

*Please remember to sign the Visitor's Register – Thank you.*

**Facilities Meeting  
Tuesday, January 10, 2017**

**7:00 PM – ROOM 200 - TEAO**

**AGENDA**

- I. Public Comment**
- II. Approval of Minutes**
  - a. November 17, 2016**
- III. Construction Report**
  - a. Change Orders**
- IV. Discussion and Update Items**
  - a. Locker Replacements at Valley Forge Middle School Bid Results**
  - b. Doors and Door Hardware at New Eagle Elementary School Bid Results**
  - c. CCTV Security Engineering Study – Peter Heverin, TeraNet and Keith McCall, Kteck**
  - d. Capital Sources and Uses**
  - e. Committee Goals**
  - f. Other**
  - g. Recap of Action Items**
- V. Future Facilities Committee Meetings to be held 7:00 p.m. at the TEAO in Room 200**
  - a. Tuesday, February 21 , 2017**
  - b. Tuesday, March 21 , 2017**
  - c. Tuesday, April 18 , 2017**
  - d. Wednesday, May 17 , 2017**
  - e. Wednesday, June 7 , 2017**
- VI. Adjournment**

**2017 Committee Goals - DRAFT**

1. Monitor student enrollment, township reports, District programs and existing school facilities.
2. Review and update the District Infrastructure Report.
3. Use Goal #1 and #2 to match school facilities to District need.
4. Develop, review, and prioritize the facilities projects for summer 2017.
5. Monitor, review and determine impact of District-wide parking and traffic study for all buildings.
6. Monitor, review and determine impact of District-wide Security Engineering Study.
7. Monitor, review and determine impact of air conditioning study at Elementary and Middle Schools.

**Facilities Committee Meeting Minutes**  
November 17, 2016  
Room 200 – Tredyffrin/Easttown Administration Office  
5:00 p.m.

**Attending all or part of the meeting:**

- Board Committee Members: Virginia Lastner, Chair, Michele Burger, Todd Kantorczyk, Edward Sweeney
- Other Board Members: None
- T/E School District Representatives: Dr. Richard Gusick, Art McDonnell, Colm Kelly, David Francella, Mark Cataldi, Stephanie Demming
- Other: Tom Daley from Daley + Jalboot Architects  
Peter Heverin from TeraNet  
Keith McCall from Kteck
- Community Members: Heather McConnell, Lynn Orr, Christine Wright, Ray Clarke, Anne McCarthy,

**Public Comment:** None

**Approval of the Minutes:**

- The Committee approved the minutes from the October 20, 2016 meeting.

**Construction Report:**

- Mr. Daley updated the Committee on the Maintenance and Storage Center building project with the completion date targeted for the end of month.
- Mr. Daley stated there were no new change orders to present to the Committee and the total amount of change orders for the entire group of 2016 projects is \$50,722.83 or .688% of the total projects' costs.
- Mr. Daley also updated the Committee on the VFMS pathway with the design plans currently being finalized. The project is on schedule, with the submission of the design plans to Tredyffrin Township occurring soon.

**Gift to BES from BES PTO:**

- Anne McCarthy from the BES PTO informed the Committee of a gift the PTO would like to donate to BES. It is turf grass, to be placed on a 1,980 square foot section of ground next to

the school. The timeframe for the project is the Spring 2017, with a cost of approximately \$24,000. The Committee thanked Mrs. McCarthy for the gift and asked that they return once monies were raised and the project was in the next stage.

**Gifts to VFES from Girl Scout Troop #4143:**

- Heather McConnell and Lynn Orr from Girl Scout Troop #4143 informed the Committee of a gift of a Buddy Bench they would like to donate to VFES. The Buddy Bench would be placed near the playground area. The timeframe for the purchase is still being determined, with the cost estimated at \$500. The Committee thanked the Troop for their planned gift and asked them to return when the bench can be installed.

**CCTV Security Engineering Study:**

- Mr. McDonnell reviewed the background of the existing security system and why there are needs to upgrade and the parameters approved by the Committee for the study.
- Peter Heverin from TeraNet and Keith McCall from Kteck updated the Committee on what their study has covered thus far. The existing system needs replacing along with additions and integration to meet the expectations of the system. Mr. Heverin and Mr. McCall recommended a three phase approach to design and installation with a reasonable expectation that the cost estimates for each would decrease after bids are received.
- The Committee asked to see costs identified by equipment needed to run the network and which items could be added to the system as is expanded.
- Mr. Heverin and Mr. McCall will continue to prepare a design to build a bid document and bring it back to the Committee for review.

**Public Comment:**

- Christine Wright commented on CCTV Security System
- Ray Clarke commented on CCTV Security System

**Future Meeting Dates:**

- TBD

**Adjournment:**

- The meeting adjourned at approximately 7:01 p.m.

**Facilities Committee Meeting**  
**Construction Report**  
January 10, 2017

---

**2017 Construction Projects:**

1. Project #1485 – Locker Replacements at Valley Forge MS
  - Issued for Bid November 30, 2016
  - Bids Received December 21, 2016
  - Committee Review January 10, 2017
  - Board Approved January 23, 2017
  - Scheduled Construction Start: June 19, 2017
  - Scheduled Completion: July 14, 2017
  
2. Project #1488 – Doors & Door Hardware at New Eagle ES
  - Issued for Bid November 30, 2016
  - Bids Received December 21, 2016
  - Committee Review January 10, 2017
  - Board Approved January 23, 2017
  - Scheduled Construction Start: February 8, 2017
  - Scheduled Completion: June 19, 2017
  
3. Project #1492 – Turf Replacement at Teamer Field
  - Issued for Bid February 7, 2017
  - Bids Due March 7, 2017
  - Committee Review March 21, 2017
  - Board Approved March 27, 2017
  - Scheduled Construction Start: June 19, 2017
  - Scheduled Completion: August 18, 2017
  
4. Project #1490 – Renovations, Replacements & Upgrades at Conestoga HS & Hillside ES
  - Issued for Bid February 7, 2017
  - Bids Due March 7, 2017
  - Committee Review March 21, 2017
  - Board Approved March 27, 2017
  - Scheduled Construction Start: June 19, 2017
  - Scheduled Completion: August 18, 2017
  
5. Project #1484 – Replacements & Upgrades at Beaumont ES, Valley Forge ES & Valley Forge MS
  - Issued for Bid February 7, 2017
  - Bids Due March 7, 2017
  - Committee Review March 21, 2017
  - Board Approved March 27, 2017
  - Scheduled Construction Start: June 19, 2017
  - Scheduled Completion: August 18, 2017
  
6. Project #1487 – Renovations, Replacements & Upgrades at New Eagle ES
  - Issued for Bid February 7, 2017
  - Bids Due March 7, 2017
  - Committee Review March 21, 2017
  - Board Approved March 27, 2017
  - Scheduled Construction Start: June 19, 2017
  - Scheduled Completion: August 18, 2017

