

School Committee Meeting Book

August 29, 2018 7:00 pm

Town Hall -100 Maple Avenue Selectmen's Meeting Room



AGENDA

August 29, 2018 7:00pm Town Hall—Selectmen's Meeting Room 100 Maple Avenue

<u>Items</u>	Sugg	ested time allotments
	Special Opening	7:00-7:10
I.	Public Participation	7:10-7:20
II.	Chairperson's Report & Members' Reports	
III.	Superintendent's Report	
IV.	Time Scheduled Appointments: Beal Early Childhood Center Building Project: Report & Discussion	7:20 – 7:50
V.	Curriculum	
VI. A.	Policy Adoption of Town Policies for Energy Reduction & Fuel Efficient Vehicles: Discussion	7:50 – 8:00
В. С.	Finance & Operations SHS Athletic Facilities Project & Summer School Maintenance: Report Campaign for Shrewsbury Athletic Fields: Vote to Accept Gifts Fiscal Year 2019 State Aid: Report Fiscal Year 2019 Grants: Report & Vote to Accept	8:00 - 8:15 8:15 - 8:20 8:20 - 8:30 8:30 - 8:40
VIII.	Old Business	
IX.	New Business	
X.	Approval of Minutes	8:40 – 8:45
XI.	Executive Session	
XII.	Adjournment	8:45

Next regular meeting: September 12, 2018



Special Opening MEETING DATE: 8/29/18

Under the direction of Mr. Michael Lapomardo, Music Teacher, Shrewsbury High School (SHS), the SHS A Cappella Choir will perform the National Anthem.

Members of the SHS A Cappella Choir in 2018-2019 are:

Soprano

Loren Cardani Julia Duda Fiona Ingersoll Nidhi Ramesh Hannah Walz

Alto

Victoria Ambrosino Chloe Carleton Anandita Punnamaraju Angela Rezuke Harini Shanmugam

Tenor

Ethan Clarke John Nichols Liam Reardon Daniel Stameris

Bass

Andrew Andersen Deane Drummey Zachary Fuller John Miwanda Thomas O'Neill Tommy Wang



ITEM NO: I Public Participation

MEETING DATE: **8/29/18**

SPECIFIC STATEMENT OR QUESTION:

Will the School Committee hear thoughts and ideas from the public regarding the operations and the programs of the school system?

BACKGROUND INFORMATION:

Copies of the policy and procedure for Public Participation are available to the public at each School Committee meeting.

ITEM NO: II. Chairperson's Report/Members' Reports

SPECIFIC STATEMENT OR QUESTION:

Will the School Committee hear a report from the Chairperson of the School Committee and other members of the School Committee who may wish to comment on school affairs?

BACKGROUND INFORMATION:

This agenda item provides an opportunity for the Chairperson and members of the Shrewsbury School Committee to comment on school affairs that are of interest to the community.

STAFF AVAILABLE FOR PRESENTATION:

School Committee Members

Mr. Jason Palitsch, Chairperson

Ms. Erin Canzano, Vice Chairperson

Ms. Sandra Fryc, Secretary

Dr. B. Dale Magee, Committee Member

Mr. Jon Wensky, Committee Member

ITEM NO: III. Superintendent's Report

SPECIFIC STATEMENT OR QUESTION:

Will the School Committee hear a report from Dr. Joseph M. Sawyer, Superintendent of Schools?

BACKGROUND INFORMATION:

This agenda item allows the Superintendent of the Shrewsbury Public Schools to comment informally on the programs and activities of the school system.

STAFF AVAILABLE FOR PRESENTATION:

Dr. Joseph M. Sawyer, Superintendent of Schools

ACTION RECOMMENDED FOR ITEMS I, II, & III:

That the School Committee accept the report and take such action as it deems in the best interest of the school system.



ITEM NO: IV. Time Scheduled Appointments: MEETING DATE: 8/29/18

A. Beal Early Childhood Center Building Project: Report & Discussion

BACKGROUND INFORMATION:

In June, the preferred solution for the proposed project for construction of a new Kindergarten - Grade 4 Beal School at the Glavin Center property on Lake Street was approved by the Beal Building Committee and the Massachusetts School Building Authority (MSBA). The project was approved to move into the next phase, known as "schematic design," which is Module 4 of the MSBA's process. The project team will provide the School Committee with a report regarding the progress made on the schematic design in advance of the September 4 meeting of the Beal Building Committee, where the Building Committee will vote to approve the submission of the schematic design to the MSBA.

The report regarding the schematic design being prepared by the architects will not be available until a time closer to the meeting because of elements that are not being finalized until then. Information regarding the MSBA process building projects may be found at http://www.massschoolbuildings.org/building/modules_overview, and specific information regarding the schematic design module may be found at http://www.massschoolbuildings.org/building/schematic.

ACTION RECOMMENDED:

That the Committee hear the report and provide feedback regarding the proposed schematic design.

