

AGENDA
MONTGOMERY TOWNSHIP
BOARD OF SUPERVISORS
AUGUST 26, 2019

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Tanya C. Bamford
Candyce Fluehr Chimera
Michael J. Fox
Jeffrey W. McDonnell
Matthew W. Quigg

Lawrence J. Gregan
Township Manager

ACTION MEETING – 7:00 PM

1. Call to Order by Chairman
2. Pledge of Allegiance
3. Public Comment
4. Announcement of Executive Session
5. Consider Approval of Minutes of August 12, 2019 Meeting
6. Recognize Employee Resignations – Public Works Department & Finance Department
7. Donation Presentations- Montgomery County Norristown Public Library and Montgomery Township Historical Society
8. Consider Authorization to Contract with Keystone Lighting Solutions for Phase 3- Project Management (Construction) and Phase 4- Post Construction Operations and Maintenance Services- DVRPC Regional Streetlight Procurement Program
9. Consider Award of Bid - Leaf and Yard Waste Collection
10. Consider Approval of Out of State Training-Police Department
11. Consider Authorization to Advertise for Public Hearing – Intermunicipal Liquor License Transfer – Assi Plaza – 1222 Welsh Road
12. Consider Payment of Bills
13. Other Business
14. Adjournment

Future Public Hearings/Meetings:

08-27-2019 @ 7:30pm – Environmental Advisory Committee

09-09-2019 @ 7:00pm – Board of Supervisors

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Public Comment

MEETING DATE: August 26, 2019

ITEM NUMBER: #3.

MEETING/AGENDA: WORK SESSION

ACTION XX

NONE

REASON FOR CONSIDERATION: Operational: XX Information: Discussion: Policy:

INITIATED BY: Lawrence J. Gregan
Township Manager 

BOARD LIAISON: Michael J. Fox,
Chairman of the Board of Supervisors

BACKGROUND:

The Chairman needs to remind all individual(s) making a comment that they need to identify themselves by name and address for public record.

The Chairman needs to remind the public about the policy of recording devices. The individual(s) needs to request permission to record the meeting from the Chairman and needs to identify themselves, by name and address for public record.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

None.

ALTERNATIVES/OPTIONS:

None.

BUDGET IMPACT:

None.

RECOMMENDATION:

None.

MOTION/RESOLUTION:

None.

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Announcement of Executive Session

MEETING DATE: August 26, 2019

ITEM NUMBER: #4.

MEETING/AGENDA: WORK SESSION

ACTION XX

NONE

REASON FOR CONSIDERATION: Operational: XX Information: Discussion: Policy:

INITIATED BY: Lawrence J. Gregan
Township Manager



BOARD LIAISON: Michael J. Fox,
Chairman of the Board of Supervisors

BACKGROUND:

Frank Bartle will announce that the Board of Supervisors met in Executive Session and will summarize the matters discussed.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

None.

ALTERNATIVES/OPTIONS:

None.

BUDGET IMPACT:

None.

RECOMMENDATION:

None.

MOTION/RESOLUTION:

None.

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Consider Approval of Minutes for August 12, 2019

MEETING DATE: August 26, 2019

ITEM NUMBER: #5.

MEETING/AGENDA: WORK SESSION

ACTION XX

NONE

REASON FOR CONSIDERATION: Operational: XX Information: Discussion: Policy:

INITIATED BY: Lawrence J. Gregan
Township Manager

BOARD LIAISON: Michael J. Fox,
Chairman of the Board of Supervisors

BACKGROUND:

Please contact Deb Rivas on Monday, August 26, 2019 before noon with any changes to the minutes.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

None.

ALTERNATIVES/OPTIONS:

None.

BUDGET IMPACT:

None.

RECOMMENDATION:

None.

MOTION/RESOLUTION:

None.

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

DRAFT

**MINUTES OF MEETING
MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
AUGUST 12, 2019**

At 6:00p.m. Chairman Michael J. Fox called to order the Executive Session. In attendance were Vice-Chairman Candyce Fluehr Chimera, and Supervisors Tanya C. Bamford, Jeffrey W. McDonnell and Matthew W. Quigg. Also in attendance was Township Manager Lawrence J. Gregan, Township Solicitor Frank Bartle, Esquire, Director of Administration and HR Ann M. Shade, Director of Finance Ami Tarburton and Carolyn McCreary.

Chairman Michael J. Fox called the action meeting to order at 7:02 p.m. In attendance were Vice-Chairman Candyce Fluehr Chimera and Supervisors Tanya C. Bamford, Jeffrey W. McDonnell and Matthew W. Quigg. Also in attendance were Township Solicitor Frank Bartle, Esquire, Township Manager Lawrence Gregan, Police Chief Scott Bendig, Director of Fire Services Richard Lesniak, Director of Finance Ami Tarburton, Director of Administration & HR Ann M. Shade, Assistant to the Township Manager Stacy Crandell, Director of Planning and Zoning Bruce Shoupe, Director of Public Works Kevin Costello, Director of Recreation and Community Center Floyd Shaffer, Recording Secretary Deborah A. Rivas, Director of Information Technology Richard Grier and Public Information Coordinator Kelsey Whalen.

Following the Pledge of Allegiance, Chairman Michael J. Fox called for public comment from the audience.

Annette Long of 101 Glasgow Circle thanked the Police Chief and Police Department for hosting National Night Out. Ms. Long stated that it was an excellent community event. The event was well organized and everyone felt safe there.

Solicitor Frank Bartle, Esquire announced that the Board had met in an executive session prior to this meeting at 6:00 p.m., and discussed several matters. The Board discussed a labor matter involving the fire union negotiations. The Board also discussed three personnel matters as well as a potential matter of litigation that is the ongoing Cutler matter. Mr. Bartle

stated that these matters are legitimate subjects of executive session pursuant to Pennsylvania's Sunshine Law.

Chairman Michael J. Fox made a motion to approve the minutes of the July 22, 2019 Board of Supervisors meeting, and Supervisor Tanya Bamford seconded the motion. The minutes of the meeting were unanimously approved as submitted.

Chairman Michael J. Fox reported that following a rigorous four-month recruitment and evaluation process, the Board of Supervisors will consider the appointment of the Township Manager Designee to take over the Township Manager position upon the retirement of current Manager Lawrence J. Gregan at the end of this year. Chairman Fox introduced Carolyn McCreary as the proposed Township Manager Designee. Mrs. McCreary introduced herself and stated that she has been Plumstead Township's Manager for the past 11 years, and a prior to that she was the Finance Director in Lansdale Borough for nine years. Mrs. McCreary reported that she received her undergraduate degree from Gwynedd Mercy College in accounting and received her Masters of Public Administration at Villanova University. Chairman Fox asked for a roll call vote from the Board. Supervisors Matthew W. Quigg, Tanya C. Bamford, Candyce Fluehr Chimera, Jeffrey W. McDonnell and Chairman Michael J. Fox individually responded with "aye" as their vote for the appointment of Carolyn McCreary as the Township Manager Designee. Resolution #1 made by Chairman Michael J. Fox, seconded by Vice Chairman Candyce Fluehr Chimera and adopted unanimously by roll call vote, appointed Carolyn McCreary to the position of Township Manager Designee for Montgomery Township effective September 16, 2019.

Director of Finance Ami Tarburton reported that Montgomery Township wishes to acknowledge the services of Vickie Zidek who has tendered her resignation as an Accountant effective Monday, August 19, 2019. Vickie was hired as a Staff Accountant on February 5, 2007 and has been an integral part of the Finance Department for the past twelve years. Vickie has taken a Controller position with a local warehousing company. Resolution #2 made by Chairman Michael J. Fox, seconded by Vice Chairman Candyce Fluehr Chimera and adopted

unanimously, accepted the resignation of Vickie Zidek from her position as Accountant with Montgomery Township and take this opportunity to thank her for her service during her employment at Montgomery Township.

Assistant to the Township Manager Stacy Crandell announced an annual donation of \$1,500 was being made to the North Wales Library. Ms. Crandell introduced Jayne Blackledge who accepted the donation. Ms. Blackledge updated the Board and residents on the current programs offered at the North Wales Library and expressed her gratitude for the Board's generous donation.

Assistant to the Township Manager Stacy Crandell announced an annual donation of \$1,500 was being made to the Visiting Nurse Community Services. Ms. Crandell introduced Richard Cirko who accepted the donation. Mr. Cirko expressed his gratitude for the Board's generous donation and gave examples of how this donation would be used to help provide many services to citizens in the Township and surrounding areas.

Township Manager Lawrence J. Gregan reported that in 2015 the Board of Supervisors was approached by members of the Korean Community led by Master Bon Pil Yang, regarding planning a location for a Korean War Memorial to honor and recognize the cooperation and sacrifices of the American and Korean Armed Forces during the war. The Board agreed that an appropriate location for the memorial would be the Township's Memorial Grove Park which is located on Kenas Road. Over the past several years, the Korean War Memorial Peace Park Committee has been hard at work securing funding for the memorial, and have secured private donations, grant funding and funding from the Korean Government towards constructing a memorial. Permission for construction of the memorial will be subject to the execution of a license and security agreement to govern the terms and use of the portion of the park, as well as installing and maintaining a memorial and cultural exchange monument there. Kate Harper, Esquire, a member of the committee, thanked the Board and reported that the committee has been meeting at the Township for years trying to get the money and plans together. The license agreement will show that we all agree to build and maintain the memorial. Resolution #3 made

by Chairman Michael J. Fox, seconded by Supervisor Tanya C. Bamford and adopted unanimously, authorized the execution of the License and Security Agreement with the Korean War Memorial American-Korean Alliance Peace Park Inc. for the purposes of installing and maintaining a memorial and cultural exchange monument at Memorial Grove Park.

Township Manager Lawrence J. Gregan and Township Engineer James Dougherty provided an update on the status of the MS4 Stormwater Program, including: a background on the MS4 PAG13 permit program; general permit requirements; sediment TMDL requirements; Township pollutant reduction strategy; new individual permit requirement in 2013; requirement for pollution reduction plans (PRP's); minimum reduction requirements; Wissahickon Total Phosphorus TMDL; Wissahickon Partnership; projected costs and developing a financial strategy. In addition, he advised that there is a need for additional professional engineering services in order to respond to DEP's August 2018 Permit TMDL Review Comment as outlined in the Township Engineer's proposal dated May 29, 2019. Resolution #4 made by Chairman Michael J. Fox, seconded by Supervisor Matthew W. Quigg and adopted unanimously, accepted the proposal from Gilmore and Associates, Inc., dated May 29, 2019 for Professional Services to prepare the Township's response to the Pennsylvania Department of Environmental Protection Pollutant Reduction Plan and TMDL Plan Review Comments Letter at a cost not to exceed \$44,000.

Assistant to the Township Manager Stacy Crandell reported that Montgomery County has established a new grant program called the County Transportation Program which uses the revenues from the \$5 county vehicle registration fee to expand the reach of the transportation investment. There is approximately \$1 million in funding available this year. Township staff is recommending that we apply for grant funding for improvements to the intersection of North Wales Road and Harbob Lane. This portion of North Wales Road is maintained by Montgomery County. This project will implement the pedestrian signal and crossing improvements, and update the emergency vehicle preemption system to enhance emergency response time and safety. The project would also upgrade the control assembly to provide improved compatibility

and connectivity with the adjacent signalized corridor of Route 309 that runs through the Township. The total project cost will be \$155,000; the breakdown includes the design, inspection and construction. The Township is requesting \$124,000 for the grant and will provide a local match in the amount of \$31,000. Resolution #5 made by Chairman Michael J. Fox, seconded by Vice Chairman Candyce Fluehr Chimera and adopted unanimously, authorized the submission of the grant to the County Transportation Program for the North Wales Road and Harbob Lane intersection improvements.

Director of Recreation and Community Center Floyd Shaffer reported on the successful completion of the 2019 Kids University Program, summarizing the various programs and activities offered with this eight week summer camp program. He also reviewed the schedule of the proposed 2019 Fall Recreation Programs and Fees that will be valid from mid-September through November 2019. Resolution #6 made by Chairman Michael J. Fox, seconded by Supervisor Tanya C. Bamford and adopted unanimously, approved the 2019 Fall Programs and Fee Schedule as submitted.

Resolution #7 made by Chairman Michael J. Fox, seconded by Vice Chairman Candyce Fluehr Chimera and adopted unanimously, authorized the advertisement for bids for the Ash Tree Forestry Management Program Phase VII.

Resolution #8 made by Chairman Michael J. Fox, seconded by Supervisor Tanya C. Bamford and adopted unanimously, authorized the advertisement for bids for the Ash Tree Forestry Management Program Phase VIII.

A motion to approve the payment of bills was made by Chairman Michael J. Fox, seconded by Supervisor Tanya C. Bamford, and adopted unanimously, approving the payment of bills as submitted.

There being no further business to come before the Board, the meeting adjourned at 8:15 p.m.

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Recognize Employee Resignation – Public Works Department

MEETING DATE: August 26, 2019

ITEM NUMBER: #6a.

MEETING/AGENDA: WORK SESSION

ACTION XX

NONE

REASON FOR CONSIDERATION: Operational: XX Policy: Discussion: Information:

INITIATED BY: Lawrence J. Gregan
Township Manager

BOARD LIAISON: Michael J. Fox, Chairman
Chairman, Board of Supervisors

BACKGROUND:

Montgomery Township wishes to acknowledge the services of Evan Stephens who has tendered his resignation as a Laborer effective Thursday, August 22, 2019. Evan was hired on October 23, 2017 and has been an integral part of the Park Crew in the Public Works Department for the past two years.

Evan will be following a different career path, returning to college in pursuit of a position in the medical field. We will him well in future endeavors.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

None.

ALTERNATIVES/OPTIONS:

None.

BUDGET IMPACT:

None.

RECOMMENDATION:

Acknowledge resignation of Evan Stephens from his position with Montgomery Township and thank him for his service to the residents of Montgomery Township.

MOTION/RESOLUTION:

BE IT RESOLVED by the Board of Supervisors of Montgomery Township that we hereby accept the resignation of Evan Stephens from his position as Laborer Montgomery Township and take this opportunity to thank him for his service during his employment at Montgomery Township.

MOTION: _____

SECOND: _____

ROLL CALL:

Tanya C. Bamford	Aye	Opposed	Abstain	Absent
Candyce Fluehr Chimera	Aye	Opposed	Abstain	Absent
Jeffrey W. McDonnell	Aye	Opposed	Abstain	Absent
Matthew W. Quigg	Aye	Opposed	Abstain	Absent
Michael J. Fox	Aye	Opposed	Abstain	Absent

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

**MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY**

SUBJECT: Recognize Employee Resignation – Finance Department

MEETING DATE: August 26, 2019

ITEM NUMBER: #6b.

MEETING/AGENDA: WORK SESSION

ACTION XX

NONE

REASON FOR CONSIDERATION: Operational: XX Policy: Discussion: Information:

INITIATED BY: Lawrence J. Gregan
Township Manager

BOARD LIAISON: Michael J. Fox, Chairman
Chairman, Board of Supervisors

BACKGROUND:

Montgomery Township wishes to acknowledge the services of Ami Tarburton who has tendered her resignation as a Township Finance Director/Treasurer effective Friday, August 30, 2019.

Ami was appointed to her position on March 7, 2016 and has been an integral part of the Management Team of the Township for the past three and a half years. During her tenure as Finance Director, Ami has been responsible for preparing the annual budgets, annual audits and all financial reporting for the Township to various governmental and non-governmental agencies in addition to managing the day to day operations of the Finance Department.

Of particular note was Ami's work on the successful refinancing in 2016 of the Township's \$8.5M General Obligation Bonds at a lower interest rate with the same retirement date resulting in an interest savings in the amount of \$1.0M while maintaining the Township's coveted AAA S & P Bond Rating.

In addition, Ami has been recognized by the Government Finance Officers Association (GFOA) with Certificates of Achievement for Excellence in Financial Reporting for preparation of the Comprehensive Annual Financial Reports (CAFR's) prepared for Audit years 2015, 2016, 2017 and maybe 2018.

Ami will be pursuing her career as Finance Officer at the North Penn Water Authority.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT: None.

PREVIOUS BOARD ACTION: None.

ALTERNATIVES/OPTIONS: None.

BUDGET IMPACT: None.

RECOMMENDATION: Acknowledge resignation of Ami Tarburton from her position with Montgomery Township and thank her for her service to the residents of Montgomery Township.

MOTION/RESOLUTION:

BE IT RESOLVED by the Board of Supervisors of Montgomery Township that we hereby accept the resignation of Ami Tarburton from her position as Finance Director/Treasurer and take this opportunity to thank her for her service during her employment at Montgomery Township.

MOTION: _____ SECOND: _____

ROLL CALL:

Tanya C. Bamford	Aye	Opposed	Abstain	Absent
Candyce Fluehr Chimera	Aye	Opposed	Abstain	Absent
Jeffrey W. McDonnell	Aye	Opposed	Abstain	Absent
Matthew W. Quigg	Aye	Opposed	Abstain	Absent
Michael J. Fox	Aye	Opposed	Abstain	Absent

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

Ami Tarburton

August 13, 2019

Larry Gregan, Manager
Montgomery Township
1001 Stump Road
Montgomeryville, PA 18936

Dear Larry,

Please accept this letter as formal notification that I am resigning from my position as Finance Director with Montgomery Township. My last day will be Friday, August 30, 2019.

Thank you so much for the opportunity to work and learn in this great municipal environment for the past 3+ years. During the next three weeks, I will do everything possible to wrap up my workload and train other team members. Please let me know if there's anything else I can do to aid during the transition.

I wish you a happy, healthy, well-deserved retirement. I wish the board and all the staff continued success. And I hope to stay in touch in the future.

Sincerely,



Ami Tarburton

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Donation Presentation- Montgomery County Norristown Public Library

MEETING DATE: August 26, 2019

ITEM NUMBER: #7a.

MEETING/AGENDA:

ACTION

NONE

REASON FOR CONSIDERATION: Operational: Policy: Discussion: Information:

INITIATED BY: Stacy Crandell  BOARD LIAISON: Michael J. Fox, Chairman
Assistant to the Township Manager

BACKGROUND:

This evening the Board will be presenting a check in the amount of \$10,000 to the Montgomery County Norristown Public Library. Kathy Arnold-Yerger will be present at the meeting to accept the check on behalf of the Montgomery County Norristown Public Library.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

None.

ALTERNATIVES/OPTIONS:

None.

BUDGET IMPACT:

None.

RECOMMENDATION:

None.

MOTION/RESOLUTION:

None.

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Donation Presentation- Montgomery Township Historical Society

MEETING DATE: August 26, 2019 ITEM NUMBER: #76.

MEETING/AGENDA: ACTION NONE

REASON FOR CONSIDERATION: Operational: xx Policy: Discussion: Information:

INITIATED BY: Stacy Crandell  BOARD LIAISON: Michael J. Fox, Chairman
Assistant to the Township Manager

BACKGROUND:

This evening the Board will be presenting a check in the amount of \$6,000 to the Montgomery Township Historical Society. Lisa Knapp Siegel will be present at the meeting to accept the check on behalf of the Montgomery Township Historical Society.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

None.

ALTERNATIVES/OPTIONS:

None.

BUDGET IMPACT:

None.

RECOMMENDATION:

None.

MOTION/RESOLUTION:

None.

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Consider Authorization to Contract with Keystone Lighting Solutions for Phase 3- Project Management (Construction) and Phase 4- Post Construction Operations and Maintenance Services- DVRPC Regional Streetlight Procurement Program

MEETING DATE: August 26, 2019 ITEM NUMBER: #8.

MEETING/AGENDA: ACTION NONE

REASON FOR CONSIDERATION: Operational: Policy: Discussion: xx Information:

INITIATED BY: Stacy Crandell  Assistant to the Township Manager BOARD LIAISON: Michael J. Fox Chairman, Board of Supervisors

BACKGROUND:

The Delaware Valley Regional Planning Commission (DVRPC) has assembled a multiphase Regional Streetlight Procurement Program (RSLPP) in order to assist municipalities to design, procure, and finance the transition of their street lighting systems to LED Technology.

The first phase of this program was a Feasibility Study prepared by Keystone Lighting Solutions (KLS), which identified potential for savings from participating in the Street LED Light Upgrade.

The second phase of the process was the Project Development, which involved preparation of a detailed investment grade audit and design and analysis of potential lighting solutions for a review with the Board of Supervisors. A copy of the report is attached with cost estimates. Tonight, Michael Fuller from Keystone Lighting will present the findings of the audit and options for upgrading the street lighting in the Township.