- 7. Project #1489 – Replacements & Upgrades at Tredyffrin/Easttown MS
  - Issued for Bid March 14, 2017
  - Bids Due April 11, 2017
  - Committee Review April 18, 2017
  - Board Approved April 24, 2017
  - Scheduled Construction Start: June 19, 2017
  - Scheduled Completion: August 18, 2017
  
- 8. Project #1486 – Site Paving Repairs and Replacements at Devon ES & Valley Forge MS
  - Issued for Bid March 14, 2017
  - Bids Due April 11, 2017
  - Committee Review April 18, 2017
  - Board Approved April 24, 2017
  - Scheduled Construction Start: June 19, 2017
  - Scheduled Completion: August 18, 2017
  
- 9. Project #1491 – Replacements & Upgrades at Tredyffrin/Easttown Administration Office
  - Issued for Bid April 26, 2017
  - Bids Due May 24, 2017
  - Committee Review June 7, 2017
  - Board Approved June 12, 2017
  - Scheduled Construction Start: September 1, 2017
  - Scheduled Completion: October 31, 2017



January 3, 2017

Mr. Arthur McDonnell  
Tredyffrin / Easttown School District  
West Valley Business Center  
940 West Valley Road, Suite 1700  
Wayne, PA 19087

Re: Change Orders for Approval  
Infrastructure 2016  
T/E School District

Dear Art:

The following are change orders submitted for review at the January 10, 2017 Facilities Meeting. These were approved during the course of construction by the Administration to allow for work to proceed without delay.

**Project #1445 Renovations, Replacements & Upgrades at T/E Middle School**

- EC-1 Electric Changes for CU-2 and CU-3 Add \$ 7,806.97  
Philips Brothers Electrical Contractors, Inc.
- MC-2 Electric Changes for CU-2 and CU-3 Credit \$ 7,806.97  
Myco Mechanical, Inc.

During the course of the work, a manufacturer change was allowed related to the replacement air conditioning equipment for the Large Group Rooms. This change dictated electrical power improvements. As provided for in the contract, the cost for this improvement is to be borne by the contractor who requested the change to the specified equipment. The two change orders above are a corresponding add for the electrician and offsetting credit by the mechanical contractor.

**Project #1370 New Maintenance & Storage Building**

- GC-2 Tiled Shower Surrounds Add \$ 9,704.53  
L.J. Paoletta Construction, Inc.
- PC-1 Shower Credits Credit \$ 9,704.53  
AKC Mechanical, LLC

To facilitate completion of the project, the general contractor was asked to construct tiled shower surrounds, in lieu of the specified prefabricated units that were to be provided by the plumber, and that were delayed. The two change orders above are a corresponding add for the general contractor, and an offsetting credit by the plumbing contractor.

We will review these change orders in detail at the Facilities Meeting. Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "TOM". The letters are stylized and connected.

Thomas Daley, AIA  
DALEY + JALBOOT ARCHITECTS



**2016 PROJECTS SUMMARY**

January 10, 2017

Tredyffrin/Easttown School District

CO	Item	Accepted	Pending	Under Review
<b>2016 Projects Summary</b>				
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$50,722.83		
	Change Orders Accepted, Pending and Under Review	\$50,722.83		
	Base Bid and Accepted Alternates	\$7,368,572.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$7,419,294.83</b>		<b>0.688%</b>
<hr/>				
<b>1370 New Maintenance &amp; Storage Building</b>				
GC-1	Earthwork Remediation - stone & fabric	\$10,689.00		
GC-2	Tiled Shower Surrounds		\$9,704.53	
PC-1	Miscellaneous Plumbing Changes			TBD
PC-2	Shower Surround Credits		(\$9,704.53)	
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$10,689.00		
	Change Orders Accepted, Pending and Under Review	\$10,689.00		
	Base Bid and Accepted Alternates	\$3,768,007.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$3,778,696.00</b>		<b>0.284%</b>
<hr/>				
<b>1443 Devon &amp; Hillside ES - Renovations, Replacements &amp; Upgrades</b>				
PC-1	Cleanout Extension	\$658.69		
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$658.69		
	Change Orders Accepted, Pending and Under Review	\$658.69		
	Base Bid and Accepted Alternates	\$286,450.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$287,108.69</b>		<b>0.230%</b>
<hr/>				
<b>1444 New Eagle &amp; Valley Forge ES - Renovations, Replacements &amp; Upgrades</b>				
GC-1	Wall Prep at New Eagle Kitchen	\$1,620.00		
EC-1	Relocate Electrical Items	\$1,571.50		
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$3,191.50		
	Change Orders Accepted, Pending and Under Review	\$3,191.50		
	Base Bid and Accepted Alternates	\$795,209.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$798,400.50</b>		<b>0.401%</b>
<hr/>				
<b>1445 T/E Middle School - Renovations, Replacements &amp; Upgrades</b>				
MC-1	Sill Line Control Valves	\$9,867.46		
MC-2	Power Modifications at CU-2 and CU-3		(\$7,806.97)	
EC-1	Power Modifications at CU-2 and CU-3		\$7,806.97	
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$9,867.46		
	Change Orders Accepted, Pending and Under Review	\$9,867.46		
	Base Bid and Accepted Alternates	\$1,574,676.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$1,584,543.46</b>		<b>0.627%</b>



CO	Item	Accepted	Pending	Under Review
<b>1446 Valley Forge Middle School - Renovations, Replacements &amp; Upgrades</b>				
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$0.00		
	Change Orders Accepted, Pending and Under Review	\$0.00		
	Base Bid and Accepted Alternates	\$168,685.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$168,685.00</b>		<b>0.000%</b>
<b>1446A Valley Forge Middle School - Locker Replacements</b>				
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$0.00		
	Change Orders Accepted, Pending and Under Review	\$0.00		
	Base Bid and Accepted Alternates	\$60,190.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$60,190.00</b>		<b>0.000%</b>
<b>1446B Valley Forge Middle School - Doors &amp; Hardware Purchase</b>				
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$0.00		
	Change Orders Accepted, Pending and Under Review	\$0.00		
	Base Bid and Accepted Alternates	\$121,910.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$121,910.00</b>		<b>0.000%</b>
<b>1447 Conestoga HS, Teamer Field, T/E Administration Building - Renovations, Replacements &amp; Upgrades</b>				
GC-1	Add Blocking to Step Risers	\$1,343.86		
MC-1	Added Valve Replacement at CHS Boiler Room	\$10,726.00		
MC-2	Ductwork Modifications at TEAO	\$6,170.00		
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$18,239.86		
	Change Orders Accepted, Pending and Under Review	\$18,239.86		
	Base Bid and Accepted Alternates	\$379,925.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$398,164.86</b>		<b>4.801%</b>
<b>1448 Conestoga HS - VCT Floor Reconditioning &amp; Replacements</b>				
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$0.00		
	Change Orders Accepted, Pending and Under Review	\$0.00		
	Base Bid and Accepted Alternates	\$133,830.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$133,830.00</b>		<b>0.000%</b>
<b>1460 Valley Forge MS - Site Fencing</b>				
GC-1	Fence Changes	\$8,076.32		
	Change Order Totals Under Review			\$0.00
	Change Order Totals Pending		\$0.00	
	Change Order Totals Accepted	\$8,076.32		
	Change Orders Accepted, Pending and Under Review	\$8,076.32		
	Base Bid and Accepted Alternates	\$79,690.00		
	<b>Construction total to date   Percentage of Construction</b>	<b>\$87,766.32</b>		<b>10.135%</b>



