member from technology services to act as the liaison with Barton Malow and building staff;
3. Maintain project accounting moving forward after reconciliation meeting with Barton Malow and PMCRESA;
4. Process contractor pay applications.

Costs

Barton Malow proposes to provide the above services for a lump sum cost of \$103,880 including:

Niji-Iro Work:	\$ 49,200.00
Fiber WAN Work:	\$ 54,680.00

If the project extends beyond November 2019 due to fiber permitting and make-ready delays or LPS wishes to expand our services, we will discuss modifying the extension once the final scope and schedule are set.

Thank you again for the opportunity to continue partnering with the Livonia Public Schools. If you have any questions, please call me at (248) 436-5832.

Proposed By:

Accepted By:



Paul Twigg
Barton Malow Company

Livonia Public Schools

Cc: Matthew Lindner – Plante Moran