The Board of Supervisors will then need to decide whether or not to continue to participate with Phase 3- Project Management (Construction) and Phase 4- Post Construction Operations and Maintenance Services of this project. DVRPC has completed the bidding process for these services and Armour and Sons Electric, Inc. was chosen to be the installer for this work.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

On August 27, 2018, the Board of Supervisors gave approval to participate in Phase 1 of the DVRPC RSLPP authorizing Keystone Lighting Solutions to perform Feasibility Study free of charge.

On March 11, 2019, the Board of Supervisors gave approval to participate in Phase 2 of the DVRPC RSLPP authorizing Keystone Lighting Solutions to perform the Investment Grade Audit and Design.

ALTERNATIVES/OPTIONS:

Should the Board decide to move forward on this project there several options for consideration:

- **Option#1- Replacement of Cobrahead Lights- with Financing**
- **Option#2- Replacement of Cobrahead Lights- without Financing**
- **Option #3- Replacement of Cobrahead and Decorative Lights- with Financing**
- **Option#4- Replacement of Cobrahead and Decorative Lights- without Financing**

The approximate costs and payback periods for each option are shown on the attached Payback Analysis Matrix.

BUDGET IMPACT:
TBD.

RECOMMENDATION:
Staff is recommending a direction from the Board.

MOTION/RESOLUTION:
See attached resolution.

MOTION: _____ SECOND: _____

ROLL CALL:

Tanya C. Bamford	Aye	Opposed	Abstain	Absent
Candyce Fluehr Chimera	Aye	Opposed	Abstain	Absent
Jeffrey W. McDonnell	Aye	Opposed	Abstain	Absent
Matthew W. Quigg	Aye	Opposed	Abstain	Absent
Michael J. Fox	Aye	Opposed	Abstain	Absent

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

Payback Analysis Matrix

The payback analysis matrix is provided as a decision-making tool to assess the opportunity of ECMs available and to define a project scope that best meets the needs of the municipality. If a PECO buyback is planned prior to this project being implemented, we show the payback associated with that activity. If the Phase 2 field audit identified differences between the unmetered PECO inventory and what is verified to be existing, those adjustments are reflected below as “PECO Inventory Adjust.” The PECO Inventory Adjust amount will occur for all cobrahead or decorative ECMs, and therefore this amount is included in these ECMs values shown in the table below. A separate payback calculation is made for each ECM as well as for common control alternates to be considered. The full-implementation total includes the total payback calculations if all ECMs are completed.

PECO Baseline Adjustments	Energy Savings/Year	Maintenance Savings/Year	Total Operating Savings/Year	Material Costs	Install Costs	KLS Fees	DVRPC Program Costs	Cost Contingency	Interest Costs	Rebates	Total Project Costs	Payback (Years)	Payback w/o Financing (Years)
Streetlight Adjustment	(\$3,614)	\$0	(\$3,614)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0	0.0
Traffic Signal Adjustment	\$784	\$0	\$784	\$0	\$0	\$0	\$0	\$0	\$0	(\$123)	(\$123)	(0.2)	(0.2)

Typical ECM Combinations	Energy Savings/Year	Maintenance Savings/Year	Total Operating Savings/Year	Material Costs	Install Costs	KLS Fees	DVRPC Program Costs	Cost Contingency	Interest Costs	Rebates	Total Project Costs	Payback (Years)	Payback w/o Financing (Years)
Cobrahead Only ¹	\$877	\$1,371	\$2,248	\$24,565	\$11,305	\$6,664	\$1,409	\$1,793	\$10,638	(\$10,058)	\$46,317	20.6	15.9
Decorative Only ¹	\$18,055	\$6,605	\$24,659	\$436,414	\$104,210	\$42,330	\$18,335	\$27,031	\$146,146	(\$62,118)	\$712,347	28.9	23.0
Traffic Signal Only ¹	\$1,774	\$8,915	\$10,690	\$46,540	\$15,130	\$18,837	\$2,792	\$3,083	\$20,092	(\$659)	\$105,816	9.9	8.0
Cobrahead + Decorative ¹	\$22,546	\$7,976	\$30,521	\$460,978	\$115,515	\$48,994	\$19,745	\$28,825	\$156,784	(\$72,176)	\$758,665	24.9	19.7
Cobrahead + Decorative + Traffic Signals ¹	\$24,320	\$16,891	\$41,211	\$507,518	\$130,645	\$67,831	\$22,536	\$31,908	\$176,876	(\$72,835)	\$864,481	21.0	16.7
Cobrahead + Decorative ¹ + Manual Controls	\$22,546	\$7,976	\$30,521	\$484,671	\$115,515	\$48,994	\$19,745	\$30,009	\$187,447	(\$72,176)	\$814,205	26.7	20.5
Cobrahead + Decorative ¹ + Network Controls	\$25,123	\$7,976	\$33,099	\$633,230	\$129,294	\$48,994	\$19,745	\$37,437	\$396,701	(\$72,176)	\$1,193,225	36.1	24.1

Notes:

- 1) Includes costs and savings of ECM upgrade + PECO baseline adjustments

RESOLUTION
OF THE BOARD OF SUPERVISORS OF THE
TOWNSHIP OF MONTGOMERY,
MONTGOMERY COUNTY, PENNSYLVANIA

Authorizing cooperative purchasing and participation
in Phases 3 and 4 of the Regional Streetlight
Procurement Program administered by the
Delaware Valley Regional Planning Commission

WHEREAS, the Township of Montgomery is located in Montgomery County, Pennsylvania (the “Township”); and

WHEREAS, the Township qualifies as a “local public procurement unit” as defined under Chapter 19 of the Commonwealth Procurement Code, 62 Pa C.S. §1901 et seq. (the “Code”); and

WHEREAS, the Delaware Valley Regional Planning Commission (“DVRPC”) qualifies as a “public procurement unit” under the Code, and has established a Regional Streetlight Procurement Program (the “Program”) for the purpose or entering into “cooperative purchasing” agreements with regional municipalities; and

WHEREAS, the Township, in its capacity as a local public procurement unit, agreed to participate in the Program, as reflected by the adoption of a letter of intent in connection with the Program’s Phase 1, and by the adoption of a resolution authorizing the participation in the Program’s Phase 2; and

WHEREAS, full participation in the Program’s additional Phase 3 (Project Management) and Phase 4 (Post Construction Operations and Maintenance Services) will allow the Township to implement the project (the “Project”) and improve the performance of municipal street lighting; and

WHEREAS, DVRPC entered into a contract with Keystone Lighting Solutions (“KLS”) to provide design services as part of Phase 2 of the Program and at the option of participating municipalities to extend services provided in Phases 3 and 4; and

WHEREAS, pursuant to its authority under the Code, Township entered into contract with KLS for Project Development Phase 2 for professional design services to evaluate, recommend, audit, design and manage the Project with the option to proceed with Phases 3 and 4; and

WHEREAS, KLS has completed the services required in connection with Project Development Phase 2; and

WHEREAS, as part of Project Development Phase 2, KLS presented a Final Project Specification and Proposal (the "Proposal"), and in this Proposal KLS estimated the costs to the Township associated with KLS' services for Phases 3 and 4; and

WHEREAS, also in the Proposal KLS provided a "Total Project Cost" found in the Project Cashflow, which establishes the total price to the Township associated with this Project; and

WHEREAS, the Township wishes to exercise its option to proceed with Phases 3 and 4 under its existing contract with KLS and to secure its professional assistance in connection with the procurement and installation of these improvements; and

WHEREAS, DVRPC has entered into a contract with Armour & Sons Electric, Inc. ("Armour") to provide construction installation services and assigned to Armour DVRPC's contracts for manufacture and distribution of equipment; and

WHEREAS, participating municipalities, including the Township, are able to "piggyback off of" the contract entered into by DVRPC for installation, in accordance with the Code; and

WHEREAS, continued participation in the Program will allow the Township to implement its project (the "Project") and improve the performance of municipal street lighting, and specifically to manage and administer the procurement, installation, and financing of the transition to light-emitting-diode (LED) street lighting and other street light improvements, and the maintenance of those improvements; and

WHEREAS, the Township has determined that its interests warrant piggybacking off of DVRPC's contract with Armour, thereby forming a separate and new contract between the Township and Armour in the form attached hereto as Exhibit A.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the Township of Montgomery Township hereby authorizes Township to exercise its option under the existing cooperative purchasing contract with KLS and to proceed to Phase 3 and Phase 4 of the Program for Project Management and Post Construction Operation and Maintenance Services; and it is

FURTHER RESOLVED that the Board of Supervisors of the Township of Montgomery hereby authorizes the Township to enter into cooperative purchasing in the form of a contract with Armour & Sons Electric, Inc. for installation of equipment; and it is

FURTHER RESOLVED that the Board of Supervisors of the Township of Montgomery hereby authorizes and directs its officials, employees, agents and representatives to take all such further actions and to execute and deliver all such instruments and other documents as may be necessary or appropriate to enable the Township to carry out the intent and purposes of the foregoing resolutions and the transactions contemplated hereby.

IN WITNESS WHEREOF, the Board of Supervisors of the Township of Montgomery has adopted and enacted this Resolution this 26th day of August, 2019.

[Signatures on following pages]

MOTION BY:

SECOND BY:

VOTE:

DATE: August 26, 2019

cc: Minute Book, Resolution File

TOWNSHIP OF MONTGOMERY

Attest: _____
Lawrence J. Gregan, Secretary

By: _____
*Candyce Fluehr Chimera, Vice-Chairman
Montgomery Township Board of
Supervisors*

EXHIBIT A
[Contract]

Roadway, Street & Area Lighting Upgrade Project Specifications & Proposal

Montgomery Township
8/22/2019

Prepared by:



Keystone Lighting Solutions
Michael Fuller, President

In Partnership with:

**Delaware Valley Regional Planning Commission's
Regional Streetlight Procurement Program**

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Executive Summary

RSLPP Overview

The Delaware Valley Regional Planning Commission's Regional Streetlight Procurement Program (RSLPP) allows regional municipalities to improve the performance of municipal street lighting, and specifically to design, procure, install, and finance the transition to light-emitting-diode (LED) lighting technology, and to maintain those improvements. The RSLPP is organized in four Phases: Phase 1: Feasibility; Phase 2: Project Development; Phase 3: Construction; and Phase 4: Post-Construction Operations and Maintenance.

Phase 2 Project Development Overview & Approach

Keystone Lighting Solutions (KLS) was competitively selected by the RSLPP to serve as the Design Services Professional for all four Phases of the program.

In Phase 1, KLS was contracted with DVRPC to provide a no-cost Feasibility Study for all participating municipalities. Municipalities proceeded to Phase 2 of the RSLPP by contracting with KLS to provide Project Development services, including a field audit of lighting equipment, analysis of gathered lighting data and attributes, a preliminary design (reviewed by the municipality), and a final design catered to municipal needs. Further, KLS is contracted with DVRPC to, on behalf of all municipalities in the RSLPP, develop and evaluate solicitations for the required vendors (distribution partner, manufacturer, and installation contractor) for this work. Project Development results in the following key deliverables, developed by KLS:

1. All raw data gathered during field auditing, delivered via web map and Excel. Data will have been scrubbed based on municipal feedback for data quality control (e.g. identification of correct boundary fixtures, etc.)
2. Final Project Specifications & Proposal guided by a design process that includes the following two steps. A detailed description of Project Design can be found in the Design Approach and Standardized Upgrade Plan section of this document.
 - a. A preliminary design based on roadway classification, key attributes from the field audit process (e.g. pole spacing, lamp type/wattage, location of intersections, etc.) identification of "special need" areas (e.g. high-crash locations), verified by photometric analysis, then
 - b. A final design, that replaced preliminary design, based on municipal feedback to preliminary design.
3. A Project Installation Worksheet, detailing a line by line installation schedule - provided at a later date with the final construction contract.
4. A Summary Bill of Material that lists unique products, their quantity, and extended total price – provided as Appendix D of this document.
5. A Schedule of Installation Values that lists unique Installation Items (e.g. cobrahead installation), Quantity, Unit Price & Extended Total Price - provided as Appendix C of this document.

6. A summary of DSP and DVRPC Program Fees – provided as Appendix E of this document.

How Contracting will work:

This Final Project Specification & Proposal has been developed by KLS to serve as the basis of your Construction Contract with the Installation Contractor. DVRPC's contracts with each of the RSLPP selected vendors (Distributor, Manufacturer, and Installer) have been assigned to the Installation Contractor who will hold the construction contract with each municipality. Municipality's "piggy-back" off of DVRPC's Construction Contract using Chapter 19 of the Commonwealth Procurement Code, 62 Pa.C.S. § 1901 et seq. Items 2-5 listed above will form the unique aspects of each municipalities Construction Contract with the selected RSLPP Installation Contractor, and will guide your construction project. Municipalities that enter into a Construction Contract with the Installation Contractor will have their Construction Contract managed by KLS as part of Phase 3 (Construction) services.

Project Goals and Special Applications

The following list of project goals and special applications was developed during discussions between municipality staff/management and KLS as part of your feasibility study. These goals and special applications were applied to the Final Design presented in this report

- **Project Goals**
 - Reduce Energy Costs
 - Reduce Maintenance Costs
 - Meet or Exceed Existing Lighting System Performance

- **Special Applications**
 - After Phase 3 Construction, consider need for increased illumination at the North Wales Road and Horsham Road (Rt. 463) intersection. If needed, use contingency funds to add fixture(s).

Project Scope of Work

The following is a list of all possible energy conservation measures (ECMs) presented for the lighting upgrade project. The “In Scope” column indicates which ECMs the municipality has chosen to include in the scope of work for the Final Project Specifications and Proposal:

Upgrade Category	In Scope
PECO Buyback	No
Cobrahead Lighting	Yes
Decorative Lighting	Yes
Area Lighting	No
Traffic Signals	No
Control Alternates*	In Scope
Manual Fixture Controls	Option
Networked Control System	Option

** Basic photocell or timeclock control is included for all upgrade categories*

Executive Financial Summary

Below is an Executive Financial Summary. This summary table provides Total Annual Operating Cost Savings (includes energy and maintenance cost savings), Total Project Costs, and Payback for each Energy Conservation Measure (ECM).

PECO Baseline Adjustments	Total Operating Savings	Total Project Costs	Payback (Years)	Payback w/o Financing (Years)	GHG Reduction (MT/Year)
Streetlight Adjustment	(\$3,614)	\$0	0.0	0.0	(25)
Traffic Signal Adjustment	\$784	(\$123)	(0.2)	(0.2)	6

Typical ECM Combinations	Total Operating Savings	Total Project Costs	Payback (Years)	Payback w/o Financing (Years)	GHG Reduction (MT/Year)
Cobrahead Only ¹	\$2,248	\$46,317	20.6	15.9	6
Decorative Only ¹	\$24,659	\$712,347	28.9	23.0	125
Traffic Signal Only ¹	\$10,690	\$105,816	9.9	8.0	12
Cobrahead + Decorative ¹	\$30,521	\$758,665	24.9	19.7	156
Cobrahead + Decorative + Traffic Signals ¹	\$41,211	\$864,481	21.0	16.7	168
Cobrahead + Decorative ¹ + Manual Controls	\$30,521	\$814,205	26.7	20.5	156
Cobrahead + Decorative ¹ + Network Controls	\$33,099	\$1,193,225	36.1	24.1	156

Notes:

- 1) Includes costs and savings of ECM upgrade + PECO baseline adjustments

Existing Lighting System

Unmetered Streetlight Energy and Cost Baseline

The table below represents the current Energy and Cost baseline for Unmetered Streetlights in your municipality, developed using the inventory of equipment that is represented on your unmetered PECO streetlight bill. Any energy cost savings realized from upgrades to the unmetered fixtures installed in your community will be realized through changes to this PECO bill(s). Because the quantities, types, and wattages of fixtures reflected on the PECO bill(s) vary from what is actually installed in the municipality, the table on the following page (Verified Existing Street Lighting System) is used as the basis of the Scope of Work for this project.

PECO Unmetered Streetlight Baseline (Consolidated Summary of all PECO Streetlight Bills)								
Fixture Type Code	Fixture Type Description	Location Count	Fixture Quantity	Fixture Watts	Total kW	Annual Operating Hours	Total kWh/Year	Total Annual Electric Costs
Cobrahead								
0110KH	Sportlight, 1000W MH		12	1,090	13.1	4,092	53,523	\$2,802
04000M	Streetlight, 100W MV		36	115	4.1	4,092	16,941	\$887
05800S	Streetlight, 70W HPS		55	94	5.2	4,092	21,156	\$1,108
08000M	Streetlight, 175W MV		42	191	8.0	4,092	32,826	\$1,719
09500S	Streetlight, 100W HPS		1,075	131	140.8	4,092	576,256	\$30,172
12000M	Streetlight, 250W MV		7	275	1.9	4,092	7,877	\$412
16000S	Streetlight, 150W HPS		40	192	7.7	4,092	31,427	\$1,645
20000M	Streetlight, 400W MV		11	429	4.7	4,092	19,310	\$1,011
25000S	Streetlight, 250W HPS		3	294	0.9	4,092	3,609	\$189
50000S	Streetlight, 400W HPS		7	450	3.2	4,092	12,890	\$675
59000M	Streetlight, 1000W MV		48	1,090	52.3	4,092	214,093	\$11,210
Cobrahead Totals			1,336		241.9		989,908	\$51,830
Energy Usage Sub-Total			1,336		241.9		989,908	\$51,830
Locations	Service Locations	530		0	0.0	0	0	\$42,485
Total Electric Bill Costs		530						\$94,315

*Service Location Distribution Charge (SLDC), also known as the "Tap Fee" is based on \$6.68 per location, per month. This is a fixed charge on your bill, and it is not impacted by the wattage of the fixture at each location. The costs associated with SLDC are expected to stay the same unless the quantity of service locations changes as a result of your RSLPP project. Estimates for any expected changes in SLDC as a result of the project will be modeled in the following section.

Unmetered Streetlight Audit Verified Inventory and Adjustments

The table below represents the field-audited lighting inventory for all Unmetered Streetlights located in your municipality. This audit information has been analyzed by KLS and the municipality to ensure its accuracy. The inventory presented in the table below lists the quantities and types of fixtures eligible for conversion to LED, and serves as the basis for the scope of work for your project. Any differences from the existing PECO baseline and the field-audited lighting inventory is reflected in the adjustment table at the bottom of the page and will carry forward in the economic analysis in later sections.

Verified Existing Streetlight System (Based on field audit)								
Fixture Type Code	Fixture Type Description	Location Count	Fixture Quantity	Fixture Watts	Total kW	Annual Operating Hours	Total kWh/Year	Total Annual Electric Costs
Cobrahead								
CH-100W-HPS	Cobrahead, 100W HPS		4	131	0.5	4,092	2,144	\$112
CH-100W-MV	Cobrahead, 100W MV		6	115	0.7	4,092	2,823	\$148
CH-150W-HPS	Cobrahead, 150W HPS		33	192	6.3	4,092	25,927	\$1,357
CH-175W-MV	Cobrahead, 175W MV		7	191	1.3	4,092	5,471	\$286
CH-250W-HPS	Cobrahead, 250W HPS		74	294	21.8	4,092	89,026	\$4,661
CH-250W-MV	Cobrahead, 250W MV		1	275	0.3	4,092	1,125	\$59
CH-400W-HPS	Cobrahead, 400W HPS		7	450	3.2	4,092	12,890	\$675
CH-87W-LED	Cobrahead, 87W LED		38	87	3.3	4,092	13,528	\$708
CH-163W-LED	Cobrahead, 163W LED		10	163	1.6	4,092	6,670	\$349
CH-215W-LED	Cobrahead, 215W LED		10	215	2.2	4,092	8,798	\$461
CH-99W-HPS	Cobrahead, 99W HPS		6	131	0.8	4,092	3,216	\$168
0110KH	Sportlight, 1000W MH		12	1,090	13.1	4,092	53,523	\$2,802
59000M	Streetlight, 1000W MV		48	1,090	52.3	4,092	214,093	\$11,210
Cobrahead Totals			256		107.3		439,235	\$22,998
Decorative								
TOPAZ-20W-COB	Corn Cob, 20W, LED		105	20	2.1	4,092	8,593	\$450
4SC-100W-HPS	4-Sided Colonial, 100W HPS		1,140	131	149.3	4,092	611,099	\$31,996
Decorative Totals			1,245	151	151.4		619,692	\$32,446
Energy Usage Sub-Total			1,501		258.8		1,058,928	\$55,444
Locations	Service Locations	530						\$42,485
Total Electric Bill Costs		530						\$97,928

PECO Inventory Adjustment and Impact (PECO bill impact of differences between PECO baseline and audit of existing fixtures)							
Adjustment Type	Location Count	Fixture Quantity	Fixture Watts	Total kW	Annual Operating Hours	Total kWh/Year	Total Annual Electric Costs
PECO Baseline kWh		1,336		241.9	4,092	989,908	\$51,830
Audit Verified Existing kWh		1,501		258.8	4,092	1,058,928	\$55,444
kWh Adjustment Savings (+) and Costs (-)		(165)		(16.9)		(69,020)	(\$3,614)
PECO Baseline Locations	530						\$42,485
Audit Verified Existing Locations	530						\$42,485
Location Adjustment Savings (+) and Costs (-)	0						\$0
Total Adjustment Savings (+) and Costs (-)							(\$3,614)

Unmetered Traffic Signal Lamps and Signs Energy and Cost Baseline

The table below represents the current Energy and Cost baseline for Unmetered Traffic Signal Lamps and Signs in your municipality, developed using information from the municipality's unmetered PECO traffic signal bill(s). This project's energy and cost baseline for unmetered service will be tied to the inventory of equipment on your unmetered PECO traffic signal lamps and signs bill. Any energy cost savings realized from upgrades to the unmetered traffic signal lamps and signs installed in your community will be realized through changes to this PECO bill(s). Because the quantities, types, and wattages of traffic signal lamps and signs reflected on the PECO bill(s) vary from what is actually installed in the municipality, the table on the following page is used as the basis of the Scope of Work for this project.