December 30, 2016

Mr. Arthur McDonnell  
Tredyffrin / Easttown School District  
West Valley Business Center  
940 West Valley Road Suite 1700  
Wayne, PA 19087

Re: Bid Review  
Locker Replacements at  
Valley Forge Middle School  
DJA #1485

**D R A F T**

Dear Art,

Attached is the bid sheet for the Locker Replacements at Valley Forge Middle School project. The scope of work includes replacement of the corridor lockers in the 600 wing of Valley Forge Middle School. This is a similar scope to the replacements that were done over the last two years in the 700 & 800 wings.

The District received two bids. As you will note, the base bid is higher than the estimate. This year the District is replacing the remaining lockers to close out the work at VFMS. This wing includes 450 replacement lockers as compared to the 340 lockers we replaced last year in the 800 wing. The increase in the bid amount corresponds as a percentage to the increase in the locker count.

Budget Estimate Total:	\$	65,000.
Bid Total:	\$	<u>83,800.</u>
Difference - Over:	\$	18,800.

The low bid contractor is W.B. Mason. This is a company that is a regular supplier to the School District. This vendor also performs furniture installations which is how they have categorized this work.

The District is in the process of reviewing the contractor qualifications and bid documents, we expect this to be completed next week. Let me know if you have any questions.

Sincerely,

Thomas Daley  
DALEY + JALBOOT ARCHITECTS

**Bid Results -  
Locker Replacements at  
Valley Forge Middle School  
Tredyffrin/Easttown School District**

**December 21, 2016**  
DJA #1485

<b>General Contract</b>	<b>W.B. Mason</b>	<b>L.J. Paoella</b>
General Base Bid	\$83,800.00	\$85,688.84



**DALEY+JALBOOT**  
Architects Inc

December 30, 2016

Mr. Arthur McDonnell  
Tredyffrin / Easttown School District  
West Valley Business Center  
940 West Valley Road Suite 1700  
Wayne, PA 19087

Re: Bid Review  
Doors & Door Hardware at New Eagle Elementary School  
DJA #1488

**D R A F T**

Dear Art,

Attached is the bid sheet for the Doors & Door Hardware at New Eagle Elementary School project. The scope of work includes purchase of Replacement Doors & Hardware for New Eagle Elementary and selected openings at Hillside Elementary and Valley Forge Middle. The bid is for a total of 132 doors, which includes the 24 doors in Add Alternates #1 & #2. As was the case in the last two years, the doors and hardware will be installed by the District Maintenance carpenters.

As you will note, the bid including Add Alternates is under the estimate, as noted below.

Budget Estimate Total:	\$ 162,588.
Bid Total:	\$ <u>141,000.</u>
Difference - Under:	\$ 21,588.

The low bid contractor is Liberty Door Systems (a subsidiary of Unified Door & Hardware Group). This is the contractor that supplied the doors last year for Valley Forge Middle School.

The District is in the process of reviewing the contractor qualifications and bid documents, we expect this to be completed next week. Let me know if you have any questions.

Sincerely,

Thomas Daley  
DALEY + JALBOOT ARCHITECTS

**Bid Results -  
Doors & Door Hardware at  
New Eagle Elementary School,  
Hillside Elementary School & Valley Forge Middle School  
Tredyffrin/Easttown School District**

**February 11, 2016**

DJA #1488

<b>General Contract</b>	<b>Unified Door &amp; Hdwe DBA Liberty Door</b>
General Base Bid	\$101,885.00
Add Alt #1 - Additional Doors & Hdwe at NEES	\$19,725.00
Add Alt #2 - Additional Doors & Hdwe at HES & VFMS	\$19,390.00
<b>Total w/ Add Alternates</b>	<b>\$141,000.00</b>

Infrastructure Projects 2016 - 2017  
Tredyffrin Easttown School District

Daley + Jalboot Architects  
1-3-17

D R A F T

DJA#	Infrastructure Projects		DJA Construction Estimate	Bid	Difference
1485	TE - Locker Replacements, VFMS GC - W.B. Mason	\$ 83,800	\$ 65,000	\$ 83,800	\$ 18,800
1488	TE - Provide Doors & Door Hardware, NEES, VFMS, HES GC - Unified Door & Hardware Group	\$ 141,000	\$ 162,588	\$ 141,000	\$ (21,588)
<b>Infrastructure Total - Bid to Date</b>			<b>\$ 227,588</b>	<b>\$ 224,800</b>	<b>\$ (2,788)</b>
1484	TE - Replacements & Upgrades, BES, VFES, VFMS		\$ 838,000	\$ -	\$ (838,000)
1487	TE - Renovations, Replacements & Upgrades, NEES		\$ 874,810	\$ -	\$ (874,810)
1490	TE - Renovations, Replacements & Upgrades, CHS, HES		\$ 917,247	\$ -	\$ (917,247)
1492	TE - Turf Replacement, Teamer Field		\$ 640,000	\$ -	\$ (640,000)
1486	TE - Site Paving & Paving Replacements, DES, VFMS		\$ 170,000	\$ -	\$ (170,000)
1489	TE - Renovations, Replacements & Upgrades, TEMS		\$ 840,000	\$ -	\$ (840,000)
1491	TE - Renovations & Upgrades, TEAO		\$ 395,000	\$ -	\$ (395,000)



**DALEY+JALBOOT**  
Architects Inc

December 29, 2016

Mr. Arthur J. McDonnell  
Tredyffrin / Easttown School District  
West Valley Business Center  
940 West Valley Road Suite 1700  
Wayne, PA 19087

Re: Project Update  
Boiler Replacement at Valley Forge ES  
DJA #1484

**D R A F T**

Dear Art,

As we discussed last week, our team has completed the detailed survey work at Valley Forge Elementary School related to the Boiler Replacement project. Based on this review by Schiller & Hersh, and input from the District staff, we recommend that the scope of the project be modified to include the replacement of both boilers with the same arrangement as was used at New Eagle Elementary School in 2014.