AVAILABLE FOR PRESENTATION:

Dr. Joseph M. Sawyer, Superintendent of Schools

Mr. Patrick C. Collins, Assistant Superintendent for Finance & Operations

Ms. Kathryn Crockett, President, Lamoureux Pagano Associates

Mr. Sean Brennan, Architect, Lamoureux Pagano Associates

Mr. Paul Queeney, Owner's Project Manager, PMA Associates



ITEM NO: V. Curriculum	MEETING DATE:	8/29/18
BACKGROUND INFORMATION:		
ACTION RECOMMENDED:		
AVAILABLE FOR PRESENTATION:		



ITEM NO: VI. Policy MEETING DATE: 8/29/18

A. Adoption of Town Policies for Energy Reduction & Fuel Efficient Vehicles: Discussion

BACKGROUND INFORMATION:

The Town of Shrewsbury is pursuing designation as a "Green Community" through the Commonwealth of Massachusetts Green Community Designation & Grant Program, which will result in eligibility for grant funding for various initiatives related to saving energy, reducing emissions, etc. For a municipality to gain this designation, letters from the superintendent of its public school district must be provided to confirm that the school district has adopted the municipality's Energy Reduction Plan and the municipality's Fuel Efficient Vehicle Policy (which does not apply to school buses).

Dr. Sawyer and Mr. Collins recently met with Kevin Mizikar, Town Manager; Kristen Las, Assistant Town Manager; and Robert Cox, Superintendent of Public Buildings, in order to discuss the town's Green Community application and policies. Dr. Sawyer and Mr. Collins will provide a summary of how the town's Energy Reduction Plan and Fuel Efficient Vehicle Policy (enclosed) apply to the school district. More information on the Green Community program may also be found at https://www.mass.gov/guides/becoming-a-designated-green-community.

ACTION RECOMMENDED:

That the School Committee review and discuss the information at its August 29 meeting with the intention of voting on the school district's participation at its September 12 meeting.

AVAILABLE FOR PRESENTATION:

Dr. Joseph M. Sawyer, Superintendent of Schools

Mr. Patrick C. Collins, Assistant Superintendent for Finance & Operations



Town of Shrewsbury

Energy Reduction Plan

Adopted September 2018

This Energy Reduction Plan (ERP), in accordance with Criterion 3 of the Massachusetts Green Communities Program, outlines proposed energy efficiency measures to reduce costs and environmental impacts of municipal energy use in the Town of Shrewsbury, Massachusetts. The intent of this plan is to assist Shrewsbury in its energy reduction goals and help the Town achieve Green Communities designation through the Massachusetts Department of Energy Resources (DOER) Green Communities Program.

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I. PURPOSE AND ACKNOWLEDGEMENTS

This Energy Reduction Plan (ERP) outlines proposed energy efficiency measures to the reduce costs and environmental impact of municipal energy use in the Town of Shrewsbury. The intent of the Plan is to assist the Town of Shrewsbury in its ongoing Green Energy efforts, particularly the Town's current goal to become a designated Green Community through the Massachusetts Department of Energy Resources (DOER) Green Communities Program. In accordance with Criterion 3 of the Massachusetts Green Communities Program, the ERP allows municipal officials to identify energy-efficiency opportunities and establish a timeline with specific targets to reduce energy use in municipal facilities and vehicles by twenty (20) percent over a five-year period. Shrewsbury's energy baseline is computed from Fiscal Year 2017 (FY2017) energy usage and will be discussed in Section III of this plan. The energy conservation recommendations draw upon information from energy audits performed by Energy Source and the Central Massachusetts Regional Planning Commission (CMRPC). These strategies provide a realistic path for implementation that will evolve with the Town's priorities and changes in technology. The decreased energy use realized as a result of this plan will reduce greenhouse gas emissions and Town operating costs.

A. LETTERS VERIFYING THE ADOPTION OF THE ENERGY REDUCTION PLAN

- General Government- A letter of approval of this Energy Reduction Plan by the Board of Selectmen is attached in Appendix A, Adoption Verification Letters.
- **Schools** A letter of approval of this Energy Reduction Plan by the School Superintendent is attached in Appendix A, Adoption Verification Letters.

B. CONTRIBUTORS TO THE ENERGY REDUCTION PLAN

- Board of Selectmen
- Town Manager's Office
- Shrewsbury Public Schools
- Shrewsbury Electric and Cable Operations
- Public Buildings Department
- Accounting Office
- Assessor's Office

- Water and Sewer Departments
- Highway Department
- Fire Department
- Police Department
- Horizon Solutions LLC
- Central Massachusetts Regional Planning Commission (CMRPC)

II. EXECUTIVE SUMMARY

A. NARRATIVE SUMMARY OF THE TOWN

The Town of Shrewsbury is located in Central Massachusetts, approximately 34 miles west of Boston. With a population of 35,608, it is the second largest municipality in Worcester County, following its neighbor the City of Worcester. Shrewsbury is a suburban, residential community about 22 square miles in size with Lake Quinsigamond making up most of the town's western border.

Approximately fourteen percent (14.6%) of Shrewsbury residents are sixty-five (65) years or older and thirty eight percent (37.9%) are between the ages of 15 to 44 years old (American Community Survey, 2016). The Town's median age is approximately forty (40.6) (American Community Survey, 2016). Recent estimates show that median income in Shrewsbury is equal to \$98,790 (American Community Survey, 2016).

Shrewsbury has a board of selectmen comprised of five (5) members. While Shrewsbury remains an attractive place for recreation, working, and living, the Town must strive to balance environmental sustainability with its social and economic priorities. The Green Communities designation will be a significant step in achieving the status of a sustainable, environmentally friendly community.

B. SUMMARY OF MUNICIPAL ENERGY USES

The number of municipal buildings, vehicles, traffic lights and street lights are shown in Table 1 on page 5.