PECO Unmetered Traffic Signal Baseline (Consolidated Summary of all PECO Traffic Signal Bills)								
Lamp, Sign or Control Type Code	Lamp, Sign or Control Description	Location Count	Lamp, Sign or Control Quantity	Lamp, Sign or Control Watts	Total kW	Annual Operating Hours	Total kWh/Year	Total Annual Electric Costs
00LOOP	Loops		192	5	1.0	8,640	8,294	\$427
OMINLT	Flashing Lights		4	0	0.0	0	0	\$0
EMPESD	Preemption Devices		35	2	0.1	8,640	605	\$31
G 000 TA - 12	12" Incandescent Traffic Arrow Green		2	150	0.3	691	207	\$11
G 000 TL - 12	12" Incandescent Green		13	150	2.0	3,715	7,245	\$373
G LED TA - 12	12" LED Traffic Arrow Green		93	13	1.2	691	836	\$43
G LED TL - 8	8" LED Green		361	14	5.1	3,715	18,777	\$967
HNDSGN	LED Hand/Man		106	8	0.8	8,640	7,327	\$377
NTMNTR	Traffic Monitoring Devices		33	5	0.2	8,640	1,426	\$73
R 000 TL - 12	12" Incandescent Red		13	150	2.0	4,752	9,266	\$477
R LED TL - 8	8" LED Red		418	6	2.5	4,752	11,918	\$614
TRCONT	Motor Controller		45	15	0.7	8,640	5,832	\$300
Y 000 TA - 12	12" Incandescent Traffic Arrow Yellow		2	150	0.3	691	207	\$11
Y 000 TL - 12	12" Incandescent Yellow		13	150	2.0	173	337	\$17
Y LED TA - 12	12" LED Traffic Arrow Yellow		90	10	0.9	691	622	\$32
Y LED TL - 8	8" LED Yellow		412	12	4.9	173	854	\$44
Energy Usage Sub-Total			1,832		23.8		73,753	\$3,797
Locations	Service Locations	43						\$1,894
Total Electric Bill Costs		43						\$5,691

*Service Location Distribution Charge (SLDC), also known as the "Tap Fee" is based on \$3.67 per intersection, per month. This is a fixed charge on your bill, and it is not impacted by the wattage of the fixtures at each intersection. The costs associated with SLDC are expected to stay the same unless the quantify of service locations changes as a result of your RSLPP project. Estimates for any expected changes in SLDC as a result of the project will be modeled in the following section.

Unmetered Traffic Signal Lamps and Signs Audit Verified Inventory and Adjustments

The table below represents the field-audited lighting inventory for all Unmetered Streetlights located in your municipality. This audit information has been analyzed by KLS and the municipality to ensure its accuracy. The inventory presented in the table below lists the quantities and types of fixtures eligible for conversion to LED, and serves as the basis for the scope of work for your project. Any differences from the existing PECO baseline and the field-audited lighting inventory is reflected in the adjustment table at the bottom of the page and will carry forward in the economic analysis in later sections.

Verified Existing Traffic Signal System <i>(Based on field audit)</i>								
Lamp, Sign or Control Type Code	Lamp, Sign or Control Description	Location Count	Lamp, Sign or Control Quantity	Lamp, Sign or Control Watts	Total kW	Annual Operating Hours	Total kWh/Year	Total Annual Electric Costs
OMINLT	Flashing Lights		4	0	0.0	0	0	\$0
EMPESD	Preemption Devices		35	2	0.1	8,640	605	\$31
G LED TA - 12	12" LED Traffic Arrow Green		123	13	1.6	691	1,105	\$57
G LED TL - 12	12" LED Green		406	12	4.9	3,715	18,100	\$932
G LED TL - 8	8" LED Green		12	14	0.2	3,715	624	\$32
HNDSGN	LED Hand/Man		181	8	1.4	8,640	12,511	\$644
NTMNTR	Traffic Monitoring Devices		33	5	0.2	8,640	1,426	\$73
R LED TL - 12	12" LED Red		415	11	4.6	4,752	21,693	\$1,117
R LED TL - 8	8" LED Red		12	6	0.1	4,752	342	\$18
Y LED TA - 12	12" LED Traffic Arrow Yellow		110	10	1.1	691	760	\$39
Y LED TL - 12	12" LED Yellow		412	18	7.4	173	1,281	\$66
Y LED TL - 8	8" LED Yellow		16	12	0.2	173	33	\$2
R LED TA - 12	12" LED Traffic Arrow Red		7	10	0.1	691	48	\$2
Energy Usage Sub-Total			1,766		22		58,529	\$3,014
Locations	Service Locations	43						\$1,894
Total Electric Bill Costs		43						\$4,907

PECO Inventory Adjustment and Impact <i>(PECO bill impact of differences between PECO baseline and audit of existing fixtures)</i>							
Adjustment Type	Location Count	Lamp, Sign or Control Quantity	Lamp, Sign or Control Watts	Total kW	Annual Operating Hours	Total kWh/Year	Total Annual Electric Costs
PECO Baseline kWh		1,832		23.8		73,753	\$3,797
Audit Verified Existing kWh		1,766		21.7		58,529	\$3,014
kWh Adjustment Savings (+) and Costs (-)		66		2.0		15,224	\$784
PECO Baseline Locations	43						\$1,894
Audit Verified Existing Locations	43						\$1,894
Location Adjustment Savings (+) and Costs (-)		0					\$0
Total Adjustment Savings (+) and Costs (-)							\$784

Design Approach and Standardized Upgrade Plan

Design Approach

The RSLPP is focused on delivering operating cost savings with low project costs while maintaining or improving lighting performance relative to the existing lighting system. The replacement fixtures used for this project were identified during the RSLPP procurement process, which evaluated and selected the best performing LED fixtures that could be applied to typical applications found in our region's roadways. The following typical applications were evaluated during the RSLPP procurement process to select high-performing manufacturer solutions: Cobrahead (Local, Major & Collector roadways) and 4-Sided Colonial (low and high volume Local Residential streets). For each typical application analysis KLS evaluates illumination (quantity of light) levels and uniformity ratios (how light spreads) against IES RP-8 standards. Actual municipality applications will likely not match typical applications (i.e. pole spacing, fixture mounting height) and therefore are likely not to meet IES RP-8 standards. However, evaluation solutions against IES RP-8 standards during the procurement process ensures that the best possible applications will be available for the RSLPP projects.

Lighting performance is not solely based on illumination levels and uniformity, but is also impacted by other factors including high angle glare, source-brightness, uplight/backlight, and color temperature. Many of these factors impact a human's perceived visibility of a lit environment. These factors were also evaluated in the RSLPP procurement process.

The final project design and specifications for LED lighting fixtures represented in this document were developed using the following general approach:

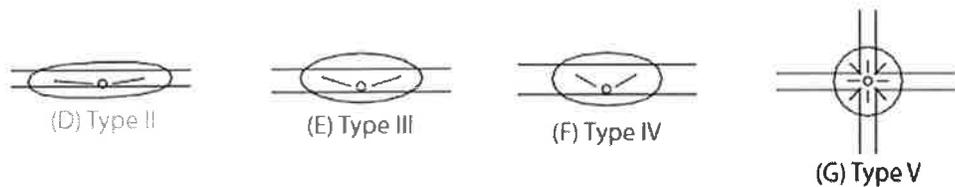
- 1) **Gather field audit information** – The design process begins with a field audit to identify the existing locations and attributes of your incumbent street lighting system and when possible match them with pre-existing PECO address information. The locations of your existing streetlights will remain for your LED conversion project, as moving fixtures to new locations would be cost prohibitive and unnecessary to achieve the RSLPP design goals. During the field audit, KLS gathers many key pieces of information on your existing lighting system, including but not limited to the geolocation of the pole, pole type and style, the fixture style (e.g. cobrahead or decorative), the mounting height of the fixture, length of the arm, angle of the arm to the roadway or intersection, and the wattage of the lamp. These attributes inform the rest of the design process. The audit process uses various sources to identify lamp wattage and type, in preference order: municipality confirmed specifications, observed lamp identified tag on fixture, PECO data when record can be matched to existing information, likely wattage given application and adjacent fixtures with known lamp types and wattages.
- 2) **Identify the correct fixture type for the application** – In most cases the existing fixture style that was identified in the field audit (e.g. cobrahead or decorative) is the appropriate fixture type for the lighting application, and a replacement LED fixture of the same style will be used. If a different fixture style is warranted it will be specified and reviewed with the municipality.
- 3) **Identify the correct LED wattage and lumen package for proposed fixture** – There are two aspects to identifying the correct replacement wattage and lumen package for the new fixture. The first aspect is to identify a replacement LED fixture that meets or exceeds the illumination

levels of the existing fixture. The second aspect is standardizing the replacement fixtures to make sure that similar fixture types and wattages are utilized on similar roadway types defined by traffic volume data or roadway classification and municipal input. See the table in the Standardized Upgrade Plan for an overview of the standardization upgrade strategy applied to RSLPP projects.

Upgrade recommendations will also be advised by a less technical, but equally relevant approach, which is to utilize the general knowledge of what upgrades have worked well on previous rounds of the RSLPP and other KLS projects. This secondary assessment is used as a “sanity” check to the previous analysis driven approach discussed above. Some municipalities may make a decision, possibly consistent with current illumination levels, to have a relatively higher or lower illumination level than the standard recommended by KLS.

For area lighting applications (non-roadway), spaces to be illuminated are highly variable and not subject to standardization, the design approach of meeting or exceeding the lighting performance of the existing fixture is utilized.

- 4) **Identify the correct fixture distribution type** – All LED fixtures provide options for a distribution type, which is how light spreads out from the fixture to the ground or work surface. These distribution types as defined by the Illumination Engineering Society have the following shapes:



For roadway lighting applications with a fixture and arm, Type II distributions are used for mid-street general roadway applications. For intersections, Type III or V distributions are the options considered. When a single fixture is illuminating an intersection and the arm positioned at an angle (e.g. 45-degree) such that the fixture is in-line with the middle of an intersection a type V distribution is utilized. For all other intersections a Type III distribution will be utilized.

For street lighting applications with a post-top fixture (e.g. 4-Sided Colonial) Type II distributions will be utilized at mid-street locations and Type V at intersections.

For area lighting applications, spaces to be illuminated are highly variable requiring distribution types to be specified on a case by case basis. It is common for forward-throw type IV distributions to be utilized for area lighting applications such as parking lots with fixtures located on the perimeter.

It should be noted that in addition to specifying the correct distribution types that control how light is spread toward the ground, the RSLPP also minimizes uplight through the specification of “cut-off” fixtures. Cut-off fixtures have no uplight (above 90-degrees). All RSLPP cobrahead, shoebox, wallpack types will be specified as “cut-off” fixtures. Due to the nature of the fixture design, decorative fixtures “cut-off” is not typically available for specification, but the RSLPP utilizes fixtures that minimize uplight.

- 5) **Select the preferred color temperature** – Color temperature is the general perception of the light source color. The metric for color temperature is the Correlated Color Temperature (CCT) measured in Kelvin (K) temperature. Older technology color temperatures could range from yellow (high pressure sodium, CCT = ~2200K) to warm-white (incandescent, ~2700K) to white (metal halide, CCT = ~4000K) and blue-white (mercury vapor, CCT = ~5000K+). LED technology is generally available within a range of white options from 3000K (warm white) to 6500K (blue white). The RSLPP offers CCT options from ~3000K (warm white) to ~4000K (white). Municipalities make their selection of color temperature based on preferences utilizing input from KLS and evaluating previous installation in neighboring municipalities. Color temperatures can be mixed within a municipality utilizing different types in different areas (e.g. residential neighborhoods, commercial districts, etc.).

- 6) **Traffic signal lamp and sign upgrades** – LED traffic signal lamp and pedestrian sign upgrades are direct 1-for-1 replacements of the existing lamps and signs. LED upgrades meet the same fit, form and function of the existing lamps and signs while delivering significant operating cost savings for an attractive return on investment.

Standardized Upgrade Plan

Based on the general design approach discussed above, the following standardized upgrade plan has been developed for this lighting upgrade project.

Cobrahead					
Local Roadway					
Existing Lamp Type	Typical Lamp Wattage	Proposed LED Fixture Watts	Optional Bump Up Wattage ¹	Distribution Type ²	Color Temperature
High Pressure Sodium	70W or 100W	38W	53W	Mid-Street > Type 2 Intersection > Type 3 or 5	Municipality Choice 3000K or 4000K
Metal Halide	100W or 175W	38W	53W		
Mercury Vapor	100W or 175W	38W	53W		
Collector Roadway					
Existing Lamp Type	Typical Lamp Wattage	Proposed LED Fixture Watts	Optional Bump Up Wattage ¹	Distribution Type	Color Temperature
High Pressure Sodium	150W	73W	88W	Mid-Street > Type 2 Intersection > Type 3 or 5	Municipality Choice 3000K or 4000K
Metal Halide	175W or 250W	73W	88W		
Mercury Vapor	175W or 250W	73W	88W		
Major Roadway					
Existing Lamp Type	Typical Lamp Wattage	Proposed LED Fixture Watts	Optional Bump Up Wattage ¹	Distribution Type	Color Temperature
High Pressure Sodium	250W or 400W	106W	161W	Mid-Street > Type 2 Intersection > Type 3 or 5	Municipality Choice 3000K or 4000K
Metal Halide	250W or 400W	106W	161W		
Mercury Vapor	250W or 400W	106W	161W		

Notes:

- 1) Bump up wattage could be selected for overall higher illumination levels (30-40%) throughout a municipality or at intersections. It also would be the recommended specification level when using controls with the expectation of dimming down to the desired design level at time of installation.
- 2) Type 5 distribution to be used at intersections with a single fixture illuminating the intersection with arm positioned on 45-degree angle toward center of the intersection. All other intersection applications should use Type 3.

4-Sided Colonial					
All Roadway Types					
Existing Lamp Type	Typical Lamp Wattage	Proposed LED Fixture Watts	Optional Bump Up Wattage ¹	Distribution Type	Color Temperature
High Pressure Sodium	70W or 100W	39W	46W	Mid-Street > Type 2 Intersection > Type 5	Municipality Choice 3000K or 4000K
Metal Halide	100W or 175W	39W	46W		
Mercury Vapor	100W or 175W	39W	46W		

Notes:

- 1) Bump up wattage could be selected for overall higher illumination levels throughout a municipality or at intersections

Premium Decorative Fixtures (Lanterns & Acorns)					
All Roadway Types					
Existing Lamp Type	Typical Lamp Wattage	Proposed LED Fixture Watts	Optional Bump Up Wattage ¹	Distribution Type	Color Temperature
High Pressure Sodium	150W	40W	70W	Mid-Street > Type 2 Intersection > Type 5	Municipality Choice 3000K or 4000K
Metal Halide	175W	40W	70W		
Mercury Vapor	175W	40W	70W		

Notes:

- 1) Bump up wattage could be selected for overall higher illumination levels throughout a municipality or at intersections

Advanced Lighting Control Upgrade Options

Standard control solutions, such as fixture-mounted photocells that are currently being used in the municipality's existing lighting system will be offered as baseline replacement solutions for all new LED fixtures in this project. Retrofit kits will reuse existing photocells. Fixtures that are currently controlled by time clocks and/or master photocells, those centralized control systems will be used to control new LED fixtures. Advanced Lighting Controls can be layered on the standard LED fixture upgrade options in place of or in addition to the standard control solutions. The benefits of Advanced Lighting Control include the potential for additional energy and maintenance savings. There are no additional design costs associated with the specification of advanced lighting controls, but depending on the type of controls specified, there will be additional project costs to purchase and install the controls. The sections below define the available control options that have been identified through the RSLPP procurement process. Savings and project costs for Manual Fixture Controls and Network Control Solutions are provided for consideration in later sections.

Manual Fixture Controls

Manual Fixture Controls are available to control LED cobrahead and 4-sided colonial fixtures solutions selected through the RSLPP, and these would be specified in addition to a standard photocell. A manual fixture control is located in the fixture housing, not visible to the public, and allows for light levels to be adjusted up or down. When this control option is requested, the next higher fixture lumen package is specified and during installation the control is "dialed-down" to the desired wattage and lumen output at the time of installation. This option is not typically used to save energy but rather to provide future flexibility to increase or decrease illumination levels based on application needs. When LED fixtures are dimmed, they do experience longer life, which delivers additional maintenance savings. In Round I of the RSLPP more than 30% of municipalities choose this option. Manual fixture controls are not typically used area lighting fixtures. Below are the components and additional costs associated with these manual fixture controls:

- Cobrahead
 - Manual fixture control adder = \$15.29
 - Next higher lumen package fixture adder = \$10-30
 - No additional installation related costs
- 4-Sided Colonial
 - Manual fixture control adder = \$16.57
 - Next higher lumen package fixture adder = \$0-30
 - No additional installation related costs

Stand-Alone Dimming Controls

Stand-alone dimming controls are typically useful for area lighting fixtures where automatic dimming is desired during the fixture "on" period or where a timeclock is not available to turn lights off during the typical photocell fixture "on" period. Two types of stand-alone dimming controls are available: a **photocell replacement option** or a **separate dimming module** wired as an additional fixture component. These local connected controls allow for "pre-set" dimming schedules to be defined for each fixture. For example, if it is desired for a set of fixtures (e.g. parking lot) to illuminate at dusk, dim down to 30% at 2am and turn off at dawn, the local

connected control can be set for this specific dimming strategy. Often these controls can be connected to a local networking technology (e.g. Bluetooth) and re-programmed on-site. Below are the options and additional costs associated with these stand-alone dimming controls:

- Photocell Replacement Option
 - Photocell replacement unit price adder = \$44.02
 - No additional installation related costs
- Separate Dimming Module
 - Dimming module unit price adder = Pricing not evaluated in the RSLPP procurement process but available upon request
 - Installation unit price adder = Pricing not evaluated in the RSLPP procurement process but available upon request

Network Control System

If a municipality wants complete control of a lighting system with remote networked access, then a network control system can be specified and designed. These control systems allow a municipality to manage and remotely modify master dimming schedules for all connected fixtures. A network control system also monitors the operations of all connected fixtures. Outages or under-performing fixtures can be quickly identified and, in most cases, be included in a proactive reporting to the municipality. This option can be used to save energy but is typically specified for the asset management benefits. In Round I of the RSLPP one municipality choose this option.

For this round of the RSLPP, the network control system selected utilizes fixture mounted nodes that communicate via a mesh network to one or more gateways (municipality size) that communicate to a cloud-based server. Municipalities can access the cloud-based server with a standard internet connection. This control system will likely be eligible for the PECO SL-C tariff which could generate additional energy savings. Municipalities that install a network control system will not also need photocells.