This change will convert this building from a steel fire-tube boiler system to a condensing boiler system, this will increase the efficiency from 85% to above 95%. As part of this increase we will also remove a small pulse boiler that is 12 years old and is approaching the end of its useful life. Overall, we will simplify and improve both the operation and maintenance of the heating plant at this school.

We estimate that this change will increase the construction cost from an estimated \$325,000 for this line item to \$425,000. This change will also increase the fees for the project by \$7,400 for the additional engineering and coordination.

Let me know if you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'TOM'.

Thomas Daley  
DALEY + JALBOOT ARCHITECTS

cc: Colm Kelly  
Richard Gusick

## EXECUTIVE SUMMARY

### Introduction

The Tredyffrin/Easttown School District (TESD) engaged K-tecK, Inc.; a local technology consulting and engineering firm; to study their school district sites (buildings and associated properties) and provide a report documenting recommendations on their existing Closed-circuit television (CCTV) systems. The objective of this report is to provide strategic planning for infrastructure, equipment and capital improvements in keeping with the School Administration safety and security goals for all persons who use their properties, their assets and the school district assets that reside on their properties. Key to the planning of safety and security of the school district sites is deterrence and potential prosecution of crimes to persons and property. To accomplish this, KtecK security professionals performed infrastructure, camera, video management/control systems surveys/analysis of the existing CCTV security system. Local school personnel experience and knowledge were also referenced to produce the final recommendations.

This planning report includes analysis and recommendations from Mr. Keith F. McCall and his IP Video team; experienced, seasoned, IP video engineering professionals with 30 years of security and technology, engineering, consulting, design and application experience. This CCTV Systems Planning Report represents the first phase of a multi-phased project to upgrade the existing TESD CCTV system. The next phases if these planning recommendations are accepted will be the engineering and design of Specifications and Drawings, public bidding, contract with a qualified CCTV Systems Integrator and installation during the school summer vacation timeframe.

### Existing CCTV System

The TESD has existing CCTV Systems at each school with the majority of cameras deployed at the High School. Each school's CCTV system is independent of the others and monitored on local video workstation PCs. The High School and Middle Schools consist of primarily 10 year old Analog Camera systems that are outdated and past their beneficial usefulness. The High School has added IP cameras in the last 3 years, these are recommended to be integrated into the new IP camera system. The Elementary Schools standalone entrance IP cameras were added after the Sandy Hook incidence; due to the importance of the entrance, these cameras should be replaced with the new system.



The existing camera and workstation counts at each school are as follows:

<i>Building</i>	<i>Existing Analog Cameras</i>	<i>Existing IP Cameras</i>	<i>IP Cameras to be Integrated</i>	<i>Existing(E) / New(N) CCTV Workstations</i>
Conestoga High School	76	22	22	11 (E)
TE Middle School	9	0	0	5 (E)
Valley Forge Middle School	9	0	0	5 (E)
Hillside Elementary School	0	2	0	2 (E)
Beaumont Elementary School	0	1	0	2 (E)
Valley Forge Elementary School	0	1	0	2 (E)
Devon Elementary School	0	1	0	2 (E)
New Eagle Elementary School	0	4	0	2 (E)
Network Operation Center	0	0	0	1 (N)
Administration Building	0	0	0	1 (N)
Maintenance Building	0	0	0	1 (N)

### Recommended New CCTV System

K-tecK, Inc. is recommending a complete new, integrated, IP CCTV Systems for the TESSD. The new system will be based around a new Genetec Video Management System (VMS) with new system headend server and centralized video storage located in the Network Operations Center MDF for all IP camera video streaming over existing dark fiber from each of the eleven TESSD buildings. Camera recording is recommended for a minimum of 30 days.

Recommendations include a new IP CCTV network that contains new Cisco network switches in each school's MDF and IDF's with new CAT 6 PoE camera connections and existing district fiber 10 Gb backbone connections to the new VMS storage servers in the NOC MDF. The School District has standardized on Cisco network electronics and we plan to stay with that standard. We are

proposing the Cisco Catalyst 3850 series of switches with PoE for plug-and-play camera addition.

The network backbone will use existing outside plant fiber between buildings and the District's Network Operations Center (NOC). We are proposing a new, separate IP CCTV network bridged to the existing district data network; which is included in the project planning level cost estimate.

VMS workstations are recommended in the same locations as they currently exist within each school and new workstations locations provided in the Network Operations, Administration and Maintenance Buildings.

Camera recommendations include high quality 3 MP Panasonic Pan-Tilt-Zoom (PTZ), 9 MP 360 / 180 degree and 3 MP fixed cameras located in and on the perimeter of each building covering interior and exterior public spaces. Camera density is highest in the High School for facial recognition in public and large group areas (*no teaching or private areas like lavatories*). The camera density is decreased for the middle schools to wider camera spacing that provides person details in the public areas. The camera density is further decreased in the elementary schools for observation in the public areas.

The PTZ cameras will have Auto Tracking built into the camera as well as a built-in distortion correction function with a Browser GUI (Graphical User Interface) that provides Spot and Quad display modes, electronic zoom, one shot capture, 9 Megapixel fisheye mode, Single and Double Panorama mode and Single and Quad PTZ mode. The PTZ cameras will be used in large areas like athletic fields and auditoriums.

The cameras are currently H.264, but H.265 should be available in 2017 (which provides better compression, lower bandwidth and less storage requirements) and we expect to have H.265 incorporated in next summer's Phase I IP CCTV installation. All fixed cameras will use motion detection to conserve disk space; the motion detection will be on for recording at all times and we expect recording of fixed camera video to happen for 50% of the time.

The following summarizes the new camera recommendations for each TESD building:

<i>Building</i>	<i>New IP PTZ Cameras</i>	<i>New Fixed IP Cameras</i>	<i>New 360/180 IP Cameras</i>	<i>Total New Cameras</i>
Conestoga High School	17	158	24	221*
TE Middle School	6	61	20	87
Valley Forge Middle School	5	72	19	96
Hillside Elementary School	4	55	9	68
Beaumont Elementary School	7	55	11	73
Valley Forge Elementary School	7	37	8	52
Devon Elementary School	5	35	7	47
New Eagle Elementary School	4	41	7	52
Network Operation Center	0	14	1	15
Administration Building	0	13	2	15
Maintenance Building	0	4	6	10

\* Conestoga HS includes 22 existing IP cameras that will be integrated into the new system.