Municipal Buildings

The Town of Shrewsbury operates twenty-four (24) municipal buildings (excluding water and sewer treatment and pumping facilities) that will be assessed in this Energy Reduction Plan. These buildings include:

- Sherwood Middle School
- Shrewsbury Public Library
- Floral Street Elementary School
- Centech Fire Station
- Walter J. Paton Elementary School
- Calvin Coolidge Elementary School
- Beal School
- Senior Center
- Shrewsbury Town Hall
- Police Station
- Oak Middle School
- Lake Fire Station

- Donahue Rowing Center
- Parker Road PreK
- Fire Headquarters
- Shrewsbury Senior High School
- Highway Garage
- Spring Street Elementary School
- Legion
- Police Boat House
- Parker Road East
- Water and Sewer Garage
- Cemetery Garage

Most of these facilities are heated with natural gas, exceptions being the Donahue Rowing Center, which is heated with oil, and unheated buildings such as the Police Boat House, Allen Farm, and Parker Road East.

Building Additions and New Construction

In FY 2018, a new water treatment plant was constructed at 45 West Main Street, replacing the existing plant at 45 West Main Street. The Shrewsbury Public Library received an addition along with a complete renovation in August of 2016.

The Town is also in the process of replacing the Beal School. A new school facility is in the design phase. The Town intends to divest of the Beal School following construction and occupancy of the new facility. The Beal school is 32,100 sf. The replacement facility will be approximately 145,000 sf and meet LEED 4 standards. The lighting at the new school will consist of LEDs with digital lighting controls. The HVAC will have DDC controls. The Building insulation will meet or exceed building code.

Vehicles

Shrewsbury has a total of ___ (TBD) municipal vehicles. Of these vehicles, ___ (TBD) are exempt from the energy reduction policies. The Town owns no electric vehicle charging stations.

Street Lights and Traffic Lights

The Town of Shrewsbury has 3,084 streetlights. These lights are owned and maintained by Shrewsbury Electric and Cable Operations (SELCO), a municipal light plant that provides the Town with electricity. The majority of the lights (2,563) are LED while the remaining lights are sodium vapor or mercury (521). Converting the lights to LED occurred in four phases, the most recent (and most significant) of which took place in FY2018. Shrewsbury also has two (2) town-owned traffic control lights, which are located on Old Mill/Main Street and South Quinsigamond Avenue. The Town also owns and four (4) flashing school zone lights. The flashing school zone lights are LEDs.

Water and Sewer

The Town of Shrewsbury operates one (1) drinking water treatment plant, thirty-eight (38) sewer pump stations, eight (8) water pump stations, three (3) water regulator pits, four (4) water tanks, and an operations yard. Shrewsbury contributes to the regional wastewater treatment plant with Westborough. Because this plant is located in Westborough, it is excluded from this plan.

Renewable Energy

SELCO receives forty-five (45) to fifty (50) percent of its energy from non-carbon producing assets. There are small solar arrays on the roof at the Oak Middle School and at Floral Street Elementary School. SELCO commissioned a 3MW solar array in July 2018. The array was built by SELCO and will provide energy for 400-500 homes. The array is constructed on a 12 acre portion of a capped landfill. SELCO is in the process of creating a community solar program. They are also reserving 1,000,000 kWh hours of energy produced by the solar array for the projected new elementary school. In addition, SELCO has a Power Purchase Agreement (PPA) with Con Edison for a 2.5MW solar array located in Town on Cherry Street. There are plans for a 60kW solar facility being built in conjunction with the new water treatment plant located at 45 West Main Street.

Outside of Town borders, SELCO has a thirteen (13) percent ownership stake in a 15MW wind farm built by municipal electric utilities. It resides in Hancock MA and was the largest wind farm in the State at the time of commissioning in 2011. SELCO also has a PPA with Ashelot to purchase hydro-generated energy from a dam in New Hampshire.

Table 1: Summary of Municipal Energy Users						
Municipal Energy User	Number	Ownership				
Buildings Heat Source						
Oil Heat	1	Town of Shrewsbury				
Natural Gas Heat	20	Town of Shrewsbury				
Propane Heat	0	N/A				
Propane for Kitchen Use	0	N/A				
Biomass Heat	0	N/A				
Other Heat Type	0	N/A				
Vehicles						
Non-Exempt	<mark>TBD</mark>	Town of Shrewsbury				
Exempt	TBD	Town of Shrewsbury				
Street Lights and Traffic Lights						
Street Lights	3,084	SELCO				
Traffic Lights	2	Town of Shrewsbury				

Water and Sewer		
Drinking Water Treatment Plant	1	Town of Shrewsbury
Pumping Stations	46	Town of Shrewsbury
Open Space		
Parks and Fields	2	Town of Shrewsbury

C. SUMMARY OF ENERGY USE BASELINE AND PLANS FOR REDUCTIONS

During baseline year FY2017, the total energy use in municipal vehicles and facilities in the Town of Shrewsbury was 91,976 MMBtus. Table 2 depicts an overall summary of the Town's municipal energy usage during the baseline year. This table includes projected savings. Figure 1, on the following page, shows overall energy usage by facility category for FY2017 as determined by MassEnergyInsight.

The majority of energy consumed in Shrewsbury is used by municipal buildings (56%). The remaining usage is divided between vehicles (19%), water and sewer (19%), street and traffic lights (5%) and open space (<1%).

At the request of the Town of Shrewsbury, Horizon Solutions LLC (Horizon) assessed and documented the energy conservation opportunities at Shrewsbury facilities. These opportunities were identified through several site visits, inspections, staff interviews, and data collected through the course of ASHRAE Level 2¹ audits. In conjunction with vehicular and training measures, the identified projects will reduce Shrewsbury's municipal energy use by twenty (20) percent from the baseline year. Specific actions are detailed in Section IV of this plan. The complete energy audits from Horizon are included as Appendix C.