Below are the components and additional costs associated with a network control system:

- Fixture Node
 - Node unit price adder = \$101.32
 - Node replaces standard photocell and associated cost (\$11.87)
 - Node annual fees = \$2/node/year or \$40/node for 20 years
 - No additional installation related costs
- Control System Gateway
 - Gateway unit price adder = \$1,593
 - Installation unit price adder = \$3,000
 - Multiple gateways may be required depending on municipality size

Upgrade Specifications & Savings

Annual Energy Savings – Unmetered Streetlights

The following table shows the energy and cost comparison between the field audit verified existing streetlight system and the proposed LED upgrade solutions. The resulting annual energy savings associated with the LED upgrade is also shown. If any differences were identified between the PECO energy and cost baseline and the field audit verified existing streetlight system, those adjustments and associated cost impacts are reflected in the PECO Inventory Adjustment at the bottom of the chart. The cost or savings impact of any service location adjustments (e.g. due to PECO buyback and tariff change) is also shown in this table.

Existing							Upgrade							Savings
Fixture Type Code	Fixture Type Description	Watts/ Fixture	Fixture Quantity	Total kW	Total kWh/ Year	Annual Electric Costs	Fixture Type Code	Fixture Type Description	Watts/ Fixture	Fixture Quantity	Total kW	Total kWh/ Year	Annual Electric Costs	Annual Energy Cost Savings
Cobrahead														
CH-100W-HPS	Cobrahead, 100W HPS	131	1	0.1	536	\$28	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	106	1	0.1	434	\$23	\$5
CH-100W-HPS	Cobrahead, 100W HPS	131	1	0.1	536	\$28	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	106	1	0.1	434	\$23	\$5
CH-100W-HPS	Cobrahead, 100W HPS	131	1	0.1	536	\$28	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	73	1	0.1	299	\$16	\$12
CH-100W-HPS	Cobrahead, 100W HPS	131	1	0.1	536	\$28	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	73	1	0.1	299	\$16	\$12
CH-100W-MV	Cobrahead, 100W MV	115	2	0.2	941	\$49	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	106	2	0.2	868	\$45	\$4
CH-100W-MV	Cobrahead, 100W MV	115	2	0.2	941	\$49	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	106	2	0.2	868	\$45	\$4
CH-100W-MV	Cobrahead, 100W MV	115	2	0.2	941	\$49	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	73	2	0.1	597	\$31	\$18
CH-150W-HPS	Cobrahead, 150W HPS	192	3	0.6	2,357	\$123	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	106	3	0.3	1,301	\$68	\$55
CH-150W-HPS	Cobrahead, 150W HPS	192	2	0.4	1,571	\$82	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	106	2	0.2	868	\$45	\$37
CH-150W-HPS	Cobrahead, 150W HPS	192	1	0.2	786	\$41	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	106	1	0.1	434	\$23	\$18
CH-150W-HPS	Cobrahead, 150W HPS	192	1	0.2	786	\$41	CH-38W-LED-T5-4K (+PC)	Cobrahead, LED, 38W, Type 5	38	1	0.0	155	\$8	\$33
CH-150W-HPS	Cobrahead, 150W HPS	192	2	0.4	1,571	\$82	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	73	2	0.1	597	\$31	\$51
CH-150W-HPS	Cobrahead, 150W HPS	192	2	0.4	1,571	\$82	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	73	2	0.1	597	\$31	\$51
CH-150W-HPS	Cobrahead, 150W HPS	192	1	0.2	786	\$41	No Upgrade	No Upgrade	192	1	0.2	786	\$41	\$0
CH-150W-HPS	Cobrahead, 150W HPS	192	21	4.0	16,499	\$864	CH-73W-LED-T2-4K (+PC)	Cobrahead, LED, 73W, Type 2	73	21	1.5	6,273	\$328	\$535
CH-175W-MV	Cobrahead, 175W MV	191	1	0.2	782	\$41	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	106	1	0.1	434	\$23	\$18
CH-175W-MV	Cobrahead, 175W MV	191	1	0.2	782	\$41	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	106	1	0.1	434	\$23	\$18
CH-175W-MV	Cobrahead, 175W MV	191	1	0.2	782	\$41	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	106	1	0.1	434	\$23	\$18
CH-175W-MV	Cobrahead, 175W MV	191	1	0.2	782	\$41	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	73	1	0.1	299	\$16	\$25
CH-175W-MV	Cobrahead, 175W MV	191	1	0.2	782	\$41	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	73	1	0.1	299	\$16	\$25
CH-175W-MV	Cobrahead, 175W MV	191	2	0.4	1,563	\$82	CH-73W-LED-T2-4K (+PC)	Cobrahead, LED, 73W, Type 2	73	2	0.1	597	\$31	\$51
CH-250W-HPS	Cobrahead, 250W HPS	294	48	14.1	57,746	\$3,023	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	106	48	5.1	20,820	\$1,090	\$1,933
CH-250W-HPS	Cobrahead, 250W HPS	294	3	0.9	3,609	\$189	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	106	3	0.3	1,301	\$68	\$121
CH-250W-HPS	Cobrahead, 250W HPS	294	2	0.6	2,406	\$126	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	106	2	0.2	868	\$45	\$81
CH-250W-HPS	Cobrahead, 250W HPS	294	7	2.1	8,421	\$441	CH-38W-LED-T3-4K (+PC)	Cobrahead, LED, 38W, Type 3	38	7	0.3	1,088	\$57	\$384
CH-250W-HPS	Cobrahead, 250W HPS	294	1	0.3	1,203	\$63	CH-38W-LED-T5-4K (+PC)	Cobrahead, LED, 38W, Type 5	38	1	0.0	155	\$8	\$55
CH-250W-HPS	Cobrahead, 250W HPS	294	9	2.6	10,827	\$567	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	73	9	0.7	2,688	\$141	\$426
CH-250W-HPS	Cobrahead, 250W HPS	294	4	1.2	4,812	\$252	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	73	4	0.3	1,195	\$63	\$189
CH-250W-MV	Cobrahead, 250W MV	275	1	0.3	1,125	\$59	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	106	1	0.1	434	\$23	\$36
CH-400W-HPS	Cobrahead, 400W HPS	450	1	0.5	1,841	\$96	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	106	1	0.1	434	\$23	\$74
CH-400W-HPS	Cobrahead, 400W HPS	450	1	0.5	1,841	\$96	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	106	1	0.1	434	\$23	\$74
CH-400W-HPS	Cobrahead, 400W HPS	450	1	0.5	1,841	\$96	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	73	1	0.1	299	\$16	\$81
CH-400W-HPS	Cobrahead, 400W HPS	450	4	1.8	7,366	\$386	No Upgrade	No Upgrade	450	4	1.8	7,366	\$386	\$0
CH-87W-LED	Cobrahead, 87W LED	87	38	3.3	13,528	\$708	No Upgrade	No Upgrade	87	38	3.3	13,528	\$708	\$0
CH-163W-LED	Cobrahead, 163W LED	163	10	1.6	6,670	\$349	No Upgrade	No Upgrade	163	10	1.6	6,670	\$349	\$0
CH-215W-LED	Cobrahead, 215W LED	215	10	2.2	8,798	\$461	No Upgrade	No Upgrade	215	10	2.2	8,798	\$461	\$0
CH-99W-HPS	Cobrahead, 99W HPS	131	3	0.4	1,608	\$84	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	106	3	0.3	1,301	\$68	\$16
CH-99W-HPS	Cobrahead, 99W HPS	131	2	0.3	1,072	\$56	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	106	2	0.2	868	\$45	\$11
CH-99W-HPS	Cobrahead, 99W HPS	131	1	0.1	536	\$28	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	73	1	0.1	299	\$16	\$12
0110KH	Sportlight, 1000W MH	1,090	12	13.1	53,523	\$2,802	No Upgrade	No Upgrade	1,090	12	13.1	53,523	\$2,802	\$0
59000M	Streetlight, 1000W MV	1,090	48	52.3	214,093	\$11,210	No Upgrade	No Upgrade	1,090	48	52.3	214,093	\$11,210	\$0
Cobrahead Total			256	107.3	439,235	\$22,998				256	86.4	353,467	\$18,507	\$4,491

Annual Energy Savings – Unmetered Streetlights (continued)

Existing							Upgrade							Savings
Fixture Type Code	Fixture Type Description	Watts/ Fixture	Fixture Quantity	Total kW	Total kWh/ Year	Annual Electric Costs	Fixture Type Code	Fixture Type Description	Watts/ Fixture	Fixture Quantity	Total kW	Total kWh/ Year	Annual Electric Costs	Annual Energy Cost Savings
Decorative														
Topaz-20W-COB	Corn Cob, 20W, LED	20	105	2.1	8,593	\$450	4SC-39W-LED-T2-4K (+PC)	4-Sided Colonial, 39W, LED	39	105	4.1	16,757	\$877	(\$427)
4SC-100W-HPS	4-Sided Colonial, 100W HPS	131	886	116.1	474,942	\$24,867	4SC-39W-LED-T2-4K (+PC)	4-Sided Colonial, 39W, LED	39	886	34.6	141,395	\$7,403	\$17,464
4SC-100W-HPS	4-Sided Colonial, 100W HPS	131	235	30.8	125,972	\$6,596	4SC-39W-LED-T5-4K (+PC)	4-Sided Colonial, 39W, LED	39	235	9.2	37,503	\$1,964	\$4,632
4SC-100W-HPS	4-Sided Colonial, 100W HPS	131	19	2.5	10,185	\$533	No Upgrade	No Upgrade	131	19	2.5	10,185	\$533	\$0
Decorative Total			1,245	151.4	619,692	\$32,446				1,245	50.3	205,840	\$10,777	\$21,669
Existing and Upgrade Totals			1,501	258.8	1,058,928	\$55,444				1,501	136.7	559,307	\$29,284	\$26,159
Baseline Adjustments														
kWh Adjustment	PECO Inventory kWh Adjustment			(16.9)	(69,020)	(\$3,614)								(\$3,614)
Locations Adjustment	PECO Inventory Locations Adjustment													\$0
Baseline Adjustments Total				(16.9)	(69,020)	(\$3,614)					0.0	0	\$0	(\$3,614)
Streetlight Total			1,501	241.9	989,908	\$51,830				1,501	136.7	559,307	\$29,284	\$22,546

PECO Streetlight Bill Comparison

The following table provides a comparison of what how the existing PECO streetlight compares to the proposed PECO streetlight bill and the resulting project savings.

Existing Bill						Upgrade Bill						Project Savings	
Fixture Type Code	Fixture Type Description	Watts/ Fixture	Fixture Quantity	Total kWh/ Year	Annual Electric Costs	Fixture Type Code	Fixture Type Description	Watts/ Fixture	Fixture Quantity	Total kWh/ Year	Annual Electric Costs	Annual kWh Savings	Annual Energy Cost Savings
Streetlights						Cobraheads							
0110KH	Sportlight, 1000W MH	1,090	12	53,523	\$2,802	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	106	10	4,338	\$227		
04000M	Streetlight, 100W MV	115	36	16,941	\$887	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	106	58	25,158	\$1,317		
05800S	Streetlight, 70W HPS	94	55	21,156	\$1,108	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	106	8	3,470	\$182		
08000M	Streetlight, 175W MV	191	42	32,826	\$1,719	CH-163W-LED	Cobrahead, 163W LED	163	10	6,670	\$349		
09500S	Streetlight, 100W HPS	131	1,075	576,256	\$30,172	CH-215W-LED	Cobrahead, 215W LED	215	10	8,798	\$461		
12000M	Streetlight, 250W MV	275	7	7,877	\$412	CH-38W-LED-T3-4K (+PC)	Cobrahead, LED, 38W, Type 3	38	7	1,088	\$57		
16000S	Streetlight, 150W HPS	192	40	31,427	\$1,645	CH-38W-LED-T5-4K (+PC)	Cobrahead, LED, 38W, Type 5	38	2	311	\$16		
20000M	Streetlight, 400W MV	429	11	19,310	\$1,011	CH-87W-LED	Cobrahead, 87W LED	87	38	13,528	\$708		
25000S	Streetlight, 250W HPS	294	3	3,609	\$189	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	73	13	3,883	\$203		
50000S	Streetlight, 400W HPS	450	7	12,890	\$675	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	73	12	3,585	\$188		
59000M	Streetlight, 1000W MV	1,090	48	214,093	\$11,210	CH-150W-HPS	Cobrahead, 150W HPS	192	1	786	\$41		
						CH-73W-LED-T2-4K (+PC)	Cobrahead, LED, 73W, Type 2	73	23	6,870	\$360		
						CH-400W-HPS	Cobrahead, 400W HPS	450	4	7,366	\$386		
						0110KH	Sportlight, 1000W MH	1,090	12	53,523	\$2,802		
						59000M	Streetlight, 1000W MV	1,090	48	214,093	\$11,210		
						Cobrahead Sub-Total			256	353,467	\$18,507		
						Decorative							
						45C-39W-LED-T2-4K (+PC)	4-Sided Colonial, 39W, LED	39	886	141,395	\$7,403		
						45C-39W-LED-T5-4K (+PC)	4-Sided Colonial, 39W, LED	39	340	54,260	\$2,841		
						45C-100W-HPS	4-Sided Colonial, 100W HPS	131	19	10,185	\$533		
						Decorative Sub-Total			1,245	205,840	\$10,777		
						Streetlight Energy			1,501	559,307	\$29,284	430,601	\$22,546
						Streetlight Locations			530		\$42,485		\$0
						Streetlight Total Bill					\$71,769		\$22,546
Streetlight Energy			1,336	989,908	\$51,830								
Streetlight Locations			530		\$42,485								
Streetlight Total Bill					\$94,315								

Annual Energy Savings – Unmetered Traffic Signal Lamps and Signs

The following table shows the energy and cost comparison between the field audit verified existing traffic signal lamps and signs and the proposed LED upgrade solutions. The resulting annual energy savings associated with the LED upgrade is also shown. If any differences were identified between the PECO Baseline and Existing System, those pre-upgrade adjustments and associated cost impacts are reflected in the PECO Adjustment at the bottom of the chart. The cost or savings impact of any service location adjustments (e.g. due to PECO buyback and tariff change) is also shown in this table.

Existing							Upgrade							Savings
Lamp, Sign or Control Type Code	Lamp, Sign or Control Description	Lamp, Sign or Control Watts	Lamp, Sign or Control Quantity	Total kW	Total kWh/Year	Annual Electric Costs	Lamp, Sign or Control Type Code	Lamp, Sign or Control Description	Lamp, Sign or Control Watts	Lamp, Sign or Control Quantity	Total kW	Total kWh/Year	Annual Electric Costs	Annual Energy Cost Savings
Traffic Signal Lamps, Signs and Controls														
OMINLT	Flashing Lights	0	4	0.0	0	\$0	No Upgrade	No Upgrade	0	4	0.0	0	\$0	\$0
EMPESD	Preemption Devices	2	35	0.1	605	\$31	No Upgrade	No Upgrade	2	35	0.1	605	\$31	\$0
G LED TA - 12	12" LED Traffic Arrow Green	13	123	1.6	1,105	\$57	TA-LED-G-12	Traffic Signal, Arrow, 12" - Green	6	123	0.7	510	\$26	\$31
G LED TL - 12	12" LED Green	12	406	4.9	18,100	\$932	TL-LED-G-12	Traffic Signal, Round, 12" - Green	7	406	2.7	10,106	\$520	\$412
G LED TL - 8	8" LED Green	14	12	0.2	624	\$32	TL-LED-G-8	Traffic Signal, Round, 8" - Green	6	12	0.1	267	\$14	\$18
HNDSGN	LED Hand/Man	8	181	1.4	12,511	\$644	No Upgrade	No Upgrade	8	181	1.4	12,511	\$644	\$0
NTMNTR	Traffic Monitoring Devices	5	33	0.2	1,426	\$73	No Upgrade	No Upgrade	5	33	0.2	1,426	\$73	\$0
R LED TL - 12	12" LED Red	11	415	4.6	21,693	\$1,117	TL-LED-R-12	Traffic Signal, Round, 12" - Red	6	415	2.6	12,227	\$630	\$487
R LED TL - 8	8" LED Red	6	12	0.1	342	\$18	TL-LED-R-8	Traffic Signal, Round, 8" - Red	6	12	0.1	342	\$18	\$0
Y LED TA - 12	12" LED Traffic Arrow Yellow	10	110	1.1	760	\$39	TA-LED-Y-12	Traffic Signal, Arrow, 12" - Yellow	7	110	0.8	555	\$29	\$11
Y LED TL - 12	12" LED Yellow	18	412	7.4	1,281	\$66	TL-LED-Y-12	Traffic Signal, Round, 12" - Yellow	10	412	4.0	691	\$36	\$30
Y LED TL - 8	8" LED Yellow	12	16	0.2	33	\$2	TL-LED-Y-8	Traffic Signal, Round, 8" - Yellow	6	16	0.1	17	\$1	\$1
R LED TA - 12	12" LED Traffic Arrow Red	10	7	0.1	48	\$2	TA-LED-R-12	Traffic Signal, Arrow, 12" - Red	7	7	0.1	35	\$2	\$1
Existing and Upgrade Totals			1,766	21.7	58,529	\$3,014			1,766	12.8	39,291	\$2,023	\$991	
Baseline Adjustments														
kWh Adjustment	PECO Inventory kWh Adjustment			2.0	15,224	\$784								\$784
Locations Adjustment	PECO Inventory Locations Adjustment													\$0
Baseline Adjustments Total				2.0	15,224	\$784			0.0	0	\$0			\$784
Streetlight Total			1,766	23.8	73,753	\$3,797			1,766	12.8	39,291	\$2,023	\$1,774	

PECO Traffic Signal Bill Comparison

The following table provides a comparison of what how the existing PECO streetlight compares to the proposed PECO streetlight bill and the resulting project savings.

Existing Bill						Upgrade Bill						Project Savings	
Lamp/Sign Type Code	Lamp/Sign Type Description	Lamp/Sign Watts	Lamp/Sign Quantity	Total kWh/Year	Annual Electric Costs	Signal Type Code	Signal Type Description	Watts/Fixture	Fixture Quantity	Total kWh/Year	Annual Electric Costs	Annual kWh Savings	Annual Energy Cost Savings
Traffic Signals, Signs and Controls						Traffic Signals, Signs and Controls							
00LOOP	Loops	5	192	8,294	\$427	0MINLT	Flashing Lights	0	4	0	\$0		
0MINLT	Flashing Lights	0	4	0	\$0	EMPESD	Preemption Devices	2	35	605	\$31		
EMPESD	Preemption Devices	2	35	605	\$31	HNDSGN	LED Hand/Man	8	181	12,511	\$644		
G 000 TA - 12	12" Incandescent Traffic Arrow Green	150	2	207	\$11	NTMNTR	Traffic Monitoring Devices	5	33	1,426	\$73		
G 000 TL - 12	12" Incandescent Green	150	13	7,245	\$373	TA-LED-G-12	Traffic Signal, Arrow, 12" - Green	6	123	510	\$26		
G LED TA - 12	12" LED Traffic Arrow Green	13	93	836	\$43	TA-LED-R-12	Traffic Signal, Arrow, 12" - Red	7	7	35	\$2		
G LED TL - 8	8" LED Green	14	361	18,777	\$967	TA-LED-Y-12	Traffic Signal, Arrow, 12" - Yellow	7	110	555	\$29		
HNDSGN	LED Hand/Man	8	106	7,327	\$377	TL-LED-G-12	Traffic Signal, Round, 12" - Green	7	406	10,106	\$520		
NTMNTR	Traffic Monitoring Devices	5	33	1,426	\$73	TL-LED-G-8	Traffic Signal, Round, 8" - Green	6	12	267	\$14		
R 000 TL - 12	12" Incandescent Red	150	13	9,266	\$477	TL-LED-R-12	Traffic Signal, Round, 12" - Red	6	415	12,227	\$630		
R LED TL - 8	8" LED Red	6	418	11,918	\$614	TL-LED-R-8	Traffic Signal, Round, 8" - Red	6	12	342	\$18		
TRCONT	Motor Controller	15	45	5,832	\$300	TL-LED-Y-12	Traffic Signal, Round, 12" - Yellow	10	412	691	\$36		
Y 000 TA - 12	12" Incandescent Traffic Arrow Yellow	150	2	207	\$11	TL-LED-Y-8	Traffic Signal, Round, 8" - Yellow	6	16	17	\$1		
Y 000 TL - 12	12" Incandescent Yellow	150	13	337	\$17								
Y LED TA - 12	12" LED Traffic Arrow Yellow	10	90	622	\$32								
Y LED TL - 8	8" LED Yellow	12	412	854	\$44								
Traffic Signal Energy			1,832	73,753	\$3,797	Traffic Signal Energy			1,766	39,291	\$2,023	34,462	\$1,774
Traffic Signal Locations			43		\$1,894	Traffic Signal Locations			43		\$1,894		\$0
Traffic Signal Total Bill					\$5,691	Traffic Signal Total Bill					\$3,917		\$1,774

Annual Maintenance Savings – Unmetered Streetlights

The following table shows the annual maintenance savings for each existing fixture type and the upgrade recommendation. Average annual maintenance expenses were modeled for both the existing and proposed fixture types. Average annual maintenance expenses for proposed fixtures were further reduced to reflect a 1-year labor warranty and a 10-year parts warranty. The assumptions used to estimate Annual Maintenance savings are provided in Appendix B, Project Assumptions. If any differences were identified between the PECO inventory baseline and the field audit verified existing streetlight system, those maintenance related cost impacts are reflected in the PECO Inventory Adjustment at the bottom of the chart.