### Phasing Recommendation

We recommend these CCTV system upgrades be divided into three (3) separate Design, Bid & Construction phases for installation, management, learning curve and budgetary considerations; which are defined as follows:

Phase 1 (Summer 2017 Installation): Includes the Conestoga High School and the Network Operations Center. This phase must include the system headend equipment mounted in the NOC MDF; which will contain a VMS system server and a failover VMS server, 30 days of RAID 5 video storage for all phase 1 video requirements. We also recommend the first installation site be Conestoga High School due to the age of the student population.

Phase 2 (Summer 2018 Installation): Includes Tredyffrin/Easttown Middle School, Valley Forge Middle School, Administration Office and the new Maintenance Building. A new video system storage server will be included in each building MDF for 30 days of RAID 5 video storage for their local cameras. The building MDF will be connected to the NOC MDF using existing single-mode dark fiber. A Mobile Server will be added to the NOC MDF on this phase for video viewing on personal cell or network connected appliances.

Phase 3 (Summer 2019 Installation): Includes the five (5) Elementary Schools. A new video system storage server will be included in each building MDF for 30 days of RAID 5 video storage for their local cameras. The building MDF will be connected to the NOC MDF using existing single-mode dark fiber.

## Cost Estimate

A planning level CSI cost estimate is included within this report for each of the three (3) recommended phases. The cost estimate contains costs for the Engineering design of the Bid Documents, Front End bidding and contract requirements including bond, insurance, tax, prevailing wage, Division 1 costs including mobilization, demobilization, etc. and the costs for a Security System Integrator (SSI) to purchase, install, program, test and close all recommendations listed in this report.

**Phase I** (*Conestoga HS, NOC*): budgeted cost is \$866,259.00. This cost estimate is planning level, providing budgeting information only within a margin of 10% of the final construction value. The Front End costs are estimated at \$10,000.00; the Division 1 allowances are estimated at \$8,600.00; the equipment and install costs are estimated at \$604,236.00; SSI overhead and profit are estimated at 20% of equipment and installation at \$104,672.00; and engineering / design of the Bid Documents is estimated at \$60,000.00. A 10% project contingency of \$78,751.00 is also included.

**Phase II** (*TEMS, VFMS, Administration and Maintenance Buildings*): budgeted cost is \$722,491.00. This cost estimate is planning level, providing budgeting information only within a margin of 10% of the final construction value. The Front End costs are estimated at \$9,000.00; the Division 1 allowances are estimated at \$7,500.00; the equipment and install costs are estimated at \$501,867.00; SSI overhead and profit are estimated at 20% of equipment and installation at \$88,443.00; and engineering / design of the Bid Documents is estimated at \$50,000.00. A 10% project contingency of \$65,681.00 is also included.

**Phase III** (*Five Elementary Schools*): budgeted cost is \$976,130.00. This cost estimate is planning level, providing budgeting information only within a margin of 10% of the final construction value. The Front End costs are estimated at \$8,000.00; the Division 1 allowances are estimated at \$7,500.00; the equipment and install costs are estimated at \$687,851.00; SSI overhead and profit are estimated at 20% of equipment and installation at \$124,040.00; and engineering / design of the Bid Documents is estimated at \$60,000.00. A 10% project contingency of \$88,739.00 is also included.

These cost estimates do not contain architectural, procedural, physical non-electronic security measures or policies and procedure changes.



# Proposal for Consulting Services

*Design, Bid & Construction Administration Services for  
Conestoga H. S. and the Network Operations Center at the  
Tredyffrin-Easttown School District*

*Project Name:* Network Design Project

*Prepared for:* Tredyffrin/Easttown School District  
Mr. Arthur J. McDonnell PRSBA, RSBA, Business Manager  
940 West Valley Road, Wayne, PA 19087

*Prepared by:* Teranet Consulting Services  
Peter J. Heverin

*Date Submitted:* January 6, 2017

# PROJECT SUMMARY

## Overview of CCTV Security Engineering Study

The Tredyffrin/Easttown School District (TESD) has requested Design, Bid & Construction Administration Services for Conestoga H. S. and the Network Operations Center for enhancements to the district-wide CCTV (closed circuit television) security system. The services will be provided in three parts: the design development based on the recommendations contained in the conceptual design document; management of the public bid process and award; and installation and construction administration. Teranet will be working with Keith McCall, vice president of Engineering at Kteck. Teranet will oversee the process and provide network integration to ensure capability with existing network services. Teranet will also provide coordination with district personnel and other professional services.

## Summary of Design, Bid and Construction Administration Services

Fee Schedule:

Teranet Consulting Services: <i>Lump Sum, Not-to-Exceed</i>	\$8,500.00
Kteck Engineering and Consulting, <i>based on the attached proposal.</i>	46,350.00

## Project Acceptance

---

Arthur J. McDonnell,  
Business Manager,  
Tredyffrin-Easttown School District



---

Peter J. Heverin,  
Infrastructure Consultant  
Teranet Consulting Services

---

Acceptance date

---

Completion Date



President:  
Karen R. McCall

VP of Engineering:  
Keith F. McCall

K-teck, Inc.  
565 Meadowbrook Ave.  
Ambler, PA 19002

Email: KeithMcCall@kteckinc.com  
Phone: 215.237.7390

Website: www.kteckinc.com

January 06, 2017 (Revision #1 – Revised Fees)

Mr. Peter J. Heverin  
Principal  
Teranet Consulting Services  
2 Colchester Place  
Newtown, PA 18940

## Proposal

SUBJECT: Fee Proposal – IP CCTV Upgrades Design, Bid & Construction Administration Services for TESD Conestoga H. S. and the Network Operations Center

Dear Mr. Heverin:

K-teck is pleased to submit this Fee Proposal requested by the District during our meeting with them on December 15, 2016. Our recently delivered IP CCTV Upgrades Planning Report outlined a three (3) phased approach to accomplish the IP CCTV upgrades for the TESD as follows:

**Phase 1** (Summer 2017 Installation): Includes the Conestoga High School and the Network Operations Center. This phase must include the system headend equipment mounted in the NOC MDF; which will contain a VMS system server and a failover VMS server, 30 days of RAID 5 video storage for all phase 1 video requirements. We also recommend the first installation site be Conestoga High School due to the age of the student population.

**Phase 2** (Summer 2018 Installation): Includes Tredyffrin/Easttown Middle School, Valley Forge Middle School, Administration Office and the new Maintenance Building. A new video system storage server will be included in each building MDF for 30 days of RAID 5 video storage for their local cameras. The building MDF will be connected to the NOC MDF using existing single-mode dark fiber. A Mobile Server will be added to the NOC MDF on this phase for video viewing on personal cell or network connected appliances.

**Phase 3** (Summer 2019 Installation): Includes the five (5) Elementary Schools. A new video system storage server will be included in each building MDF for 30 days of RAID 5 video storage for their local cameras. The building MDF will be connected to the NOC MDF using existing single-mode dark fiber.