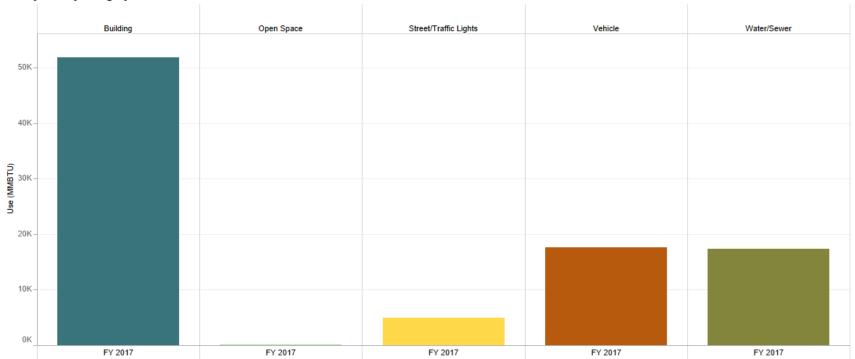
Table 2: Summary of Municipal Energy Use Baseline (FY2017)								
Categories	MMBtu Used in Baseline Year	% of Total MMBtu Baseline Energy Consumption	Projected Planned Documented MMBtu Savings ²	Savings as % of Total MMBtu Baseline Energy Consumption				
Buildings	51,892	56.42%	13,853	15.06%				
Vehicles	1 7, 655	19.20%	1,882	2.05%				
Street/Traffic Lights	4,941	5.37%	1,457	1.58%				
Water/Sewer	17,350	18.86%	0	0.00%				
Open Space	139	0.15%	0	0.00%				
Total	91,976	100%	17,192	18.69%				

¹ An ASHRAE Level 1 assessment determines how much energy a building uses and how that compares to other similar buildings, includes a short walk-through of the facility and identifies potential efficiency measures. The costs and savings of the measures are usually identified with low precision. An ASHRAE Level 1 assessment is often referred to as a scoping audit. An ASHRAE Level 2 assessment expands on a Level 1 by identifying much more accurate costs and savings for the recommended efficiency measures. Note that these costs are still not bid-level construction costs but generally are within 15-20 percent of accuracy. Cost and energy savings from operational and behavioral measures are also quantified in an ASHRAE Level 2 assessment. For more complex facilities, an end-use breakdown of how a facility uses its energy (i.e., 30 percent of electricity use is for lighting, 60 percent for HVAC, and 10 percent for plug load) is typically included.

² Projected planned energy savings are discussed in more detail later in this plan and are presented in Table 3.

Figure 1. Baseline Dashboard from MEI

Use by Facility Category



III. ENERGY USE BASELINE INVENTORY

A. IDENTIFICATION OF THE INVENTORY TOOL USED

The Town of Shrewsbury will use the MassEnergyInsight (MEI) database as the inventory tool for this Energy Reduction Plan.

B. IDENTIFICATION OF THE BASELINE YEAR

The Town of Shrewsbury intends to complete its twenty (20) percent reduction as outlined in this Energy Reduction Plan in a 5-year period starting in fiscal year 2017 and ending in fiscal year 2022. FY2017 will serve as the baseline year, starting on July 1, 2016 and ending on June 30, 2017. The total consumption of energy in FY2017 was 91,976 MMBtus as shown Tables 3a and Table 3b on the following pages.

C. MUNICIPAL ENERGY CONSUMPTION FOR THE BASELINE YEAR

During baseline year FY2017, the energy used by municipal vehicles and facilities in the Town of Shrewsbury totaled 91,976 MMBtus. Tables 3a and 3b present energy use for each municipal facility in Native Units and MMBtus, respectively. The information shown in Figure 2 below is provided by the DOER to explain how MMBtus are calculated.

Figure 2. MMBtu Conversion Chart

1 kilowatt hour of electricity	= 0.003412 MMBtu
1 therm	= 0.1 MMBtu
1 ccf (100 cubic foot) of natural gas	= 0.1028 MMBtu ³
1 gallon of heating oil	= 0.139 MMBtu
1 gallon of propane	= 0.091 MMBtu
1 cord of wood	= 20 MMBtu
1 gallon of gasoline	= 0.124 MMBtu ³
1 gallon of E100 ethanol	= 0.084 MMBtu
1 gallon of E85 ethanol	= 0.095 MMBtu
1 gallon of diesel fuel	= 0.139 MMBtu
1 gallon of B100 biodiesel	= 0.129 MMBtu
1 gallon of B20 biodiesel	= 0.136 MMBtu2 ⁴
1 gallon of B10 biodiesel	= 0.137 MMBtu9
1 gallon of B5 biodiesel	= 0.138 MMBtu9 ⁴
1 barrel of residual fuel oil	= 6.287 MMBtu

Fuel Energy Content of Common Fossil Fuels per DOE/EIA⁵ BTU Content of Common Energy Units – (1 million Btu equals 1 MMBtu)

³ Based on U.S. consumption, 2007

⁴ Calculated Values from those of diesel and B100 biodiesel

⁵ US Department of Energy/Energy Information Administration

Table 3a. Energy Reduction Plan Guidance (Native Fuel Units)

ERP Guidance Table 3a - Municipal Energy Consumption for 2017 (Native Fuel Units)