Fixture Type Code	Existing			Upgrade				Savings Annual Maintenance Savings
	Fixture Type Description	Fixture Quantity	Annual Maintenance Costs	Fixture Type Code	Fixture Type Description	Fixture Quantity	Annual Maintenance Costs	
Cobrahead								
CH-100W-HPS	Cobrahead, 100W HPS	1	\$14	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	1	\$4	\$10
CH-100W-HPS	Cobrahead, 100W HPS	1	\$14	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	1	\$4	\$10
CH-100W-HPS	Cobrahead, 100W HPS	1	\$14	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	1	\$4	\$10
CH-100W-HPS	Cobrahead, 100W HPS	1	\$14	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	1	\$4	\$10
CH-100W-MV	Cobrahead, 100W MV	2	\$29	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	2	\$8	\$20
CH-100W-MV	Cobrahead, 100W MV	2	\$29	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	2	\$8	\$20
CH-100W-MV	Cobrahead, 100W MV	2	\$29	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	2	\$8	\$21
CH-150W-HPS	Cobrahead, 150W HPS	1	\$14	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	1	\$4	\$10
CH-150W-HPS	Cobrahead, 150W HPS	3	\$43	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	3	\$12	\$31
CH-150W-HPS	Cobrahead, 150W HPS	2	\$29	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	2	\$8	\$20
CH-150W-HPS	Cobrahead, 150W HPS	1	\$14	CH-38W-LED-T5-4K (+PC)	Cobrahead, LED, 38W, Type 5	1	\$4	\$11
CH-150W-HPS	Cobrahead, 150W HPS	2	\$29	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	2	\$8	\$21
CH-150W-HPS	Cobrahead, 150W HPS	2	\$29	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	2	\$8	\$21
CH-150W-HPS	Cobrahead, 150W HPS	1	\$14	No Upgrade	No Upgrade	1	\$14	\$0
CH-150W-HPS	Cobrahead, 150W HPS	21	\$301	CH-73W-LED-T2-4K (+PC)	Cobrahead, LED, 73W, Type 2	21	\$81	\$220
CH-175W-MV	Cobrahead, 175W MV	1	\$14	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	1	\$4	\$10
CH-175W-MV	Cobrahead, 175W MV	1	\$14	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	1	\$4	\$10
CH-175W-MV	Cobrahead, 175W MV	1	\$14	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	1	\$4	\$10
CH-175W-MV	Cobrahead, 175W MV	1	\$14	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	1	\$4	\$10
CH-175W-MV	Cobrahead, 175W MV	1	\$14	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	1	\$4	\$10
CH-175W-MV	Cobrahead, 175W MV	2	\$29	CH-73W-LED-T2-4K (+PC)	Cobrahead, LED, 73W, Type 2	2	\$8	\$21
CH-250W-HPS	Cobrahead, 250W HPS	2	\$29	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	2	\$8	\$20
CH-250W-HPS	Cobrahead, 250W HPS	48	\$687	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	48	\$199	\$488
CH-250W-HPS	Cobrahead, 250W HPS	3	\$43	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	3	\$12	\$31
CH-250W-HPS	Cobrahead, 250W HPS	7	\$100	CH-38W-LED-T3-4K (+PC)	Cobrahead, LED, 38W, Type 3	7	\$26	\$74
CH-250W-HPS	Cobrahead, 250W HPS	1	\$14	CH-38W-LED-T5-4K (+PC)	Cobrahead, LED, 38W, Type 5	1	\$4	\$11
CH-250W-HPS	Cobrahead, 250W HPS	9	\$129	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	9	\$35	\$94
CH-250W-HPS	Cobrahead, 250W HPS	4	\$57	CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	4	\$15	\$42
CH-250W-MV	Cobrahead, 250W MV	1	\$14	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	1	\$4	\$10
CH-400W-HPS	Cobrahead, 400W HPS	1	\$14	CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	1	\$4	\$10
CH-400W-HPS	Cobrahead, 400W HPS	1	\$14	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	1	\$4	\$10
CH-400W-HPS	Cobrahead, 400W HPS	1	\$14	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	1	\$4	\$10
CH-400W-HPS	Cobrahead, 400W HPS	4	\$57	No Upgrade	No Upgrade	4	\$57	\$0
CH-87W-LED	Cobrahead, 87W LED	38	\$175	No Upgrade	No Upgrade	38	\$175	\$0
CH-163W-LED	Cobrahead, 163W LED	10	\$46	No Upgrade	No Upgrade	10	\$46	\$0
CH-215W-LED	Cobrahead, 215W LED	10	\$46	No Upgrade	No Upgrade	10	\$46	\$0
CH-99W-HPS	Cobrahead, 99W HPS	2	\$29	CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	2	\$8	\$20
CH-99W-HPS	Cobrahead, 99W HPS	3	\$43	CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	3	\$12	\$31
CH-99W-HPS	Cobrahead, 99W HPS	1	\$14	CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	1	\$4	\$10
Q110KH	Sportlight, 1000W MH	12	\$196	No Upgrade	No Upgrade	12	\$196	\$0
59000M	Streetlight, 1000W MV	48	\$589	No Upgrade	No Upgrade	48	\$589	\$0
Cobrahead Total		256	\$3,029			256	\$1,658	\$1,371

Annual Maintenance Savings – Unmetered Streetlights (continued)

Existing				Upgrade				Savings
Fixture Type Code	Fixture Type Description	Fixture Quantity	Annual Maintenance Costs	Fixture Type Code	Fixture Type Description	Fixture Quantity	Annual Maintenance Costs	Annual Maintenance Savings
Decorative								
Topaz-20W-CO8	Corn Cob, 20W, LED	105	\$193	4SC-39W-LED-T2-4K (+PC)	4-Sided Colonial, 39W, LED	105	\$826	(\$633)
4SC-100W-HPS	4-Sided Colonial, 100W HPS	886	\$12,689	4SC-39W-LED-T2-4K (+PC)	4-Sided Colonial, 39W, LED	886	\$6,969	\$5,720
4SC-100W-HPS	4-Sided Colonial, 100W HPS	235	\$3,366	4SC-39W-LED-T5-4K (+PC)	4-Sided Colonial, 39W, LED	235	\$1,849	\$1,517
4SC-100W-HPS	4-Sided Colonial, 100W HPS	19	\$272	No Upgrade	No Upgrade	19	\$272	\$0
Decorative Total		1,245	\$16,520			1,245	\$9,916	\$6,605
Existing and Upgrade Totals		1,501	\$19,550			1,501	\$11,574	\$7,976

Unmetered Traffic Signal Maintenance Savings

The following table shows the annual maintenance savings for each existing traffic signal lamp, sign and control and the upgrade recommendation. Average annual maintenance expenses were modeled for both the existing and proposed fixture types. Average annual maintenance expenses for proposed fixtures were further reduced to reflect a 1-year labor warranty and a 10-year parts warranty. The assumptions used to estimate Annual Maintenance savings are provided in Appendix B, Project Assumptions. If any differences were identified between the PECO inventory baseline and the field audit verified existing streetlight system, those maintenance related cost impacts are reflected in the PECO Inventory Adjustment at the bottom of the chart.

Existing				Upgrade				Savings
Lamp, Sign or Control Type Code	Lamp, Sign or Control Description	Lamp, Sign or Control Quantity	Annual Maintenance Costs	Lamp, Sign or Control Type Code	Lamp, Sign or Control Description	Lamp, Sign or Control Quantity	Annual Maintenance Costs	Annual Maintenance Savings
Unmetered Traffic Signal Lighting								
OMINLT	Flashing Lights	4	\$28	No Upgrade	No Upgrade	4	\$28	\$0
EMPESD	Preemption Devices	35	\$0	No Upgrade	No Upgrade	35	\$0	\$0
G LED TA - 12	12" LED Traffic Arrow Green	123	\$861	TA-LED-G-12	Traffic Signal, Arrow, 12" - Green	123	\$151	\$710
G LED TL - 12	12" LED Green	406	\$2,842	TL-LED-G-12	Traffic Signal, Round, 12" - Green	406	\$440	\$2,402
G LED TL - 8	8" LED Green	12	\$84	TL-LED-G-8	Traffic Signal, Round, 8" - Green	12	\$13	\$71
HNDSGN	LED Hand/Man	181	\$634	No Upgrade	No Upgrade	181	\$634	\$0
NTMNTR	Traffic Monitoring Devices	33	\$0	No Upgrade	No Upgrade	33	\$0	\$0
R LED TL - 12	12" LED Red	415	\$2,905	TL-LED-R-12	Traffic Signal, Round, 12" - Red	415	\$450	\$2,455
R LED TL - 8	8" LED Red	12	\$84	TL-LED-R-8	Traffic Signal, Round, 8" - Red	12	\$13	\$71
Y LED TA - 12	12" LED Traffic Arrow Yellow	110	\$770	TA-LED-Y-12	Traffic Signal, Arrow, 12" - Yellow	110	\$135	\$635
Y LED TL - 12	12" LED Yellow	412	\$2,884	TL-LED-Y-12	Traffic Signal, Round, 12" - Yellow	412	\$447	\$2,437
Y LED TL - 8	8" LED Yellow	16	\$112	TL-LED-Y-8	Traffic Signal, Round, 8" - Yellow	16	\$18	\$94
R LED TA - 12	12" LED Traffic Arrow Red	7	\$49	TA-LED-R-12	Traffic Signal, Arrow, 12" - Red	7	\$9	\$40
Existing and Upgrade Totals		1,766	\$11,253			1,766	\$2,337	\$8,915

Bill of Material and Project Costs

The following table shows the bill of material (BOM) for proposed upgrade scope of work. In addition to material and installation costs, a summary of DSP Fees and Program Fees are included – all per unit costs associated with, material, installation, DSP fees, and Program fees are further defined in Appendix C. Rebates from PECO and PJM (regional transmission organization) are also included in this table and further defined in Appendix B.

Fixture Type Code	Fixture Type Description	Fixture Quantity	Material Costs	Install Costs	Rebates	KLS Fees	DVRPC Program Fees	Contingency	Interest Costs	Total Project Costs
Cobrahead										
CH-106W-LED-T3-4K (+PC)	Cobrahead, LED, 106W, Type 3	58	\$11,776	\$4,930	(\$4,444)	\$1,972	\$600	\$835	\$4,678	\$20,347
CH-106W-LED-T5-4K (+PC)	Cobrahead, LED, 106W, Type 5	8	\$1,624	\$680	(\$571)	\$272	\$83	\$115	\$645	\$2,848
CH-106W-LED-T2-4K (+PC)	Cobrahead, LED, 106W, Type 2	10	\$2,030	\$850	(\$493)	\$340	\$103	\$144	\$807	\$3,782
CH-38W-LED-T3-4K (+PC)	Cobrahead, LED, 38W, Type 3	7	\$904	\$595	(\$633)	\$238	\$57	\$75	\$435	\$1,671
CH-38W-LED-T5-4K (+PC)	Cobrahead, LED, 38W, Type 5	2	\$258	\$170	(\$175)	\$68	\$16	\$21	\$124	\$483
CH-87W-LED	No Upgrade, Include in Audit	38	\$0	\$0	\$0	\$1,292	\$65	\$0	\$316	\$1,672
CH-163W-LED	No Upgrade, Include in Audit	10	\$0	\$0	\$0	\$340	\$17	\$0	\$83	\$440
CH-215W-LED	No Upgrade, Include in Audit	10	\$0	\$0	\$0	\$340	\$17	\$0	\$83	\$440
CH-73W-LED-T3-4K (+PC)	Cobrahead, LED, 73W, Type 3	13	\$2,159	\$1,105	(\$1,069)	\$442	\$120	\$163	\$928	\$3,848
CH-73W-LED-T5-4K (+PC)	Cobrahead, LED, 73W, Type 5	12	\$1,993	\$1,020	(\$834)	\$408	\$111	\$151	\$857	\$3,705
CH-150W-HPS	No Upgrade, Include in Audit	1	\$0	\$0	\$0	\$34	\$2	\$0	\$8	\$44
CH-73W-LED-T2-4K (+PC)	Cobrahead, LED, 73W, Type 2	23	\$3,820	\$1,955	(\$1,839)	\$782	\$212	\$289	\$1,642	\$6,860
CH-400W-HPS	No Upgrade, Include in Audit	4	\$0	\$0	\$0	\$136	\$7	\$0	\$33	\$176
0110KH	No Upgrade	12	\$0	\$0	\$0	\$408	\$20	\$0	\$100	\$528
59000M	No Upgrade	48	\$0	\$0	\$0	\$1,632	\$82	\$0	\$399	\$2,112
Cobrahead Total		256	\$24,565	\$11,305	(\$10,058)	\$8,704	\$1,511	\$1,793	\$11,136	\$48,957
Decorative										
4SC-39W-LED-T2-4K (+PC)	4-Sided Colonial, 39W, LED	886	\$315,385	\$75,310	(\$49,191)	\$30,124	\$13,227	\$19,535	\$105,502	\$509,892
4SC-39W-LED-T5-4K (+PC)	4-Sided Colonial, 39W, LED	340	\$121,028	\$28,900	(\$12,928)	\$11,560	\$5,076	\$7,496	\$40,486	\$201,619
4SC-100W-HPS	No Upgrade, Include in Audit	19	\$0	\$0	\$0	\$646	\$32	\$0	\$158	\$836
Decorative Total		1,245	\$436,414	\$104,210	(\$62,118)	\$42,330	\$18,335	\$27,031	\$146,146	\$712,347
Traffic Signal										
TA-LED-G-12	Traffic Signal, Arrow, 12" - Green	123	\$4,703	\$1,230	(\$52)	\$1,312	\$244	\$297	\$1,811	\$9,544
TA-LED-R-12	Traffic Signal, Arrow, 12" - Red	7	\$268	\$70	(\$1)	\$75	\$14	\$17	\$103	\$545
TA-LED-Y-12	Traffic Signal, Arrow, 12" - Yellow	110	\$4,206	\$1,100	(\$18)	\$1,173	\$218	\$265	\$1,619	\$8,563
TL-LED-G-12	Traffic Signal, Round, 12" - Green	406	\$11,900	\$4,060	(\$129)	\$4,331	\$695	\$798	\$5,067	\$26,722
TL-LED-G-8	Traffic Signal, Round, 8" - Green	12	\$367	\$120	(\$6)	\$128	\$21	\$24	\$154	\$808
TL-LED-R-12	Traffic Signal, Round, 12" - Red	415	\$12,164	\$4,150	(\$120)	\$4,427	\$711	\$816	\$5,179	\$27,327
TL-LED-R-8	Traffic Signal, Round, 8" - Red	12	\$367	\$120	\$0	\$128	\$21	\$24	\$154	\$814
TL-LED-Y-12	Traffic Signal, Round, 12" - Yellow	412	\$12,076	\$4,120	(\$205)	\$4,395	\$706	\$810	\$5,142	\$27,043
TL-LED-Y-8	Traffic Signal, Round, 8" - Yellow	16	\$489	\$160	(\$6)	\$171	\$28	\$32	\$205	\$1,080
OMINLT	No Upgrade, Include in Audit	4	\$0	\$0	\$0	\$43	\$2	\$0	\$10	\$55
HNDSGN	No Upgrade, Include in Audit	181	\$0	\$0	\$0	\$1,931	\$97	\$0	\$472	\$2,499
EMPESD	No Upgrade, Include in Audit	35	\$0	\$0	\$0	\$373	\$19	\$0	\$91	\$483
NTMNTR	No Upgrade, Include in Audit	33	\$0	\$0	\$0	\$352	\$18	\$0	\$86	\$456
Traffic Signal Total		1,766	\$46,540	\$15,130	(\$536)	\$18,837	\$2,792	\$3,083	\$20,092	\$105,939
BOM Total		3,267	\$507,518	\$130,645	(\$72,712)	\$69,871	\$22,638	\$31,908	\$177,375	\$867,244

Control Options

The following tables shows two advanced control options as defined in the previous Design Approach and Standardized Upgrade Plan section of this document. For both options a summary of existing fixture types, material and installation additional costs and any additional savings are provided.

Manual Fixture Controls											
Specified Fixture Type Code	Fixture Watts	Control Fixture Type Code	Fixture Watts	Wattage Selector	Design Watts	Annual Energy Savings	Control Unit Price ¹	Upgrade Fixture Adder	Total Unit Cost	Quantity	Total Control Price
4SC-39W-LED	39	4SC-46W-LED	46	85%	39	\$0	\$16.57	\$0.00	\$16.57	1,226	\$20,311
CH-38W-LED	38	CH-53W-LED	53	72%	38	\$0	\$15.29	\$16.57	\$31.86	9	\$287
CH-73W-LED	73	CH-88W-LED	88	83%	73	\$0	\$15.29	\$22.94	\$38.23	48	\$1,835
CH-106W-LED	106	CH-161W-LED	161	66%	106	\$0	\$15.29	\$1.27	\$16.57	76	\$1,259
Totals						\$0				1,359	\$23,692

1) Control unit price includes field adjustable wattage selector

Network Control System												
Specified Fixture Type Code	Fixture Watts	Control Fixture Type Code	Fixture Watts	Wattage Selector	Design Watts	Annual Energy Savings	SL-C Tariff Savings	Control Unit Price ²	Upgrade Fixture Adder	Total Unit Cost	Quantity	Total Control Price
4SC-39W-LED	39	4SC-46W-LED	46	85%	39	\$0		\$125.76	\$0.00	\$125.76	1,226	\$154,179
CH-38W-LED	38	CH-53W-LED	53	72%	38	\$0		\$125.76	\$16.57	\$142.32	9	\$1,281
CH-73W-LED	73	CH-88W-LED	88	83%	73	\$0		\$125.76	\$22.94	\$148.70	48	\$7,137
CH-106W-LED	106	CH-161W-LED	161	66%	106	\$0		\$125.76	\$1.27	\$127.03	76	\$9,654
SL-C Tariff Savings								\$2,578				\$0
Gateway - Equipment										1,593	3	\$4,779
Gateway - Installation										3,000	3	\$9,000
Totals						\$0.00	\$2,578				1,365	\$186,031

2) Control unit price includes node + 20 years of annual fees (\$2/year) - standard photocell not needed

Financial Analysis & Summary

Payback Analysis Matrix

The payback analysis matrix is provided as a decision-making tool to assess the opportunity of ECMs available and to define a project scope that best meets the needs of the municipality. If a PECO buyback is planned prior to this project being implemented, we show the payback associated with that activity. If the Phase 2 field audit identified differences between the unmetered PECO inventory and what is verified to be existing, those adjustments are reflected below as “PECO Inventory Adjust.” The PECO Inventory Adjust amount will occur for all cobrahead or decorative ECMs, and therefore this amount is included in these ECMs values shown in the table below. A separate payback calculation is made for each ECM as well as for common control alternates to be considered. The full-implementation total includes the total payback calculations if all ECMs are completed.