This proposal is for Phase 1 Design, Bidding and Construction Administration Services listed above.



## **Introduction**

As with the Planning Report, this Phase 1 design, engineering and consulting work will be also be led by Mr. Keith McCall, a security engineer with over 25 years of security, engineering and consulting experience. Mr. McCall has performed CCTV consulting and engineering services for the Abington School District, Colonial School District, Plainfield School District and he just finished a major CCTV assessment with recommendations for the City of Wilmington.

K-tecK, Inc. shall design the IP CCTV systems and operations to reflect standard engineering and accepted industrial video security practices while at the same time incorporate techniques and equipment that reflect the special needs of the School District. Our major criteria for systems and component selection is compatibility with existing operations, flexibility, future interface/integration/expansion capability with the TESD, life cycle, and cost containment considerations. Our Planning Report included a Phase 1 Not-to-Exceed construction budget of \$870,000 (including the alternate adder), so we have provided tasks with associated fees for expected consulting and engineering services to design IP video systems within this budget. Our systems engineering, design and other services are detailed and are responsive to your immediate and long term needs - we do not provide “boiler plate” systems design. Also, we are not aligned with any equipment manufacturers - our equipment and systems recommendations are impartial. We provide an optimal array of equipment and systems reflective of your objectives and operational needs.

We will provide the following IP video security system designs as defined in the TESD IP CCTV Upgrades & Improvements Final Planning Report dated November 2016:

- IP CCTV upgrades for the Conestoga High School and Network Operations Center (NOC). Future expansion capabilities into the entire district (Phase 2 & Phase 3).
- New Video Management System for advanced IP video display, monitoring, control and recording capabilities, including failover server, mobile client server and future video applications integration.
- 199 New IP, PoE, megapixel, indoor / outdoor, color, vandal resistant, fixed, 180 / 360 degree and Pan-tilt-Zoom (PTZ) cameras strategically applied for maximum beneficial coverage. Includes replacement of 76 existing analog cameras and integration of 22 existing IP cameras.
- New 180 Tb, RAID 5 storage servers centrally located in the NOC offering a minimum of 30 days of H.264-15 high quality, 7 frames-per-second, motion activated video recording readily available for live and recorded video display on any workstation.
- Distributed video monitoring and control on new and existing PC Workstations running the VMS software located in Principal, Vice-Principal, front desk and administration areas.
- A new, separate, Cisco based, IP video network with a secure bridge to the existing School District data network; incorporating the H.264 data compression (H.265 may be available in time for this project).
- 10 Gbps backbone incorporating existing dark fiber between IDFs / MDF and MDF / NOC. New 1 Gbps CAT 6 PoE copper connections between IDF / MDF switches and new IP cameras.

- Generator backed, uninterruptible power supplies (UPS) for the video equipment will be incorporated for uninterrupted video storage.

### **Scope of Work**

To accomplish the work described in this proposal we have established level of effort assumptions for selected tasks. This approach is based on our Planning Report and our understanding of typical high school operations, existing building layout, security concerns, construction budget and our experience with similar projects. For example, the number of meetings with the TESD staff, meetings with the security contractor, the number of reviews, and the number of site visits during construction may vary; we have assumed a probable level of effort.

This document is divided in three technical proposal sections that include Phase I - Design Development, Phase II - Bid Review and Bidder Selection Assistance, Phase III - Construction Administration, and an Assumptions section. The Cost Proposal section is presented by project phase and associated cost.

## **TECHNICAL PROPOSAL**

### **PART I - Design Development**

K-tecK, Inc. will prepare detailed technical specifications for both the installation and the maintenance of the video system based on the architecture of the Phase 1 candidate video system to be installed at the TESD Conestoga High School and NOC. The specifications will include: a systems concept of operation; description of the design intent (both configuration and function); codes and standards; installation standards; documentation submittal requirements; interface requirements with any existing on-site video security system; test methodology requirements (system/equipment site acceptance testing); system training requirements; and preventative maintenance requirements. We will provide a directed and performance specification for the equipment selection for this facility.

Detailed drawings of equipment and system configurations will include; plan view drawings of equipment locations, riser diagram, equipment terminations, and typical mounting details for the TESD site/facility. The drawings will represent the equipment and system configurations, connections, typical layout, and typical exterior and interior mounting information. Architectural background drawings in CAD format are assumed available from the School District, if none exist in CADD then an adder will be required to digitize existing paper drawings.

A final coordinated set of Bid Documents including specifications and drawings will be provided the District for their beneficial usage to secure a Public Bid. An electronic set of Bid Documents will be provided for production by the District. All costs associated with the Public Bid process will be the responsibility of the District. A final construction cost estimate will also be provided.

K-tecK, Inc. will coordinate with the District's administration and maintenance personnel, Project Management, IT Department and other cognizant staff and contractors, as required. This will ensure that all concerns and requirements for on-site operations and component interface with the existing security system, if required, are achieved.

The "Consultants" propose to perform the following tasks:

- A. Engineering level site visits: This includes the engineering and installation requirements to install the new equipment shown on the planning phase documents. This includes investigation of existing equipment, building construction, conduits, pathways, power, racks, switches, cabling, etc.
- B. Design Pathways: Conduit and cabling pathways need to be designed. This includes new and existing wireways, new and existing conduit paths, wireless connections, underground pathways, solid concrete wall pathways, etc.
- C. Camera mounting: This includes concrete wall, drywall, hard ceiling, drop ceiling, open ceiling, gym, pole, parapet, interior, exterior, etc. camera mounting requirements. This includes all final detail locations of each camera.
- D. Camera Lenses: Camera lenses to be chosen for each location.
- E. Mounting Poles: Analysis of existing site camera mounting poles, existing conditions, existing power, existing fiber / Cat 6. Addition of new camera poles including type, base, construction, power, communications, equipment and more.
- F. Workstations: Design and verify PC's and monitors for new workstations.
- G. Connections: Analyze all fiber optic, power, Cat 6 connections.
- H. IT, MDF & IDFs: Existing racks, power, space for new IT equipment. Additional racks as required.
- I. Drawing Floor Plans: Include cable pathways, mounting info and specific work notes on Floor Plans;
- J. Drawing Elevations: Add engineering elevations of equipment mounting, poles, racks, attachments, etc.
- K. Drawing One-Lines: create detailed one-line drawings.
- L. Provide CSI MasterSpec format Specifications.
- M. Specification General Requirements: Write general requirements of the Bid including: Codes, qualifications, submittals, substitutions, testing, training, maintenance, warranty, close-out, etc.
- N. Equipment Specification Requirements: Write specific requirements for all video, network, monitor, power, pathways and connection specifications.
- O. Maintain a close coordination between Drawings & Specifications.
- P. Provide 90% Review & Bid Level drawing and specifications submissions.
- Q. Update the previous planning level cost estimate reflecting any changes. The estimate will be within the Project Budget or as appropriate.