		Electric (kWh)	Gas (therms)	2017 Oil (gallons)	Gasoline (gallons)	Diesel (gallons)
					(gallons)	(gallons)
Building	Sherwood MS	699,000	17,442			
	Shrewsbury Public Library	377,560	6,912			
	Floral Street ES	573,600	17,274			
	Centech Fire Station	39,183	1,570			
	Walter J Paton ES	186,577	10,861			
	Calvin Coolidge ES	397,640	8,823			
	Beal School	205,803	20,086			
	Senior Center	82,400	3,286			
	Shrewsbury Town Hall	532,630	527			
	Police Station	189,041	10,978			
	Oak MS	1,075,500	56,406			
	Lake Fire Station	38,180	2,141			
	Parker Road PreK	102,463	3,112			
	Donahue Rowing Center	33,824		2,398		
	Fire Headquarters	126,160	5,892			
	Shrewsbury Sr HS	2,064,000	65,222			
	Highway Garage	109,900	13,700			
	Spring Street ES	286,160	13,426			
	Legion	1,558	2,012			
	Police Boat House	331				
	Parker Road East	15,692				
	Water and Sewer Garage	41,077	8,868			
	Cemetery Garage	1,811	2,063			
	Allen Farm	71				
	Total	7,180,161	270,601	2,398		
Open Space	Dean Park	36,794				
	Maple Ave Soccer Fields	3,901				
	Total	40,695				
Street/Traffic	Streetlights	1,444,282				
Lights	Traffic Lights	3,685				
	Blinking School Lights	38				
	Total	1,448,005				
Vehicle	Police				39,672	0
	All except police				61,989	36,323
	Total				101,661	36,323

Table 3a. Energy Reduction Plan Guidance (Native Fuel Units) (cont.)

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I Laxfield Road Sewer Pum RCHARD MEADOW DR SE PINELAND AVE SEWER P DLFE AVE SEWER 2 SO QUINSIG. AVE SEW GO. BROOK ST SEWER P NAGER HILL DR SEWER PU BLIN HILL DR SEWER PU	3,167 2,485 290,840 2,305 3,610 5,121 27,386				
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one Meadow Farm Sewer P	13,565	32			
oney Hill Sewer Pump Stati	47,712	84			
ail Hollow Sewer Pump Sta	39,072	112			
melot Drive Sewer Pump S	14,641	17			
Hillandro Drive	9,527	0			
	melot Drive Sewer Pump S ail Hollow Sewer Pump Sta oney Hill Sewer Pump Stati	Hillandro Drive 9,527 melot Drive Sewer Pump S 14,641 ail Hollow Sewer Pump Stat 39,072 oney Hill Sewer Pump Stat 47,712 one Meadow Farm Sewer P 13,565 if Main Street Line 273,600 if West Main Street owwood Drive Sewer Pum 17,952 Main Street if Oak Street 5,867 Appaloosa Drive Sewer Pu 5,563 wditch Drive/ James Barre 7,578 dedar Rd. Sewer Pump Stat 7,199 Ilonial Drive Sewer Pum. 31,393 glehead Terrace Sewer Pu 7,255 id Street/ Farmington Sewe 31,600 ig Grafton St. Sewer Pump 10,718 is Grafton St. Sewer Pump 24,727 if Street Sewer Pump Stat 25,034 Hartford Turnpike Sewer P 20,544 rvey Place Sewer Pump St 100,363 il Street Sewer Pump St 100,363 il Street Sewer Pump St 10,000 is Howe Ave Sewer Pump Stat 59,202 in Lake St. Sewer Pump Stat 5,600 Lake St. Sewer Pump Stat 224,700 ik Street Sewer Pump Stat 9,124	Hillandro Drive 9,527 0 melot Drive Sewer Pump St. 14,641 17 ail Hollow Sewer Pump Stat. 39,072 112 oney Hill Sewer Pump Stati. 47,712 84 one Meadow Farm Sewer P. 13,565 32 I Main Street Line 273,600 5,002 I West Main Street 10 owwood Drive Sewer Pum. 17,952 491 Main Street 553 I Oak Street 5,867 272 oppaloosa Drive Sewer Pu. 5,563 212 oppaloosa Drive Sewer Pu. 7,578 oppaloosa Drive Sewer Pump Stat. 7,199 Idenial Drive Sewer Pump St. 13,393 glehead Terrace Sewer Pu. 7,255 Id Street/ Farmington Sewe. 31,600 Opparison St. Sewer Pump St. 10,718 Opparison St. Sewer Pump St. 24,727 If Street Sewer Pump Stati. 25,034 Hartford Turnpike Sewer P. 20,544 Invey Place Sewer Pump St. 10,000 Opparison St. St. 10,000 Oppari	Hillandro Drive 9,527 0 melot Drive Sewer Pump St 14,641 17 ail Hollow Sewer Pump Stat 39,072 112 step Hill Sewer Pump Stati 47,712 84 step Meadow Farm Sewer P 13,565 32 1 Main Street Line 273,600 5,002 1 West Main Street 10 step Hill Sewer Pum 17,952 491 10 step Hill Sewer Pum 10 step Hill Sewer Pump Stat 10 step Hill Sewer Pump S	Hillandro Drive 9,527 0 melot Drive Sewer Pump St. 14,641 17 all Hollow Sewer Pump St. 39,072 112 step Hill Sewer Pump Stati. 47,712 84 step Main Street Line 273,600 5,002 1 Main Street Line 273,600 5,002 1 Main Street Line 10 melot Drive Sewer Pum. 17,952 491 10 melot Drive Sewer Pum. 17,578 10 melot Drive James Barre 7,578 10 melot Drive James Barre 7,578 10 melot Drive Sewer Pump St. 13,393 10 melot Drive Sewer Pump St. 13,393 10 melot Drive Sewer Pump St. 13,393 10 melot Drive Sewer Pump St. 10,718 10 melot Drive Sewer Pump St. 10,363 10 melot Drive Sewer Pump St. 10,363 10 melot Drive Sewer Pump St. 10,363 10 melot Drive Sewer Pump St. 10,000 10 melot Drive Sewer