PECO Baseline Adjustments	Energy Savings/ Year	Maintenance Savings/ Year	Total Operating Savings/ Year	Material Costs	Install Costs	KLS Fees	DVRPC Program Costs	Cost Contingency	Interest Costs	Rebates	Total Project Costs	Payback (Years)	Payback w/o Financing (Years)
Streetlight Adjustment	(\$3,614)	\$0	(\$3,614)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0	0.0
Traffic Signal Adjustment	\$784	\$0	\$784	\$0	\$0	\$0	\$0	\$0	\$0	(\$123)	(\$123)	(0.2)	(0.2)

Typical ECM Combinations	Energy Savings/ Year	Maintenance Savings/ Year	Total Operating Savings/ Year	Material Costs	Install Costs	KLS Fees	DVRPC Program Costs	Cost Contingency	Interest Costs	Rebates	Total Project Costs	Payback (Years)	Payback w/o Financing (Years)
Cobrahead Only ¹	\$877	\$1,371	\$2,248	\$24,565	\$11,305	\$6,664	\$1,409	\$1,793	\$10,638	(\$10,058)	\$46,317	20.6	15.9
Decorative Only ¹	\$18,055	\$6,605	\$24,659	\$436,414	\$104,210	\$42,330	\$18,335	\$27,031	\$146,146	(\$62,118)	\$712,347	28.9	23.0
Traffic Signal Only ¹	\$1,774	\$8,915	\$10,690	\$46,540	\$15,130	\$18,837	\$2,792	\$3,083	\$20,092	(\$659)	\$105,816	9.9	8.0
Cobrahead + Decorative ¹	\$22,546	\$7,976	\$30,521	\$460,978	\$115,515	\$48,994	\$19,745	\$28,825	\$156,784	(\$72,176)	\$758,665	24.9	19.7
Cobrahead + Decorative + Traffic Signals ¹	\$24,320	\$16,891	\$41,211	\$507,518	\$130,645	\$67,831	\$22,536	\$31,908	\$176,876	(\$72,835)	\$864,481	21.0	16.7
Cobrahead + Decorative ¹ + Manual Controls	\$22,546	\$7,976	\$30,521	\$484,671	\$115,515	\$48,994	\$19,745	\$30,009	\$187,447	(\$72,176)	\$814,205	26.7	20.5
Cobrahead + Decorative ¹ + Network Controls	\$25,123	\$7,976	\$33,099	\$633,230	\$129,294	\$48,994	\$19,745	\$37,437	\$396,701	(\$72,176)	\$1,193,225	36.1	24.1

Notes:

- 1) Includes costs and savings of ECM upgrade + PECO baseline adjustments

Cash Flow Analysis

The cash flow analysis shows how the project savings offset project costs, resulting in little to no capital outlay for this project.

Project Cash Flow (No Financing)

Project Summary	
Construction Cost	\$576,493
Buyback Cost	
DSP Fees (KLS)	\$48,994
Program Fees (DVRPC)	\$19,745
Contingency	\$28,825
Total Project Cost	\$674,057
Capital Contribution	\$674,057
Financed Amount	\$0
Loan Rate	0.00%
Loan Term (Years)	0
Loan Payment	#NUM!
Interest Paid	#NUM!

ECM	In Scope
PECO Buyback	No
Cobrahead Lighting	Yes
Decorative Lighting	Yes
Area Lighting	No
Traffic Signals	No
Manual Fixture Controls	Option
Network Control System	Option

Construction	In Scope
Construction Start Date	Oct-19
Construction Duration (calendar days)	41

Period	Energy Cost Savings	Maintenance Cost Savings	Rebates	Total Savings	Capital Contribution	Loan Payment	Balance
Design				\$0	\$38,259		(\$38,259)
Construction				\$0	\$635,798		(\$635,798)
1	\$22,546	\$7,976	\$72,176	\$102,697		\$0	\$102,697
2	\$22,546	\$7,976		\$30,521		\$0	\$30,521
3	\$22,546	\$7,976		\$30,521		\$0	\$30,521
4	\$22,546	\$7,976		\$30,521		\$0	\$30,521
5	\$22,546	\$7,976		\$30,521		\$0	\$30,521
6	\$22,546	\$7,976		\$30,521		\$0	\$30,521
7	\$22,546	\$7,976		\$30,521		\$0	\$30,521
8	\$22,546	\$7,976		\$30,521		\$0	\$30,521
9	\$22,546	\$7,976		\$30,521		\$0	\$30,521
10	\$22,546	\$7,976		\$30,521		\$0	\$30,521
11	\$22,546	\$7,976		\$30,521		\$0	\$30,521
12	\$22,546	\$7,976		\$30,521		\$0	\$30,521
13	\$22,546	\$7,976		\$30,521		\$0	\$30,521
14	\$22,546	\$7,976		\$30,521		\$0	\$30,521
15	\$22,546	\$7,976		\$30,521		\$0	\$30,521
16	\$22,546	\$7,976		\$30,521		\$0	\$30,521
17	\$22,546	\$7,976		\$30,521		\$0	\$30,521
18	\$22,546	\$7,976		\$30,521		\$0	\$30,521
19	\$22,546	\$7,976		\$30,521		\$0	\$30,521
20	\$22,546	\$7,976		\$30,521		\$0	\$30,521
21	\$22,546	\$7,976		\$30,521		\$0	\$30,521
22	\$22,546	\$7,976		\$30,521		\$0	\$30,521
23	\$22,546	\$7,976		\$30,521		\$0	\$30,521
24	\$22,546	\$7,976		\$30,521		\$0	\$30,521
25	\$22,546	\$7,976		\$30,521		\$0	\$30,521
Total	\$563,639	\$199,388	\$72,176	\$835,203	\$674,057	\$0	\$161,146

Project Cash Flow (Financing)

Project Summary	
Construction Cost	\$576,493
Buyback Cost	
DSP Fees (KLS)	\$48,994
Program Fees (DVRPC)	\$19,745
Contingency	\$28,825
Total Project Cost	\$674,057
Capital Contribution	\$0
Financed Amount	\$674,057
Loan Rate	2.08%
Loan Term (Years)	20
Loan Payment	\$41,542
Interest Paid	\$156,784

ECM	In Scope
PECO Buyback	No
Cobrahead Lighting	Yes
Decorative Lighting	Yes
Area Lighting	No
Traffic Signals	No
Manual Fixture Controls	Option
Network Control System	Option

Construction	In Scope
Construction Start Date	Oct-19
Construction Duration (calendar days)	41

Period	Energy Cost Savings	Maintenance Cost Savings	Rebates	Total Savings	Capital Contribution	Loan Payment	Balance
Design				\$0	\$38,259		(\$38,259)
Construction				\$0	(\$38,259)		\$38,259
1	\$22,546	\$7,976	\$72,176	\$102,697		\$41,542	\$61,155
2	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
3	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
4	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
5	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
6	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
7	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
8	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
9	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
10	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
11	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
12	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
13	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
14	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
15	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
16	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
17	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
18	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
19	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
20	\$22,546	\$7,976		\$30,521		\$41,542	(\$11,021)
21	\$22,546	\$7,976		\$30,521		\$0	\$30,521
22	\$22,546	\$7,976		\$30,521		\$0	\$30,521
23	\$22,546	\$7,976		\$30,521		\$0	\$30,521
24	\$22,546	\$7,976		\$30,521		\$0	\$30,521
25	\$22,546	\$7,976		\$30,521		\$0	\$30,521
Total	\$563,639	\$199,388	\$72,176	\$835,203	\$0	\$830,840	\$4,362

Appendix A:

RSLPP Phase Overview

Phase 1: Feasibility: Data-driven analysis of upgrade opportunities resulting in a no-cost Feasibility Study.

- Municipalities received a data-driven, no-cost Feasibility Study showing estimated savings, project costs, rebates and financial payback. This study is developed by KLS using data, information, and input provided by the municipality.
- **Municipalities used the Feasibility Study as a tool to decide whether to proceed to Phase 2 and contract with KLS for Project Development Services.**
- The RSLPP Project Team provides a contract form and resolution for municipalities to proceed to Phase 2.

Phase 2: Project Development: Field audits, design and analysis resulting in a final design project proposal.

- KLS conducted field audits of the municipality's existing lighting system showing GPS location and attributes of each fixture. KLS also conducted a comprehensive and standardized design of upgraded lighting system.
- KLS developed and DVRPC issues solicitations and contracts for materials, distributor, and installation contractor for the purpose of arranging cooperative purchasing agreements that municipalities are able to piggyback off of.
- The RSLPP Project Team organized a pool of financing for municipalities who wish to finance their projects.
- KLS prepared final design proposal showing forecasted savings, final project costs, rebates, and financial payback.
- **Municipalities use the Final Design Proposal as a tool to decide whether to proceed to Phase 3, Construction.**
- The RSLPP Project Team provides a contract form and resolution for contracting between municipality and installation contractor for construction (the construction contract). Municipalities piggyback off of DVRPC's installation contract for construction.
- Municipalities that finance participate in the pool of financing arranged by the RSLPP.

Phase 3: Construction: Comprehensive Installation Services and Project Management of Installation including reporting and issue resolution during construction.

- Construction, including the procurement of all equipment, is provided by the RSLPP selected installation contractor according to the municipality's construction contract.
- KLS provides robust project management services ensuring consistent communication of progress and issue resolution.
- KLS manages the municipality's PECO Bill Updates and the applicable rebate application processes.

Phase 4: Post Construction Operations and Maintenance Confirmation of project savings and strategies for on-going maintenance.

- KLS provides the municipalities strategies for maintaining new system and on-going standardization, verification of project savings, and (if desired) prepare and/or update municipality lighting ordinances.

Appendix B:

Project Assumptions

The following assumptions were used in the development of this Project Specification and Proposal:

1) Energy Use

a. Un-metered:

i. **Streetlights:** Energy use for un-metered streetlight service is calculated by PECO using the following algorithm:

1. $\text{kWh} = \text{Billed Wattage of fixture} \times \text{quantity of fixture} \times 4092 \text{ (annual operating hours)}/1000$

ii. **Traffic Signals:** Energy use for un-metered traffic signal service is calculated by PECO using the following algorithm:

1. $\text{kWh} = \text{Billed Wattage of fixture} \times \text{quantity of fixture} \times \text{annual operating hours (yellow} = 175.2 \text{ hours; green} = 3766.8 \text{ hours; red} = 4819 \text{ hours)}/1000$.

b. **Metered:** Energy use for metered fixtures is calculated using the estimated wattage of each fixture X annual operating hours (4092 hours assumed for all metered streetlight fixtures and area lighting, while a lower number of hours may be used for other outdoor lighting types if provided or indicated by the municipality)/1000.

2) Energy Costs:

a. Across the entire RSLPP, energy costs were estimated according to the following PECO rates included in PECO's Current Electric Tariff effective July 1, 2019.

i. SL-E, SL-S, SL-C, TSLs, and GS.

b. KLS used the generation supply rate listed for each PECO account on the utility bills supplied by the municipality.

3) Maintenance Cost Savings

a. Average annual maintenance expenses were modeled for both the existing and proposed fixture types.

i. Maintenance expenses are based on the probability a component (e.g. lamp, ballast/driver, fixture, photocell) will fail multiplied by the material and labor replacement cost. Failure probability is based on the annual operating hours of a component divided by the component's published rated or expected life.

b. Use of average annual maintenance expenses assumes that both the existing and new lighting systems have a standard distribution of fixture and component ages. Average annual maintenance expenses for proposed LED fixtures were further reduced by 50% to reflect a 1-year labor warranty, a 10-year parts warranty and the expected life of a new fixture and its components.

4) Project rebates: There are two rebate types available to municipalities in the RSLPP:

a. **PECO Smart Ideas:** Through Phase 3 of Act 129, PECO's offers lighting rebates to municipal customers. These rebates vary from \$25 - \$75 per streetlight and vary from \$10 - \$60 for metered area lighting depending on the watts reduced by each fixture conversion. Rebates have been estimated in Phase 1 based on the scope of work included in this Feasibility Study. Municipalities that proceed to Phase 2 will have a pre-application submitted on their behalf by the KLS to PECO based on the scope of work defined in the municipality's Final Design Proposal. Submitting a pre-application will "reserve" rebates for municipalities that proceed to Phase 3, construction.

- b. **PJM:** PJM, the Regional Transmission Operator for this region offers rebates for outdoor lighting projects through its Capacity Market. Energy efficiency projects can receive PJM Capacity Market rebates for the first four years that a project is installed based on the kW reductions of the project, and the price/kW of this rebate is determined by a “forward auction” in each utility territory within PJM. The current rate for these incentives in PECO territory ranges from \$18.70-\$28.90 per kW reduced depending on the year. The PJM Capacity Market rebate has been estimated based on the scope of work defined in this Feasibility Study, the associated kW reduction and a \$15.00 per kW rebate. Municipalities that proceed to Phase 3 (Construction) of the RSLPP will have the opportunity to have receive this rebate through a RSLPP-arranged aggregator.

5) Project Contingency

- a. For project budgeting we used a **5%** contingency.

6) Material, Distributor, and Installation Costs

- a. All material and Installation Costs shown in this Final Project Specification and Proposal FPSP were the result of the procurement process established for Round 2 of the RSLPP through which KLS developed and DVRPC issued Request for Proposals on behalf of municipalities participating in the RSLPP for Manufacturer Product Solutions (materials), Distribution Partner Services (distributor), and installation contractor. For more information on these solicitations, please visit DVRPC.org/consultant.

7) Financing

- a. Financing assumes use of the most recently published rates from DelVal. For this proposal a **20-year** term and a **2.08%** fixed rate was assumed. The rate is the 3-month running average for the specified term.

Appendix C:

Project Summary Bill of Material

The Project Summary Bill of Material represents the pricing obtained through the RSLPP procurement process. Material Unit Prices include negotiated manufacturer costs, distributor markup and contractor markup.

Fixture Type Code	Manufacturer	Part #	Fixture Type Description	Fixture Quantity	Fixture Unit Price	Fixture Total Cost
Cobrahead						
CH-106W-LED-T2-4K (+PC)	Signify	RFM-108W48LED4K-G2-R2M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 106W, Type 2	10	\$203.04	\$2,030
CH-106W-LED-T3-4K (+PC)	Signify	RFM-108W48LED4K-G2-R3M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 106W, Type 3	58	\$203.04	\$11,776
CH-106W-LED-T5-4K (+PC)	Signify	RFM-108W48LED4K-G2-R5-UNV-DMG-RCD7-GY2	Cobrahead, LED, 106W, Type 5	8	\$203.04	\$1,624
CH-38W-LED-T3-4K (+PC)	Signify	RFS-35W16LED4K-G2-R3M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 38W, Type 3	7	\$129.12	\$904
CH-38W-LED-T5-4K (+PC)	Signify	RFS-35W16LED4K-G2-R5-UNV-DMG-RCD7-GY2	Cobrahead, LED, 38W, Type 5	2	\$129.12	\$258
CH-73W-LED-T3-4K (+PC)	Signify	RFM-72W32LED4K-G2-R3M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 73W, Type 3	13	\$166.08	\$2,159
CH-73W-LED-T5-4K (+PC)	Signify	RFM-72W32LED4K-G2-R5-UNV-DMG-RCD7-GY2	Cobrahead, LED, 73W, Type 5	12	\$166.08	\$1,993
CH-73W-LED-T2-4K (+PC)	Signify	RFM-72W32LED4K-G2-R2M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 73W, Type 2	23	\$166.08	\$3,820
Cobrahead Total				133		\$24,565
Decorative						
4SC-39W-LED-T2-4K (+PC)	Acuity	247L P40 AS 40K R2 AY	4-Sided Colonial, 39W, LED	886	\$355.97	\$315,385
4SC-39W-LED-T5-4K (+PC)	Acuity	247L P40 AS 40K R5 AY	4-Sided Colonial, 39W, LED	340	\$355.97	\$121,028
Decorative Total				1,226		\$436,414
Traffic Signal						
TA-LED-G-12	Leotek	TSL-12GA-IL6-A1-P3	Traffic Signal, Arrow, 12" - Green	123	\$38.23	\$4,703
TA-LED-R-12	Leotek	Leotek Part #	Traffic Signal, Arrow, 12" - Red	7	\$38.23	\$268
TA-LED-Y-12	Leotek	TSL-12YA-IL6-A1-P3	Traffic Signal, Arrow, 12" - Yellow	110	\$38.23	\$4,206
TL-LED-G-12	Leotek	TSL-12G-LX-IL6-A1-P3	Traffic Signal, Round, 12" - Green	406	\$29.31	\$11,900
TL-LED-G-8	Leotek	TSL-08G-LX-IL6-A1-P3	Traffic Signal, Round, 8" - Green	12	\$30.59	\$367
TL-LED-R-12	Leotek	TSL-12R-LX-IL6-A1-P3	Traffic Signal, Round, 12" - Red	415	\$29.31	\$12,164
TL-LED-R-8	Leotek	TSL-08R-LX-IL6-A1-P3	Traffic Signal, Round, 8" - Red	12	\$30.59	\$367
TL-LED-Y-12	Leotek	TSL-12Y-LX-IL6-A1-P3	Traffic Signal, Round, 12" - Yellow	412	\$29.31	\$12,076
TL-LED-Y-8	Leotek	TSL-08Y-LX-IL6-A1-P3	Traffic Signal, Round, 8" - Yellow	16	\$30.59	\$489
Traffic Signal Total				1,513		\$46,540
BOM Total				2,872		\$507,518

Appendix D:

Project Schedule of Installation Values

The Project Schedule of Installation Values represents the pricing obtained through the RSLPP procurement process. Installation Unit Prices are an all-inclusive turnkey unit price including installation contractor prevailing wage costs, equipment costs, bonding costs, overhead and profit.

Fixture Type Code	Manufacturer	Part #	Fixture Type Description	Fixture Quantity	Installation Unit Price	Fixture Total Cost	Construction Duration (Working Days)
Cobrahead							
CH-106W-LED-T2-4K (+PC)	Signify	RFM-108W48LED4K-G2-R2M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 106W, Type 2	10	\$85	\$850	1
CH-106W-LED-T3-4K (+PC)	Signify	RFM-108W48LED4K-G2-R3M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 106W, Type 3	58	\$85	\$4,930	1
CH-106W-LED-T5-4K (+PC)	Signify	RFM-108W48LED4K-G2-R5-UNV-DMG-RCD7-GY2	Cobrahead, LED, 106W, Type 5	8	\$85	\$680	1
CH-38W-LED-T3-4K (+PC)	Signify	RFS-35W16LED4K-G2-R3M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 38W, Type 3	7	\$85	\$595	1
CH-38W-LED-T5-4K (+PC)	Signify	RFS-35W16LED4K-G2-R5-UNV-DMG-RCD7-GY2	Cobrahead, LED, 38W, Type 5	2	\$85	\$170	1
CH-73W-LED-T3-4K (+PC)	Signify	RFM-72W32LED4K-G2-R3M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 73W, Type 3	13	\$85	\$1,105	1
CH-73W-LED-T5-4K (+PC)	Signify	RFM-72W32LED4K-G2-R5-UNV-DMG-RCD7-GY2	Cobrahead, LED, 73W, Type 5	12	\$85	\$1,020	1
CH-73W-LED-T2-4K (+PC)	Signify	RFM-72W32LED4K-G2-R2M-UNV-DMG-RCD7-GY2	Cobrahead, LED, 73W, Type 2	23	\$85	\$1,955	1
Cobrahead Total				133		\$11,305	8
Decorative							
4SC-39W-LED-T2-4K (+PC)	Acuity	247L P40 AS 40K R2 AY	4-Sided Colonial, 39W, LED	886	\$85	\$75,310	15
4SC-39W-LED-T5-4K (+PC)	Acuity	247L P40 AS 40K R5 AY	4-Sided Colonial, 39W, LED	340	\$85	\$28,900	6
Decorative Total				1,226		\$104,210	21
Traffic Signal							
TA-LED-G-12	Leotek	TSL-12GA-IL6-A1-P3	Traffic Signal, Arrow, 12" - Green	123	\$10	\$1,230	1
TA-LED-R-12	Leotek	Leotek Part #	Traffic Signal, Arrow, 12" - Red	7	\$10	\$70	1
TA-LED-Y-12	Leotek	TSL-12YA-IL6-A1-P3	Traffic Signal, Arrow, 12" - Yellow	110	\$10	\$1,100	1
TL-LED-G-12	Leotek	TSL-12G-LX-IL6-A1-P3	Traffic Signal, Round, 12" - Green	406	\$10	\$4,060	3
TL-LED-G-8	Leotek	TSL-08G-LX-IL6-A1-P3	Traffic Signal, Round, 8" - Green	12	\$10	\$120	1
TL-LED-R-12	Leotek	TSL-12R-LX-IL6-A1-P3	Traffic Signal, Round, 12" - Red	415	\$10	\$4,150	3
TL-LED-R-8	Leotek	TSL-08R-LX-IL6-A1-P3	Traffic Signal, Round, 8" - Red	12	\$10	\$120	1
TL-LED-Y-12	Leotek	TSL-12Y-LX-IL6-A1-P3	Traffic Signal, Round, 12" - Yellow	412	\$10	\$4,120	3
TL-LED-Y-8	Leotek	TSL-08Y-LX-IL6-A1-P3	Traffic Signal, Round, 8" - Yellow	16	\$10	\$160	1
Traffic Signal Total				1,513		\$15,130	15
Schedule Total <i>(assumes Traffic Signal work completed in parallel with fixture upgrades)</i>				2,872		\$130,645	29

Appendix E:

DSP & Program Fees Breakdown

Design Service Professional (KLS) Unit Pricing & DVRPC Program Fees

DVRPC conducted a comprehensive RFP process to identify and select a design services professional to support all four Phases of the RSLPP. Municipalities are able to “piggy-back” off the DVRPC’s cooperative purchasing agreement for DSP services. The table below not only defines the final DSP unit priced fee structure but also shows the assumed volume for your project and the total associated fees. The finance resolution provided for RSLPP municipalities who wish to proceed to Phase 2, Project Development, includes provisions for reimbursement of Project Development Phase fees with a financing package put in place for the Construction Phase.