- R. Provide alternate bid items where appropriate and approved.
- S. Calculations: Perform all final calculations including bandwidth, UPS, power, storage.

## **PART II - Bid Review and Bidder Selection Assistance**

K-tecK, Inc. will provide a pre-bid meeting with TCS and TESD. We will provide responses to the bidder's questions (RFIs) to clarify security related issues arising from the contractors bidding the project. We will review and evaluate the bidders' technical and cost proposals. We will examine all responsive and alternative solutions and will provide a recommendation for award.

## **PART III - Construction Administration**

K-tecK, Inc. will provide a pre-construction kick-off meeting with TCS, the District and the contractor awarded the project. We will review the security installation contractor's submittals of shop drawings, installation methods, equipment data sheets, equipment samples, and proposed subcontractors. We will evaluate conformance with design documents (specifications, drawings, and functional objectives). Any nonacceptable, nonconforming design documents that require security contractor resubmittal will be re-reviewed, as required.

During the installation phase, we will participate in bi-monthly project construction meetings, inspect the work progress, to provide direction to the security contractor and respond to installation questions and problems. We will provide construction site visits (every two weeks), which will be in tandem with project construction meetings, to assess work progress, provide direction to the installation contractor, and respond to installation questions and problems. We will record and issue reports of field inspections and follow-up to ensure compliance.

K-tecK will review the preparation of the security installation contractor's generated system training manuals, the operations and maintenance manuals, and the training procedures and course syllabus for conformance with technical accuracy and ease of end-user understanding. We will review the installation contractor's testing criteria, testing methodology, and test forms. We will review all vendor documents for adequacy and completeness. We will witness all final testing and resolve all discrepancies/nonconforming operations (punch-list) for retesting. We will issue a written recommendation for final system(s) acceptance.

## **Deliverables**

The following deliverables will be provided by KtecK, Inc.:

### **100% Design Review Set**

An electronic PDF 90% Design Review Drawings & Specifications set will be provided for Owner review and sign-off. A review meeting can be held or the Owners representatives can redline the set.

## **Bid Set**

An electronic PDF Bid Set of Drawings & Specifications will be provided for Owner beneficial use to procure public bids.

## **Oral Presentations**

K-tecK will provide the following meetings with TESD board / committee:

- One (1) Phase 1 Design Proposal (January 10, 2017);
- One (1) Bid Documents (March 2017);
- One (1) Bid Review and Recommendation (April 2017);
- One (1) Award (June 2017);
- One (1) Progress (July 2017);
- One (1) Progress (August 2017);
- One (1) Completion (September 2017).

## **ASSUMPTIONS**

This Assumptions section is included in our proposal for the purpose of defining the relationship between the services to be provided and the estimated costs to provide them. Since this is a fixed price contract the Consultant needs to define limits, e.g., the number of and complexity of drawings to be processed, the number of meetings anticipated, the extent of information to be included, etc., so that the level of detail is understood and that the cost estimates are fair and equitable for both the Client and the Consultant. Services beyond these defined limits are considered additions to the scope of work and will require additional fees. These tasks and related assumptions are cited as follows:

1. The drawings will not be sealed by a registered State of Pennsylvania Professional Engineer. All Agency submissions and the associated costs will be the responsibility of the TESD.
2. The video security design will be for a construction budget not to exceed \$867,000. If the budget is increased and the design requirements are expanded, then additional fees will be required.
3. The K-tecK, Inc. work is limited to the new Phase 1 IP video system, for interior and exterior of the Conestoga H.S. and NOC. We will design the video system head-end equipment configuration in a chosen location. Architectural or furniture modifications to the existing building are not included.

4. There will be a maximum of two (2) Phase I security design meetings and one (1) Phase II pre-bid site walk-down meeting with District representatives and the bidders. More can be provided at a time and material rate.
5. Drawings and Specifications will be provided in electronic PDF format to the District for reproduction. All costs associated with reproduction, Agency submission and bidding requirements will be the Districts responsibility.

**Fees & Reimbursable Expenses**

The project fees are listed below for services rendered. Reimbursement of all travel expenses, including ground transportation, meals, lodging, automobile mileage, document reproduction, and express mailing costs are included within this price.

**Part 1 – Design, Consulting & Engineering:**

Oral Presentations: (2 Meetings x \$300) = \$600.00  
Site Engineering Work: (10 Days x \$1,200) = \$12,000.00  
CCTV Design & Engineering: (4 Days x \$1,200) = \$4,800.00  
Network Design & Engineering (Reviewed by TCS): (3 Days x \$1,200) = \$3,600.00  
CAD Background Drawings: Received  
CAD Drawing Design Work: (11 Days x \$600) = \$6,600.00  
Specification Writing: (5 Days x \$1,000) = \$5,000.00  
90% & Bid Submissions: (6 hrs x \$75) = \$450.00  
Cost Estimates Updates: (4 hrs x \$150) = \$600.00

Total Design Fees: **\$33,650.00**

**Part 2 – Bidding:**

Oral Presentations: (2 Meetings x \$300) = \$600.00  
Pre-Bid Site Meeting: (4 hrs x \$150) = \$600.00  
Answer Questions: (4 hrs x \$150) = \$600.00  
Review & Letter of Recommendation: (1 Day x \$1,000) = \$1,000.00

Total Bidding Fees: **\$2,800.00**

**Part 3 – Construction Administration:**

Oral Presentations: (3 Meetings x \$300) = \$900.00  
Kick-Off Site Meeting: (4 hrs x \$150) = \$600.00  
Submittal Reviews: (10 hrs x \$150) = \$1,500.00  
Bi-Monthly Site Visits: (5 Days x \$1,000) = \$5,000.00  
Answer Questions: (6 hrs x \$150) = \$900.00  
Close-Out Work: (1 Day x \$1,000) = \$1,000.00

Total Bidding Fees: **\$9,900.00**

**Payment:** Monthly progress invoices will be submitted.

**Additional Work**

K-tecK, Inc. will be available to perform other work at \$150.00 per hour, plus reimbursable expenses including actual travel expenses, document reproduction and shipping costs that might be incurred.

**Scheduling**

Proposal Meeting: January 10, 2017  
Approval & Notice-to-Proceed: January 23, 2017  
90% Design Review Set Submission: March 10, 2017  
Bid Set Submission: March 31, 2017  
Bidding Phase: April 1, 2017 through May 12, 2017  
Award: June 2, 2017  
Kick-off: June 5, 2017  
Contractor Submittal Approval: June 12, 2017  
Conestoga H.S. & NOC Site Work: June 13, 2017 through August 15, 2017  
Substantial Completion: August 15, 2017  
Final Completion: September 1, 2017

K-tecK, Inc. looks forward to working with you on this important project. If you have any questions, or require additional information, please contact Keith F. McCall, our Chief Engineer, by cell at (215) 237-7390, or by email at [KeithMcCall@KtecKinc.com](mailto:KeithMcCall@KtecKinc.com). Please visit our web site at [www.kteckinc.com](http://www.kteckinc.com).