Table 3b. Energy Reduction Plan Guidance (MMBtu)

ERP Guidance Table 3b - Municipal Energy Consumption for 2017 (MMBTU) Please make sure that any data submitted to DOER contains complete Data!

		2017					
		Diesel	Electric	Gas	Gasoline	Oil	Total
Building	Sherwood MS		2,385	1,744			4,129
	Shrewsbury Public Library		1,288	691			1,979
	Floral Street ES		1,957	1,727			3,685
	Centech Fire Station		134	157			291
	Walter J Paton ES		637	1,086			1,723
	Calvin Coolidge ES		1,357	882			2,239
	Beal School		702	2,009			2,711
	Senior Center		281	329			610
	Shrewsbury Town Hall		1,817	53			1,870
	Police Station		645	1,098			1,743
	Oak MS		3,670	5,641			9,310
	Lake Fire Station		130	214			344
	Parker Road PreK		350	311			661
	Donahue Rowing Center		115			333	449
	Fire Headquarters		430	589			1,020
	Shrewsbury Sr HS		7,042	6,522			13,565
	Highway Garage		375	1,370			1,745
	Spring Street ES		976	1,343			2,319
	Legion		5	201			207
	Police Boat House		1				1
	Parker Road East		54				54
	Water and Sewer Garage		140	887			1,027
	Cemetery Garage		6	206			212
	Allen Farm		0				0
	Total		24,499	27,060		333	51,892
Open Space	Dean Park		126				126
	Maple Ave Soccer Fields		13				13
	Total		139				139
Street/Traffic	Streetlights		4,928				4,928
Lights	Traffic Lights		13				13
	Blinking School Lights		0				0
	Total		4,941				4,941
Vehicle	Police	0			4,919		4,919
	All except police	5,049			7,687		12,736
	Total	5,049			12,606		17,655
Water/Sewer	108 Reservoir Street Sewer P		231	2			233
	17 Hillandro Drive		33	0			33
	Camelot Drive Sewer Pump S		50	2			52
	Quail Hollow Sewer Pump Sta		133	11			145
	Stoney Hill Sewer Pump Stati		163	8			171

Grand Total

Table 3b. Energy Reduction Plan Guidance (MMBtu) (cont.)

	5,049	46,248	27,740	12,606	333	91,976
Total		16,670	680			17,350
Colton Lane Pump		51				51
8 THORNING DRIVE		12				12
206 SOUTH ST PUMP		1,234				1,234
SEWALL ST PUMP 4		1,234				1,234
45 MAIN ST. 125 PROSPECT STREET		8,283 24				8,283
LAMBERTS PIT Well		620 8 283				8 283
38 HILLSIDE DR WATER TA		1,168				1,168
171 GULF ST WATER BOOS		-				
344 WALNUT STREET SEW 35 BROWNING RD TANK		7				158
344 WALNUT STREET SEW		155				
TANAGER HILL DR SEWER TOBLIN HILL DR SEWER PU		93				93
6 SO. BROOK ST SEWER P TANAGER HILL DR SEWER		12 17				12
232 SO QUINSIG. AVE SEW						42
ROLFE AVE SEWER		992				992
1 PINELAND AVE SEWER P		8				3
ORCHARD MEADOW DR SE		11				11
Old Laxfield Road Sewer Pum		128				128
Oak Street Sewer Pump Stati		31				31
Maple Ave Sewer Pump Stati		767				767
65 Lakeside Drive Sewer Pum		8				70:
490 Lake St. Sewer Pump Sta		19				19
Jordan Pond Sewer Pump Sta		202				202
128 Howe Ave Sewer Pump S		6				
Holden Street Sewer Pump St		34				34
Hill Street Sewer Pump Station		236				230
Harvey Place Sewer Pump St		342				342
51 Hartford Turnpike Sewer P		70				70
Gulf Street Sewer Pump Stati		85				88
478 Grafton St. Sewer Pump		84				84
629 Grafton St. Sewer Pump		37				37
Gold Street/ Farmington Sewe		108				108
Eaglehead Terrace Sewer Pu		25				25
Colonial Drive Sewer Pump St		46				46
7 Cedar Rd. Sewer Pump Stat		25				25
Bowditch Drive/ James Barre		26				26
1 Appaloosa Drive Sewer Pu		19	21			40
171 Oak Street		20	27			47
79 Main Street			55			55
Arrowwood Drive Sewer Pum		61	49			110
231 West Main Street			1			1
371 Main Street Line		934	500			1,434

IV. ENERGY REDUCTION PLAN

A. NARRATIVE SUMMARY

The Town of Shrewsbury is committed to reducing baseline (FY2017) energy consumption by twenty (20) percent over the 5-year period from FY2018 to the end of FY2022. A list of specific and documented strategies is presented in Table 4 (see Appendix B), which accounts for 17,192 MMBtus or 18.69 percent of total municipal energy consumption. The energy audit conducted by Horizon identifies the majority of these projects and is included as Appendix C.