DSP Unit Price Schedule and Payment Milestones

DSP Service Item	KLS Unit Price (Fee) Schedule	KLS Billing Milestones	Fixture & Signal Quantity	KLS Fees	DVRPC Program Fees	Total KLS & DVRPC Fees
Project Development (Phase II)						
Field Audit	\$9/Fixture	100% at Completion of audit (if less than 1 month); Otherwise on monthly auditing progress	1,501	\$13,509	\$675	\$14,184
Field Audit (Traffic Signals)	\$8/Signal (not lamp)		1,766	\$4,709	\$235	\$4,945
Mapping	\$1/Fixture or Signal		3,267	\$2,090	\$104	\$2,194
Design	\$7/Fixture or Signal	50% at Preliminary Design Review; 50% at Final Design Review	1,501	\$10,507	\$525	\$11,032
Design (Traffic Signals)	\$6/Signal (not lamp)		1,766	\$3,532	\$177	\$3,709
Utility bill update & rebate processes	\$1/Fixture or Signal	50% at Final Utility Bill Update; 50% at Final Rebate Submittal	3,267	\$2,090	\$104	\$2,194
Project Development Sub-Total				\$36,437	\$1,822	\$38,259
Construction Project Management (Phase III)						
Project Management Services	\$10/Fixture or Signal	20% at Pre-Construction Meeting; Remainder on Monthly Installation Progress Billing	3,267	\$20,897	\$18,340	\$39,236
PECO Buyback	\$5/Fixture (with max fee of \$5,000 and min fee of \$1,000)	At Buyback Completion		\$0	\$0	\$0
Field deployable installation data capture	\$3/Fixture or Signal	Monthly Installation Progress Billing	3,267	\$6,269	\$313	\$6,582
Project Management Sub-Total				\$27,166	\$18,653	\$45,819
Post-Construction Services (Phase IV)						
Project annual Energy and Operational Savings Report	\$1/Fixture or Signal	100% at Report Delivery	3,267	\$2,090	\$104	\$2,194
Operations and Maintenance Plan for a municipality’s new LED system.	\$1/Fixture or Signal	100% at Plan Delivery	3,267	\$2,090	\$104	\$2,194
Development of Operation and Maintenance Manual	\$1/Fixture or Signal	100% at Manual Delivery	3,267	\$2,090	\$104	\$2,194
Development or update of a lighting ordinance	\$1,000/municipality (minimum)	Estimated Cost Between \$1,000 - \$10,000	0	\$0	\$0	\$0
Post-Construction Sub-Total				\$6,269	\$313	\$6,582
Total Fees				\$69,871	\$20,788	\$90,660

DVRPC Program Fees

The following Program Fees have been established by DVRPC to allow DVRPC to recoup the upfront costs DVRPC has incurred for program development, program management, and for the development and issuance of contracts and solicitations associated with material, distributor, installation contractor, and finance. These fees are reflected throughout this Feasibility Study as “Program Fees”:

- 5% of DSP Total Fees
- Up to 3% of Construction Costs (Material & Installation costs only).
 - 3% has been used as a conservative estimate for this Feasibility Study.

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Consider Award of Bid- Leaf Waste Collection

MEETING DATE: August 26, 2019 ITEM NUMBER: #9.

MEETING/AGENDA: ACTION NONE

REASON FOR CONSIDERATION: Operational: Policy: Discussion: xx Information:

INITIATED BY: Stacy Crandell BOARD LIAISON: Matthew W. Quigg
Assistant to the Township Manager Board Liaison to Environmental Advisory Committee

BACKGROUND:

Staff received and opened bids on August 13, 2019 for the Leaf & Yard Waste Collection. The bids were reviewed. Attached is the bid tabulation sheet. The Bid Specifications authorizes the Board of Supervisors to award either a one, two, or three year contract. Depending upon the option the Board of Supervisors decides to award, the lowest bidder would differ.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

On July 22, 2019, the Board of Supervisors authorized the advertisement of the bid for Residential Leaf and Yard Waste Collection and Disposal Contract.

ALTERNATIVES/OPTIONS:

Option 1: Award a one-year contract to Republic Services in the amount of \$24,500.

Option 2: Award a two-year contract to Advanced Disposal in the amount of \$50,334 (\$25,167/year)

Option 3: Award a three-year contract to Advanced Disposal in the amount of \$77,442.24 (\$25,814.08)

BUDGET IMPACT:

The cost for this was included in the 2019 budget and will be discussed and budgeted for the 2020 Budget Workshop sessions. The amount regardless of the option will be slightly less than the previous contract.

RECOMMENDATION:

Township Staff recommends awarding the bid to Republic Service for the one-year contract in the amount of \$24,500.

MOTION/RESOLUTION:

BE IT RESOLVED by the Board of Supervisors of Montgomery Township that we hereby award the bid for Leaf and Yard Waste Collection and Disposal Services by choosing option #_____.

MOTION: _____

SECOND: _____

ROLL CALL:

Tanya C. Bamford	Aye	Opposed	Abstain	Absent
Candyce Fluehr Chimera	Aye	Opposed	Abstain	Absent
Jeffrey W. McDonnell	Aye	Opposed	Abstain	Absent
Matthew W. Quigg	Aye	Opposed	Abstain	Absent
Michael J. Fox	Aye	Opposed	Abstain	Absent

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

Leaf and Yard Waste Collection and Disposal

Bid Tabulations

August 13, 2019

Bidder	Year 1	Year 2	Total- Year 1- 2	Year 3	Total- Year 1-3
Republic Services	\$24,500	\$25,235.00/year	\$50,470	\$25,992/year	\$77,976
J.P. Mascaro & Sons	\$31,236	\$31,548/year	\$63,096	\$31,916/year	\$95,748
Advanced Disposal	\$24,541.20	\$25,167/year	\$50,334	\$25,814.08/year	\$77,442.24

Stacy Crandell

From: mdenatale@mainlinemedianews.com on behalf of TheReporterOnline Legals
<legals@thereporteronline.com>
Sent: Tuesday, July 23, 2019 9:52 AM
To: Stacy Crandell
Subject: Re: Legal Advertising - Leaf Waste Bid

the following notice has been scheduled to run in the Reporter 7/24 and 7/31 the township will be billed \$990.32

Have a great day

MONTGOMERY TOWNSHIP

NOTICE TO BIDDERS

Sealed bids will be received at the Montgomery Township Building, 1001 Stump Rd. Montgomeryville, PA 18936, until 10:00 AM on August 13, 2019. The bids shall be publicly opened and read aloud at 10:00 AM on the same day, for the following:

RESIDENTIAL LEAF AND YARD WASTE COLLECTION AND DISPOSAL FOR MONTGOMERY TOWNSHIP

Bid Specification, Bid Proposal Response Forms and Instructions to Bidders may be obtained at the Township Building, between 8:30 AM and 4:30 PM, Monday through Friday.

Bid shall be accompanied by a bid deposit in the form of a Certified Check or Bid Bond, in an amount not less than ten percent (10%) of the Bid and made payable to the Montgomery Township Board of Supervisors.

The successful bidder will be required to furnish separate performance bonds with corporate surety and/or binding letter of intent issued by companies authorized to do business in the Commonwealth of Pennsylvania, as identified in the Bid Specification, to secure the faithful performance

and maintenance of the Bid Specification.

Bid shall be enclosed in a sealed envelope, marked on the outside

"BID SPECIFICATION RESIDENTIAL LEAF AND YARD WASTE COLLECTION AND DISPOSAL"

It shall be the responsibility of the bidder to thoroughly familiarize themselves with the work outlined in the Bid Specification.

The Board of Supervisors reserves the right to reject any or all bids, to waive informalities, or to take such action as it may deem to be in the best interest of the Township and as may be permitted by law.

Prior to awarding the Bid Specification, bids may be held by the Township for a period not to exceed sixty (60) days from the date of the bid opening for the purpose of reviewing the Bid Proposal Responses and investigation of bidder qualifications. During this period, no bid may be withdrawn.

MONTGOMERY TOWNSHIP

Lawrence J. Grogan
Township Manager
LAN 7/24, 7/31 1-a

On Tue, Jul 23, 2019 at 9:23 AM Stacy Crandell <scrandell@montgomerytwp.org> wrote:

Good Morning,

Could you please advertise the attached ad for July 24th and July 31st Edition of the newspaper?

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Consider Approval of Out of State Training-Police Department

MEETING DATE: July 24, 2019 ITEM NUMBER: #10.

MEETING/AGENDA: WORK SESSION ACTION **XX** NONE

REASON FOR CONSIDERATION: Operational: **XX** Policy: Discussion: Information:

INITIATED BY: J. Scott Bendig Chief of Police  BOARD LIAISON: Michael J. Fox Chairman, Board of Supervisors

BACKGROUND:

The United States Police Canine Association (USPCA) Philadelphia Region 6 is hosting their 2019 Police Dog 1 Regional Field Trials for police canine teams from Friday, September 27 through Sunday, September 29, 2019 at the James T. Vaughn Correctional Center in Smyrna, Delaware.

The Police Dog 1 field trial is the proficiency standard used by the USPCA for police canines. Canines teams are evaluated in areas of obedience, evidence detection, agility, suspect search, criminal apprehension, and handler protection. It is recommended that Sergeant Hart, Officer Rose, Officer Schreiber, and Officer McGuigan be authorized to attend this certification/training.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

None.

ALTERNATIVES/OPTIONS:

None.

BUDGET IMPACT:

The cost for the trials is approximately \$600.00 for all four officers, to include registration and accommodations. Funding for this training is available in the 2019 Approved Final Budget-Police Meetings and Conferences.

RECOMMENDATION:

Approve the out of state training request for Sergeant Hart, Officer Rose, Officer Schreiber, and Officer McGuigan.

MOTION/RESOLUTION:

BE IT RESOLVED by the Board of Supervisors of Montgomery Township that we hereby approve the request for Sergeant Hart, Officer Rose, Officer Schreiber, and Officer McGuigan to attend The USPCA 2019 Police Dog 1 Regional Field Trials from from Friday, September 27 through Sunday, September 29, 2019 at the James T. Vaughn Correctional Center in Smyrna, Delaware.

MOTION: _____ SECOND: _____

ROLL CALL:

Tanya C. Bamford	Aye	Opposed	Abstain	Absent
Candyce Fluehr Chimera	Aye	Opposed	Abstain	Absent
Jeffrey W. McDonnell	Aye	Opposed	Abstain	Absent
Matthew W. Quigg	Aye	Opposed	Abstain	Absent
Michael J. Fox	Aye	Opposed	Abstain	Absent

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.



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A Professional Law Enforcement Canine Training and Certifying Association

United States Police Canine Association

REGION
6

Upcoming Events :::

Police Dog 1 Certification

Location: James T. Vaughn Correctional Center, 1181 Paddock Road, Smyrna, Delaware 19977

Date: September 27th – 29th, 2019

Fee: \$55.00 for Region #6 members, \$75.00 for all other USPCA Members.

Late Fee: \$85.00 for all, if registration is not postmarked by September 15th, 2018

MUST BE A USPCA MEMBER TO ATTEND CERTIFICATION

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Consider Authorization of Advertisement for a Public Hearing –Intermunicipal Liquor License Transfer #LL-19-06 – Assi Market – 1222 Welsh Road

MEETING DATE: August 26, 2019

ITEM NUMBER: #11.

MEETING/AGENDA: WORK SESSION ACTION XX NONE

REASON FOR CONSIDERATION: Operational: XX Information: Discussion: Policy:

INITIATED BY: Bruce Shoupe
Director of Planning and Zoning

BOARD LIAISON: Michael J. Fox
Chairman

BACKGROUND:

Attached is an from John J. McCreesh III requesting a liquor license transfer for Assi Market at 1222 Welsh Road, Assi Plaza Shopping Center. This is an intermunicipal transfer of a liquor license. It is required that a public hearing be held on this application within 45 days or by September 27, 2019, unless the applicant agrees to an extension of the time limit.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT: NONE

PREVIOUS BOARD ACTION: NONE

ALTERNATIVES/OPTIONS:

The Board could set a date for a public hearing to discuss this application. Or the Board could choose not to set a hearing date.

BUDGET IMPACT: NONE

RECOMMENDATION:

This matter is on the agenda for your consideration to set a date for a public hearing. It is recommended that a hearing be set for Monday, September 23, 2019.

MOTION/RESOLUTION:

The resolution is attached.

ROLL CALL:

MOTION: _____ SECOND: _____ VOTE: _____

Tanya C. Bamford	Aye	Opposed	Abstain	Absent
Candyce Fluehr Chimera	Aye	Opposed	Abstain	Absent
Jeffrey W. McDonnell	Aye	Opposed	Abstain	Absent
Matthew W. Quigg	Aye	Opposed	Abstain	Absent
Michael J. Fox	Aye	Opposed	Abstain	Absent

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

Resolution #

BE IT RESOLVED by the Board of Supervisors of Montgomery Township that we hereby set Monday, September 23, 2019, after 7:00 p.m., in the Township Building, as the date, time and place for a Public Hearing for an Intermunicipal Liquor License Transfer for Assi Market located at 1222 Welsh Road, Assi Plaza Shopping Center.

BE IT FURTHER RESOLVED that the Township Solicitor is authorized to advertise for this public hearing.

MOTION BY:

SECOND BY:

VOTE:

DATE:

xc: Applicant, F. Bartle, B. Shoupe, M. Gambino, Minute Book, Resolution File, File

Law Offices

McCreesh, McCreesh, McCreesh & Cannon

7053 Terminal Square
Upper Darby, Pennsylvania 19082

John J. McCreesh, Jr. (1942-1977)
John J. McCreesh, III
John J. McCreesh, IV*
Frances J. Cannon
*LL. M in Taxation

email-john@mccreeshlaw.com
email-johniv@mccreeshlaw.com
email-francannon@mccreeshlaw.com

610-734-2160
FAX 610-734-2165

August 7, 2019

Board of Supervisors
Montgomery Township
1001 Stump Road
Montgomeryville, PA 18936

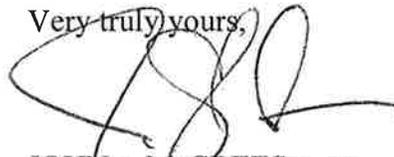
RE: Assi Plaza, Inc.
Our File No. 15-110

Gentlemen:

Enclosed herewith find Petition for Approval of an Inter-Municipal Transfer of Liquor License into Montgomery Township together with Township Application.

Kindly file same and notify me as to the time and place of hearing.

Very truly yours,



JOHN J. McCREESH, III

JMc/ma
Enclosure

John J. McCreesh, III, Esquire
Attorney I.D. Number 04761
7053 Terminal Square
Upper Darby, PA 19082
(610) 734 – 2160

IN RE: ASSI PLAZA, INC.
Application to Transfer Liquor License
Into Montgomery Township

Petitioner

BEFORE THE BOARD OF
SUPERVISORS, TOWNSHIP OF
MONTGOMERY, MONTGOMERY
COUNTY, COMMONWEALTH OF
PENNSYLVANIA

PETITION FOR APPROVAL OF AN INTER-MUNICIPAL TRANSFER OF A
LIQUOR LICENSE INTO MONTGOMERY TOWNSHIP

1. The petitioner is ASSI PLAZA, INC. a Corporation authorized to do business in Pennsylvania with an address at 122 WELSH ROAD, NORTH WALES, PENNSYLVANIA 19454.
2. The respondent is the Board of Supervisors of Montgomery Township, Montgomery County, Pennsylvania with offices at 1001 Stump Road, Montgomeryville, PA 18936.
3. Petitioner is respectfully requesting an inter-municipal transfer of a Liquor License pursuant to section 4-461 of the Liquor Code, 47 P.S. §4-461.
4. Petitioner has entered into an agreement to purchase a Restaurant Liquor License which is currently located in Pottstown, Pennsylvania.
5. The Petitioner will present all required application information and fees to the Pennsylvania Liquor Control Board in Harrisburg if the Township approves this petition.
6. Petitioner respectfully requests that Montgomery Township consider an inter-municipal transfer for a restaurant to be operated at 122 WELSH ROAD, NORTH WALES, PA 19454.
7. The petitioner will be a tenant at the location, if the Petition is approved.
8. Petitioner avers that the occupancy of the new restaurant and the conducting of a lawful and proper business will be an asset to the community and spur additional development in the area.

9. Petitioner is prepared, at a public hearing to answer any and all questions concerning the ownership, operation and details of this proposed application and transaction.

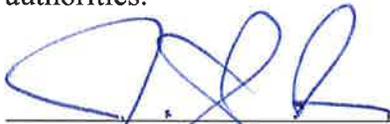
Respectfully submitted,



JOHN J. MCCREESH, III, ESQUIRE
Attorney for Petitioner
ASSI PLAZA, INC.

VERIFICATION

I, JOHN J. McCREESH, III, attorney for Petitioner, Assi Plaza, Inc., verify that the statements made in the forgoing Petition are true and correct to the best of my knowledge, information and belief. I understand that false statements made herein are subject to the penalties of 18 Pa. C.S.A. § 4904 relating to unsworn falsification to authorities.



JOHN J. McCREESH, III
Attorney for Petitioner

Dated

8/1/19

John J. McCreesh, III, Esquire
Attorney I.D. Number 04761
7053 Terminal Square
Upper Darby, PA 19082
(610) 734 – 2160

IN RE: ASSI PLAZA, INC.
Application to Transfer Liquor License
Into Montgomery Township

Petitioner

BEFORE THE BOARD OF
SUPERVISORS, TOWNSHIP OF
MONTGOMERY, MONTGOMERY
COUNTY, COMMONWEALTH OF
PENNSYLVANIA

Order

AND NOW, to wit, this day of , 2019, it is hereby **ORDERED** and **DECREED** that the Petition for an Inter-Municipal Transfer of Restaurant Liquor License from Chendy Corporation, Restaurant Liquor License R-11875 from Pottstown Borough for the premises located at 122 Welsh Road, North Wales, Montgomery Township to ASSI PLAZA, INC. after public hearing and review of the Application is **APPROVED**.

The Board of Supervisors of Montgomery Township finds that the transfer will not adversely effect the welfare, health, peace and morals of the municipality or its residents.

BOARD OF SUPERVISORS OF MONTGOMERY TOWNSHIP

John J. McCreesh, III, Esquire
Attorney I.D. Number 04761
7053 Terminal Square
Upper Darby, PA 19082
(610) 734 – 2160

IN RE: ASSI PLAZA, INC.
Application to Transfer Liquor License
Into Montgomery Township

Petitioner

BEFORE THE BOARD OF
SUPERVISORS, TOWNSHIP OF
MONTGOMERY, MONTGOMERY
COUNTY, COMMONWEALTH OF
PENNSYLVANIA

RESOLUTION

AND NOW, to wit, this day of , 2019 the Board of Supervisors of Montgomery Township, Montgomery County, Commonwealth of Pennsylvania after proper Notice and Public Hearing and after review of the testimony and relevant criteria, it is hereby **RESOLVED** and **ORDAINED** that the petition of **ASSI PLAZA, INC.**, for an Inter-Municipal Transfer of Restaurant Liquor License from Chendy Corporation, Restaurant Liquor License R-11875 from Pottstown Borough for the premises located at **122 WELSH ROAD, NORTH WALES, PA 19454**, Montgomery Township is **APPROVED**.

The Board of Supervisors of Montgomery Township finds that the transfer will not adversely effect the welfare, health, peace and morals of the municipality or its residents.

BOARD OF SUPERVISORS OF MONTGOMERY TOWNSHIP

PUBLIC NOTICE

The Board of Supervisors of the Montgomery Township will conduct a hearing on

at _____ P.M. in the Municipal Building at 1001 Stump Road,
Montgomeryville, PA 18936 to hear the following Petition:

1. The Petition of ASSI PLAZA, INC. for approval of an inter-municipal transfer of a Restaurant Liquor License from Pottstown Borough to 122 Welsh Road, North Wales, Montgomery Township, Montgomery County, PA. The purpose of this public hearing is for receiving comments and recommendations of interested individuals residing within the municipality concerning the Applicant's intent to transfer a liquor license into the municipality. The municipality must determine whether the request would adversely effect the welfare, health, peace and morals of the municipality or its residents.