Sincerely,

*Keith F. McCall*

Keith F. McCall  
VP of Engineering



# Capital Sources & Uses (10 -Yr Plan)

	A	B	C	D	E	F	G	H	I
	2015-2016 Projected	2016-2017 Projected	2017-2018 Projected	2018-2019 Projected	2019-2020 Projected	2020-2021 Projected	2021-2022 Projected	2022-2023 Projected	Total Projected Projects
<b>Sources</b>									
1 General Fund Transfer to Capital Project	10,423,524	10,423,524	10,423,524	10,423,524	3,951,854	(2,113,102)	(8,303,511)	(13,132,920)	
2 Proceeds from Bond Issue	20,534,310	13,874,789	6,592,163	1,310,621	0	0	0	0	
3 Assigned Athletic Fund Balance	0	0	678,500	0	0	0	0	0	
<b>4 Total Sources</b>	<b>30,957,834</b>	<b>24,298,313</b>	<b>17,694,187</b>	<b>11,734,145</b>	<b>3,951,854</b>	<b>(2,113,102)</b>	<b>(8,303,511)</b>	<b>(13,132,920)</b>	
<b>Uses</b>									
5 Capital Improvement	859,669	429,497	1,709,478	698,980	714,452	1,863,214	238,660	1,621,756	8,135,706
6 Deferred Maintenance	2,224,125	3,392,968	2,653,167	5,967,430	3,886,508	3,075,730	3,739,396	2,896,926	27,836,250
7 Roofing	0	0	0	0	0	0	0	0	0
8 Regulatory/Safety	0	0	30,000	100,800	672,914	444,021	221,430	13,600	1,482,765
9 CCTV Security System	0	0	0	0	0	0	0	0	0
10 Vehicle Replacement	0	0	50,000	0	0	0	0	0	50,000
11 Teamer Field Turf	0	0	640,000	0	0	0	0	0	640,000
12 New Eagle Classroom Additions and Site Improv.	1,617,864	0	0	0	0	0	0	0	1,617,864
13 Maintenance/Storage Building	1,231,224	2,590,073	0	0	0	0	0	0	3,821,297
14 Retrofit Lighting Projects	0	0	100,000	0	0	0	0	0	100,000
15 Architect, District Costs and Contingencies	726,639	870,088	777,397	1,015,082	791,081	807,445	629,923	679,842	6,297,496
<b>16 Total Uses</b>	<b>6,659,521</b>	<b>7,282,626</b>	<b>5,960,042</b>	<b>7,782,292</b>	<b>6,064,955</b>	<b>6,190,410</b>	<b>4,829,409</b>	<b>5,212,124</b>	<b>49,981,378</b>
<b>17 Balance of Sources over Uses</b>	<b>24,298,313</b>	<b>17,015,687</b>	<b>11,734,145</b>	<b>3,951,854</b>	<b>(2,113,102)</b>	<b>(8,303,511)</b>	<b>(13,132,920)</b>	<b>(18,345,044)</b>	

Source: October 11 2016 Infrastructure Report

**Maintenance and Storage Building**

	<b>A</b>	<b>B</b>	<b>C</b>	<b>B+C=D</b>	<b>A+D=E</b>
	<b>Budget</b>	<b>Expenditures</b>	<b>Encumbrance</b>	<b>Project Total</b>	<b>Balance Remaining</b>
1 General Contractor - LJ Paoella	2,811,207.00	2,671,363.12	139,843.88	2,811,207.00	0.00
2 Mechanical Contractor - Myco	494,000.00	394,540.13	99,459.87	494,000.00	0.00
3 Plumbing - AKC	183,000.00	154,512.76	28,487.24	183,000.00	0.00
4 Electrical - AJM Electric	279,800.00	220,185.00	59,615.00	279,800.00	0.00
5 Architect Fees	94,216.00	90,991.08	3,224.92	94,216.00	0.00
6 Engineering Fees	143,625.00	143,625.00	0.00	143,625.00	0.00
7 Landscape Architect Fees	8,000.00	8,000.00	0.00	8,000.00	0.00
<b>8 Project Construction Total</b>	<b>4,013,848.00</b>	<b>3,683,217.09</b>	<b>330,630.91</b>	<b>4,013,848.00</b>	<b>0.00</b>
9 Feasibility Study	35,000.00	45,253.03	0.00	45,253.03	(10,253.03)
10 Architect Fees-Coordination Bids	4,959.00	4,959.00	0.00	4,959.00	0.00
11 Printing and Postage	0.00	0.00	0.00	0.00	0.00
12 Site Surveys, Testing	40,000.00	77,717.26	0.00	77,717.26	(37,717.26)
13 Permits & Approval	50,000.00	63,171.42	0.00	63,171.42	(13,171.42)
14 Legal	40,000.00	14,443.31	25,556.69	40,000.00	0.00
15 Technology	0.00	0.00	0.00	0.00	0.00
16 Furniture & Equipment	20,000.00	0.00	20,000.00	20,000.00	0.00
<b>17 Total Non-Contract Purchase</b>	<b>189,959.00</b>	<b>205,544.02</b>	<b>45,556.69</b>	<b>251,100.71</b>	<b>(61,141.71)</b>
18 Custodial Support	20,000.00	0.00	20,000.00	20,000.00	0.00
19 Maintenance Support	20,000.00	0.00	20,000.00	20,000.00	0.00
20 Security Support	15,000.00	0.00	15,000.00	15,000.00	0.00
21 Asbestos Removal (Incl. Supplies)	10,000.00	0.00	10,000.00	10,000.00	0.00
22 Project Supervision	15,000.00	38,091.94	0.00	38,091.94	(23,091.94)
23 Networking/Telephone/Security Wire	5,000.00	0.00	5,000.00	5,000.00	0.00
24 District Miscellaneous	5,000.00	0.00	5,000.00	5,000.00	0.00
<b>25 Total District Charges</b>	<b>90,000.00</b>	<b>38,091.94</b>	<b>75,000.00</b>	<b>113,091.94</b>	<b>(23,091.94)</b>
<b>26 Project Contingency</b>	<b>250,000.00</b>	<b>10,689.00</b>	<b>0.00</b>	<b>10,689.00</b>	<b>239,311.00</b>
<b>27 Total Project:</b>	<b>4,543,807.00</b>	<b>3,937,542.05</b>	<b>451,187.60</b>	<b>4,388,729.65</b>	<b>155,077.35</b>