Overview of Goals for Years 1 - 3

This time period runs from FY2018 to the end of FY2020. Several energy efficiency measures were completed in the first year of this period. These projects include:

- Streetlights: Shrewsbury converted 1,933 of its streetlights to energy efficient LEDs.
- Town Hall: LED lighting on 2nd floor and HVAC upgrade.
- High School: LED exterior lighting.
- Paton School: HVAC upgrade and air conditioning.
- Spring Street School: HVAC upgrade and air conditioning.

In years FY2019 and FY2020, Shrewsbury's strategy will be to implement....

- TBD
- TBD
- TBD
- TBD

During this period the Town will also work on behavioral and vehicular fuel conservation measures such as:

- Implementing an anti-idling policy in all non-police vehicles
- Installing IdleRight devices in a portion of its police vehicles
- Implement the general vehicle fuel economy measures recommended and outlined in this plan
- Implement the general behavioral conservation measures recommended and outlined in this plan

Overview of Goals for Years 4 - 5

The goals for FY2021 and FY2022 are to complete any unfinished projects planned for years 1-3 and the following projects:

- TBD
- TBD
- TBD
- TBD

Identify Areas of Least Efficiency/Greatest Waste

Shrewsbury will work to identify areas of least efficiency/greatest waste using MEI's Buildings to Target assessment. This assessment, which is presented in Table 3a, compares municipal buildings to one another using a standardized energy use per area metric. This metric is measured as kBTU/square foot. Buildings that have the highest energy use and the worst efficiency are located in the top right quadrant of the figure labeled Efficiency and Use in Figure 3b.

Shrewsbury's municipal buildings average 51.6 kBTU/sf. The High School is the largest energy user but slightly below the median efficiency at 43.4 kBTU/sf. Oak Middle School is the second largest energy user and has an efficiency comparable to the median and High School (48.3 kBTU/sf). In comparison, the Police Station and Legion are closer to the Town's median usage (981 MMBtu) but are less efficient at 150.4 and 145 kBTU/sf, respectively. Stronger conservation measures at high-usage but relatively efficient buildings combined with the first-wave of conservation measures at small-usage but inefficient buildings will provide the greatest savings. Thus, Figures 3a and 3b provides a clear path forward in regard to what energy conservation measures can be expected to result in the greatest savings at each municipal building in the Town of Shrewsbury.

Figure 3a. Buildings to Target from MEI



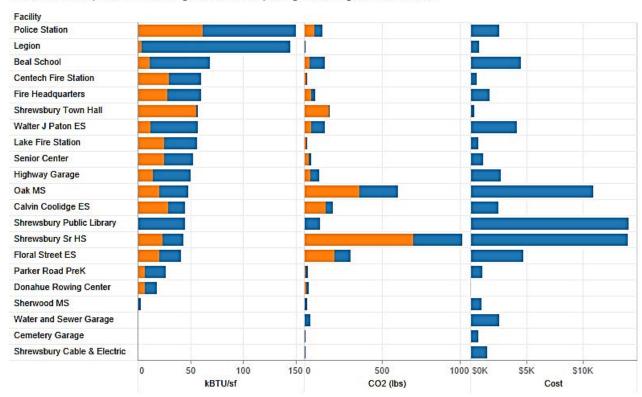
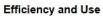
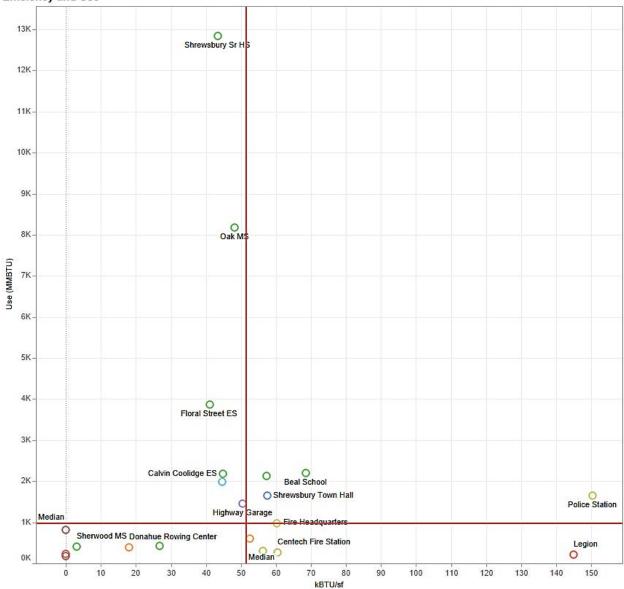


Figure 3b. Building Energy Efficiency per Square Foot from MEI





B. REACHING 20% ENERGY USE REDUCTION WITHIN 5-YEARS FOLLOWING BASELINE

The Town of Shrewsbury is committed to reducing baseline (FY2017) energy consumption by twenty (20) percent over the 5-year period from FY2017 to the end of FY2022. A list of specific and documented strategies is presented in Table 4a (see Appendix B) and accounts for a reduction of 18.69 percent of baseline energy use. The strategy for implementing this plan is presented below.

Program Management Plan for Implementation, Monitoring, and Oversight

The Town Manager's Office will be responsible for securing the funds and general oversight of the energy efficiency projects, annual reporting, grant administration, and maintaining energy use data in MEI.