Proposed Location of the License to be transferred:

Street Address: 122 Welsh Road, North Wales, PA

Parcel Number: _____

Block and Unit Number: _____

Name of the Establishment proposed to be licensed:

Assi Plaza, Inc.

Type of Liquor License to be transferred:

Restaurant Liquor

Anticipated date for license transfer and commencement of operations pursuant to liquor license:

October 1, 2019

List all locations owned or operated by the applicant which currently hold a liquor license. (Use separate sheet if necessary.) Provide name, address and liquor license number of those locations.

None.

Has the applicant or anyone associated with these locations ever been cited for liquor law violations? Yes _____ No X

If yes, please explain: (use separate sheet if necessary)

Has applicant had a request for a liquor license transfer denied?

Yes _____ No X

If yes, please explain: (use separate sheet if necessary)

Has the applicant, or if a corporation, any officer or director of the corporation, or if a partnership or association, any member or partner of the partnership or association, been convicted or found guilty of a felony within a period of five years?

Yes _____ No X

If yes, please explain: (use separate sheet if necessary)

Provide the name, address (if applicable) and distance from the proposed premise to the following:

Nearest Licensed Establishments: GRB Montgomeryville, LLC R-19407 100';
Wegman's R-9258 500'; Bertucci's R-13777 1000'; Barbeque Integrated
Inc. R-17262; Blue Mountain Wines 100'

Nearest Schools: Gwyn-Nor Elementary, 139 Hancock Rd., North Wales, PA
Malvern School of Montgomeryville, 1221 Stump Rd., North Wales, PA
Goddard School, 520 Stump Road, Montgomeryville, PA

Nearest Public Playgrounds: Windelstray Park, 1147 Kenas Rd., North Wales, PA

Nearest Churches: Montgomery Square Methodist Church, North Wales, PA
Church of Christ, 3000 North Wales Road, North Wales, PA

Sanctuary United Methodist Church, 1346 E. Prospect Rd., North Wales, PA

Nearest Charitable Institutions: ALS Association of Greater Philadelphia,
321 Norristown Road, Lower Gynwdd, PA

Nearest Hospitals: Lansdale Hospital, 109 Medical Campus Drive,
Lansdale, PA

Provide a list of existing liquor licenses in Montgomery Township which are inactive, in safekeeping and/or are for sale. Include the name, address and telephone number of the contact person for each. (use separate sheet if necessary)

TGI Fridays R-9470; Firebirds of North Wales R-2264;

Millers Ale House R-15155

Gregory A. Szallar, Esquire, Flaherty & Hara, 610 Smithfield Street,
Suite 300, Pittsburg, PA 15222

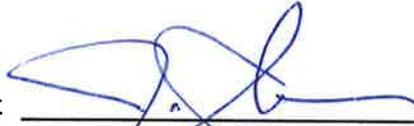
I hereby swear that all of the information provided on this application is true and correct to the best of my knowledge and belief. Further, I understand that the presentation of false information will subject me to possible arrest, fine and imprisonment.

Attached to this application is the required fee of \$1,500.00 and escrow of \$1,500.00.

Signed: _____

Printed Name: _____

Date: _____



John J. McCreesh III

8/11/19

MONTGOMERY TOWNSHIP BOARD OF SUPERVISORS
BOARD ACTION SUMMARY

SUBJECT: Consider Payment of Bills

MEETING DATE: August 26, 2019

ITEM NUMBER: #12.

MEETING/AGENDA: WORK SESSION ACTION XX NONE

REASON FOR CONSIDERATION: Operational: XX Information: Discussion: Policy:

INITIATED BY: Lawrence J. Gregan
Township Manager

BOARD LIAISON: Michael J. Fox,
Chairman of the Board of Supervisors



BACKGROUND:

Please find attached a list of bills for your review.

ZONING, SUBDIVISION OR LAND DEVELOPMENT IMPACT:

None.

PREVIOUS BOARD ACTION:

None.

ALTERNATIVES/OPTIONS:

None.

BUDGET IMPACT:

None.

RECOMMENDATION:

Approval all bills as presented.

MOTION/RESOLUTION:

None.

DISTRIBUTION: Board of Supervisors, Frank R. Bartle, Esq.

Check Date	Bank	Check	Vendor	Vendor Name	Amount
Bank 01 UNIVEST CHECKING					
08/13/2019	01	75828	00000072	CANON FINANCIAL SERVICES, INC	1,622.00
08/23/2019	01	75829	00000496	21ST CENTURY MEDIA NEWSPAPERS LLC	990.32
08/23/2019	01	75830	00000842	911 SAFETY EQUIPMENT	1,910.52
08/23/2019	01	75831	MISC	A TO Z PARTY RENTAL	69.43
08/23/2019	01	75832	00000006	ACME UNIFORMS FOR INDUSTRY	440.75
08/23/2019	01	75833	100000892	ADAM ZWISLEWSKI	80.00
08/23/2019	01	75834	00000340	ADVENT SECURITY CORPORATION	201.42
08/23/2019	01	75835	00001202	AIRGAS, INC.	258.87
08/23/2019	01	75836	00002008	ALEX OLIMPO	43.61
08/23/2019	01	75837	100000876	ALEXANDER J. DEANGELIS	30.00
08/23/2019	01	75838	100000814	AMAZON.COM SERVICES, INC	272.66
08/23/2019	01	75839	00001291	ANCHOR FIRE PROTECTION CO., INC.	1,000.00
08/23/2019	01	75840	100000853	ANDREW HABER	986.68
08/23/2019	01	75841	100000888	ANDREW WEINER	15.00
08/23/2019	01	75842	00000031	AT&T	125.64
08/23/2019	01	75843	100000915	AUSTIN NEDWICK	15.00
08/23/2019	01	75844	100000870	AXON ENTERPRISE, INC	512.00
08/23/2019	01	75845	100001111	BARBARA ANN VESAY	50.00
08/23/2019	01	75846	00000999	BCG-BENEFIT CONSULTANTS GROUP	915.00
08/23/2019	01	75847	00000999	BCG-BENEFIT CONSULTANTS GROUP	881.75
08/23/2019	01	75848	MISC	BORO CONSTRUCTION	59.71
08/23/2019	01	75849	00000209	BOUCHER & JAMES, INC.	27,857.77
08/23/2019	01	75850	00000209	VOID	0.00
08/23/2019	01	75851	100000128	BOW WOW WASTE	964.84
08/23/2019	01	75852	100000979	BRANDON UZDZIENSKI	15.00
08/23/2019	01	75853	100001063	BRIAN ALLEN	15.00
08/23/2019	01	75854	100001080	BRIAN GRABER	45.00
08/23/2019	01	75855	00001307	BUZZ BURGER, INC.	2,822.40
08/23/2019	01	75856	00000069	C L WEBER CO INC.	28.69
08/23/2019	01	75857	100000405	C.E.S.	427.08
08/23/2019	01	75858	100000878	CARL HERR	30.00
08/23/2019	01	75859	00001601	CDW GOVERNMENT, INC.	27.65
08/23/2019	01	75860	100001052	CHARLIE'S LAWCARE	290.00
08/23/2019	01	75861	00000363	COMCAST	276.84
08/23/2019	01	75862	00000329	CRAFCO, INC.	4,239.62
08/23/2019	01	75863	100000291	DEGLER-WHITING, INC.	16,287.00
08/23/2019	01	75864	00000125	DISCHELL, BARTLE DOOLEY	17,432.50
08/23/2019	01	75865	00000125	VOID	0.00
08/23/2019	01	75866	00002097	DISCOVERY BENEFITS INC.	450.00
08/23/2019	01	75867	100000893	DONALD TUCKER	15.00
08/23/2019	01	75868	MISC	DOWNIE AGENCY, INC.	262.81
08/23/2019	01	75869	00001166	DRUMHELLER CONSTRUCTION, INC.	55,184.49
08/23/2019	01	75870	100001112	DYAN KRAJNIKOVICH	1,560.00
08/23/2019	01	75871	00001332	EAGLE POWER & EQUIPMENT CORP	206.28
08/23/2019	01	75872	00000152	ECKERT SEAMANS CHERIN &	4,620.00
08/23/2019	01	75873	03214663	ELITE 3 FACILITIES MAINTNEANCE, LLC	4,240.00
08/23/2019	01	75874	MISC	ELLIOT MANAGEMENT	32.37
08/23/2019	01	75875	100001099	EMERGENCY VEHICLE RESPONSE	7,500.00
08/23/2019	01	75876	00903110	ESTABLISHED TRAFFIC CONTROL	140.00
08/23/2019	01	75877	100000129	EUROFINS QC, INC.	195.00
08/23/2019	01	75878	100000258	FRANK J. COLELLI	546.75
08/23/2019	01	75879	03214568	FULTON CARDMEMBER SERVICES	1,594.29
08/23/2019	01	75880	00000611	FUN EXPRESS LLC	173.94
08/23/2019	01	75881	100000733	FUNDAMENTAL TENNIS	924.00
08/23/2019	01	75882	MISC	G & N FITNESS LLC	535.00
08/23/2019	01	75883	00000188	GALLS, AN ARAMARK CO., LLC	150.00
08/23/2019	01	75884	MISC	GASPER LANDSCAPES	1,200.00
08/23/2019	01	75885	00000192	GENERAL RECREATION, INC.	630.00
08/23/2019	01	75886	00000193	GEORGE ALLEN PORTABLE TOILETS, INC.	621.00
08/23/2019	01	75887	00000817	GILMORE & ASSOCIATES, INC.	50,963.60
08/23/2019	01	75888	00000817	VOID	0.00
08/23/2019	01	75889	00000817	VOID	0.00
08/23/2019	01	75890	00000198	GLASGOW, INC.	377.21
08/23/2019	01	75891	00001323	GLICK FIRE EQUIPMENT COMPANY INC	5,762.00
08/23/2019	01	75892	00001323	GLICK FIRE EQUIPMENT COMPANY INC	329.50
08/23/2019	01	75893	00000219	GLOBAL EQUIPMENT COMPANY	143.51
08/23/2019	01	75894	00001784	GOOGLE INC.	96.76
08/23/2019	01	75895	00000229	GRAINGER	186.50
08/23/2019	01	75896	00000203	GRANTURK EQUIPMENT CO., INC.	1,355.15
08/23/2019	01	75897	00000206	GT RADIATOR REPAIRS, INC.	174.00
08/23/2019	01	75898	00000223	GUIDEMARK, INC.	8.64
08/23/2019	01	75899	100000132	HARRY T. ALLEN	25.00
08/23/2019	01	75900	100000162	HERMAN GOLDNER COMPANY, INC.	521.11
08/23/2019	01	75901	00001793	HILLTOWN TOWNSHIP	1,654.99
08/23/2019	01	75902	00000903	HOME DEPOT CREDIT SERVICES	992.52
08/23/2019	01	75903	MISC	HORIZON SERVICES INC	90.00
08/23/2019	01	75904	00441122	HORSHAM CAR WASH	316.00
08/23/2019	01	75905	00001052	HORSHAM TOWNSHIP	1,166.60

Check Date	Bank	Check	Vendor	Vendor Name	Amount
08/23/2019	01	75906	100000889	JACOB WELTMAN	30.00
08/23/2019	01	75907	00902813	JOEDY JOHNSON	155.00
08/23/2019	01	75908	100000881	JOHN H. MOGENSEN	60.00
08/23/2019	01	75909	00000257	JOHN R. YOUNG & COMPANY	3,295.00
08/23/2019	01	75910	100000887	JON WASHINGTON	90.00
08/23/2019	01	75911	00000377	KATHY'S JUST DESSERTS, INC.	780.00
08/23/2019	01	75912	MISC	KEYSTONE CONVERTING, INC.	2,044.00
08/23/2019	01	75913	00902911	KIM P. GREENE	75.00
08/23/2019	01	75914	00000057	LAWN AND GOLF SUPPLY COMPANY, INC.	435.73
08/23/2019	01	75915	00001706	LOWE'S COMPANIES INC.	178.54
08/23/2019	01	75916	00000055	MARK MANJARDI	200.00
08/23/2019	01	75917	MISC	MARK'S JEWELERS & SONS INC	742.83
08/23/2019	01	75918	00000689	MARY KAY KELM, ESQUIRE	2,025.00
08/23/2019	01	75919	100000883	MARY NEWELL	80.00
08/23/2019	01	75920	00000201	MASTERTECH AUTO SERVICE, LLC	1,324.68
08/23/2019	01	75921	100000877	MATTHEW GIORGIO	40.00
08/23/2019	01	75922	00000974	MCCARTHY AND COMPANY, PC	5,488.75
08/23/2019	01	75923	00000743	MES - PENNSYLVANIA	369.59
08/23/2019	01	75924	100000875	MICHAEL BEAN	70.76
08/23/2019	01	75925	100000885	MICHAEL SHEARER	45.00
08/23/2019	01	75926	100000515	MICHELLE IMBROGNO	80.00
08/23/2019	01	75927	100001114	MONICA GOODWIN	100.00
08/23/2019	01	75928	00000324	MOYER INDOOR / OUTDOOR	140.70
08/23/2019	01	75929	00001054	NEW BRITAIN TOWNSHIP	1,322.33
08/23/2019	01	75930	00905069	NORRISTOWN PUBLIC LIBRARY	10,000.00
08/23/2019	01	75931	00002029	NORTH PENN SCHOOL DIST	1,350.00
08/23/2019	01	75932	00000356	NORTH WALES WATER AUTHORITY	148.11
08/23/2019	01	75933	100000265	ONCE UPON A DREAM	200.00
08/23/2019	01	75934	100000265	ONCE UPON A DREAM	295.00
08/23/2019	01	75935	100000120	OTIS ELEVATOR COMPANY	4,767.36
08/23/2019	01	75936	03214653	OVERHEAD DOOR CORPORATION	201.40
08/23/2019	01	75937	00000311	PA DEPT OF LABOR & INDUSTRY-B	277.98
08/23/2019	01	75938	100000890	PAUL MOGENSEN	45.00
08/23/2019	01	75939	00000397	PECO ENERGY	12,674.83
08/23/2019	01	75940	00000399	PECO ENERGY	8,669.33
08/23/2019	01	75941	00000595	PENN VALLEY CHEMICAL COMPANY	1,304.50
08/23/2019	01	75942	00000726	PENN-HOLO SALES & SERVICES	147.75
08/23/2019	01	75943	00000388	PENNSYLVANIA ONE CALL SYSTEM, INC.	226.68
08/23/2019	01	75944	00001358	PENNSYLVANIA RECREATION AND PARK	5,179.00
08/23/2019	01	75945	100000754	PETROLEUM TRADERS CORP.	6,199.92
08/23/2019	01	75946	100000755	PETROLEUM TRADERS CORP.	4,873.10
08/23/2019	01	75947	00000009	PETTY CASH	284.18
08/23/2019	01	75948	00000446	PHISCON ENTERPRISES, INC.	600.00
08/23/2019	01	75949	00000945	PIPERSVILLE GARDEN CENTER, INC.	292.32
08/23/2019	01	75950	100000362	PUBLIC AGENCY TRAINING COUNCIL	495.00
08/23/2019	01	75951	00000252	PURE CLEANERS	483.00
08/23/2019	01	75952	100000662	QUICK LANE	44.03
08/23/2019	01	75953	100001010	RACHEL GIBSON	30.00
08/23/2019	01	75954	100000886	RACHEL TROUTMAN	45.00
08/23/2019	01	75955	100001066	RAMBO TREE CARE, INC.	63,750.00
08/23/2019	01	75956	100001110	RASHEASH ATIT	59.00
08/23/2019	01	75957	00906102	READY REFRESH	393.58
08/23/2019	01	75958	00000430	REM-ARK ALLOYS, INC.	239.98
08/23/2019	01	75959	100000780	RHYTHM ENGINEERING	6,250.00
08/23/2019	01	75960	00001812	ROBERT J. JOHNSON JR.	237.49
08/23/2019	01	75961	00001972	ROBERT L. BRANT	367.50
08/23/2019	01	75962	MISC	RODEWAY INN	166.27
08/23/2019	01	75963	100000873	RYAN ALLISON	30.00
08/23/2019	01	75964	100000884	RYAN RUDELL	30.00
08/23/2019	01	75965	100000498	SANDY COSTELLO	360.00
08/23/2019	01	75966	00000653	SCATTON'S HEATING & COOLING, INC.	689.76
08/23/2019	01	75967	00001618	SEALMASTER	174.00
08/23/2019	01	75968	MISC	SELLLOL, INC.	12.24
08/23/2019	01	75969	00001939	SERVICE TIRE TRUCK CENTERS	663.24
08/23/2019	01	75970	00000465	SHAPIRO FIRE PROTECTION COMPANY	980.05
08/23/2019	01	75971	00000833	SHERWIN WILLIAMS COMPANY	18.26
08/23/2019	01	75972	100000790	SHOEN SAFETY & TRAINING	1,040.00
08/23/2019	01	75973	00001030	SIGNAL CONTROL PRODUCTS, INC.	3,417.00
08/23/2019	01	75974	100001113	SIMPLEX WELLNESS	6,410.21
08/23/2019	01	75975	00000015	SPRINT	384.84
08/23/2019	01	75976	00001394	STANDARD INSURANCE COMPANY	7,503.03
08/23/2019	01	75977	100000701	STAPLES BUSINESS CREDIT	653.19
08/23/2019	01	75978	00003015	STEPHEN A. SPLENDIDO	35.17
08/23/2019	01	75979	00001200	SYNATEK	400.00
08/23/2019	01	75980	00000485	SYRENA COLLISION CENTER, INC.	75.00
08/23/2019	01	75981	MISC	TERESE LENTINI-GRAPHIC DESIGN	20.93
08/23/2019	01	75982	00001783	THE HOMER GROUP	7,316.48
08/23/2019	01	75983	100000824	THERESA HUYNH	200.00
08/23/2019	01	75984	00002020	THOMSON REUTERS	220.50
08/23/2019	01	75985	100000991	TIFCO INDUSTRIES INC.	247.75
08/23/2019	01	75986	00000506	TRANS UNION LLC	75.00

Check Date	Bank	Check	Vendor	Vendor Name	Amount
08/23/2019	01	75987	100000897	TREVOR DALTON	15.00
08/23/2019	01	75988	MISC	TULINO ANTHOHY S & LINDA L	148.00
08/23/2019	01	75989	100000210	UNIFIRST	50.80
08/23/2019	01	75990	00000040	VERIZON	64.66
08/23/2019	01	75991	00000040	VERIZON	41.68
08/23/2019	01	75992	100000766	VICTORIA HINDS	130.00
08/23/2019	01	75993	100000854	VINAY SETTY	120.00
08/23/2019	01	75994	100000891	VINCENT ZIRPOLI	175.39
08/23/2019	01	75995	00000538	WARRINGTON TOWNSHIP	1,263.85
08/23/2019	01	75996	100001043	WATERWAY NEW JERSEY	5,750.80
08/23/2019	01	75997	00001329	WELDON AUTO PARTS	1,007.93
08/23/2019	01	75998	00001329	VOID	0.00
08/23/2019	01	75999	00000533	WELLINGTON SPORTING GOODS, INC.	338.40
08/23/2019	01	76000	100001013	WILLIAM F. WIEGMAN III	60.00
08/23/2019	01	76001	00906130	WISMER AUTO INTERIORS	75.00
08/23/2019	01	76002	00001084	WITMER ASSOCIATES, INC.	3,305.28
08/23/2019	01	76003	100001042	ZACHARY EIDEN	45.00
08/23/2019	01	76004	00000550	ZEP MANUFACTURING COMPANY	481.64

01 TOTALS:

(5 Checks Voided)

Total of 172 Disbursements:

419,684.07

Check List
For Check Dates 08/13/2019 - 08/26/2019

Check Date	Vendor Name	Description	Amount
08/22/19	BCG 401	401 Payment	16,671.15
08/22/19	BCG 457	457 Payment	11,700.99
08/22/19	PA SCDU	Withholding Payment	509.76
08/22/19	PBA	PBA Payment	1,250.00
08/22/19	US Treasury	941 Payment	87,283.07
08/22/19	State of PA	State Tax Payment	9,683.55
Total Checks: 6			\$ 127,098.52