Methodology

The Town of Shrewsbury will follow the recommendations outlined by Horizon and the vehicle and programmatic measures identified by CMRPC. Together, these strategies will reduce the Town's energy use by twenty (20) percent.

Summary of Energy Audits and Other Sources for Projected Energy Savings

In 2018, Horizon Solutions audited eleven (11) of Shrewsbury's buildings as part of the Town's Green Communities effort. Audited facilities included:

- Oak Middle School
- Sherwood Middle School
- High School
- Senior Center
- Town Hall
- Beal School

- Paton Elementary School
- Parker Road Pre-K
- Coolidge Elementary School
- Floral Street Elementary School
- Spring Street Elementary School

Buildings

In 2018, detailed audits were conducted at eleven (11) municipal buildings. These audits included data during site visit walkthroughs, review of utility bills, and discussions with administration officials, staff, and building occupants. The data presented in these audits includes specific energy conservation measures (ECMs) with detailed information about baseline energy use, projected usage savings and annual cost data. This information is contained in individual reports for each facility as well as in an Energy Audit Summary Report. Annual usage, cost estimates and annual cost savings were taken directly from these reports to estimate energy savings. These reports are contained in Appendix C.

In addition to building upgrades and energy-saving modifications, the Town intends to send a representative to Building Operator Certification (BOC®) training. Energy-savings evaluations show that an individual Certified Building Operator (CBO) can reduce energy use by more than 2% of a building's building electricity demand.⁶ By certifying operators in building systems efficiency, the town will realize savings in energy use and related costs, improvements in comfort and safety, and may continue to experience these benefits for up to five (5) years following certification (based on program estimates). ⁷

⁶Energy Savings for the Building Operator Certification (BOC®) Program. http://www.theboc.info/wp-content/uploads/2017/02/BOC-Energy-Savings-FAQ-2.0-web.pdf

⁷ Building Operator Certification Program. https://www.theboc.info/certifications/

Vehicles

The Central Massachusetts Regional Planning Commission (CMRPC) audited Shrewsbury's vehicular energy usage, projected usage savings, and annual cost information. CMRPC projects energy savings in the following vehicle-specific areas: (1) general fuel economy measures, (2) anti-idling policy, and (3) IdleRight technology. Savings projections were derived as follows:

General Vehicle-Fuel Conservation Measures (All Departments)

Implementing fuel economy measures can help reduce fuel consumption without any additional cost or investment. The town will implement the goals listed below to achieve approximately a three (3) percent reduction in fuel use. According to the US Department of Energy (DOE) website at fueleconomy.gov, these include the following:

- **Drive sensibly:** Avoid aggressive driving (e.g., rapid acceleration/ braking) to reduce vehicle fuel use by five (5) to thirty-three (33) percent.
- Remove excess weight: Avoid storing unnecessary items in your vehicle. An extra 100 pounds could reduce mpg by up to two (2) percent, especially in smaller vehicles
- **Keep engine tuned**: Fixing a vehicle that is out of tune or has failed an emissions test can improve gas mileage by an average of four (4) percent.
- Keep tires inflated: Improve gas mileage by up to 3.3 percent by inflating to proper pressure.
- Use recommended grade of oil. Improve gas mileage by one (1) to two (2) percent by using manufacturer's recommended grade of motor oil.

Calculations for estimating the MMBtus saved as a result of these measures are shown in Table 5a and 5b.

Table 5a. General Vehicle Fuel Economy Measures					
Action	Description	DOE Est Savings	Used in this ERP		
Drive Sensibly	Avoid aggressive driving (e.g., rapid acceleration and braking).		1%		
Remove Excess Weight	Avoid storing unnecessary items in your vehicle. An extra 100 pounds could reduce mpg by up to 2% especially in smaller vehicles.	1-2%	0.5%		
Keep Engine Tuned	Fixing a vehicle that is out of tune or has failed an emissions test can improve gas mileage by an average of 4%.	4%	0.5%		
Keep Tires Inflated	Improve gas mileage by up to 3.3% by inflating to proper pressure.	Up to 3%	0.5%		
Use Recommended Grade of Oil	Improve gas mileage by 1%-2% by using manufacturer's recommended grade of motor oil.	1-2%	0.5%		
		Total	3.0%		

Table 5b. Fuel Economy as MMBtus			
Summary	Amount		
Total Gasoline Gallons	101,661		
Total Diesel Gallons	36,323		
Gasoline Gallons Saved (3%)	3,050		
Diesel Gallons Saved (3%)	1,090		
Conversion Rate MMBtu, Gasoline	0.124		
Conversion Rate MMBtu, Diesel	0.139		
Total MMBtus Saved Annually	530		

Anti-Idling Policy (Non-Police Vehicles)

The Town of Shrewsbury will adopt an Anti-Idling Policy for Town-owned vehicles (excluding police vehicles). Department Heads will be asked to monitor compliance and report to the Town Manager after six (6) months of this policy taking effect in order to make suggestions for improvements or changes. Table 6 demonstrates potential anti-idling policy fuel savings based on Shrewsbury's non-police vehicles.

Table 6. Anti-Idling Policy Fuel Savings				
Category	Amount			
Non-Police Vehicle Gasoline	61,989			
Non-Police Vehicle Diesel	36,323			
Estimated Fuel Savings	3.0%			
Gasoline Saved (gallons)	3,050			
Diesel Saved (gallons)	1,090			
Conversion Rate MMBtu, Gasoline	0.124			
Conversion Rate MMBtu, Diesel	0.139			
MMBtus Saved, Gasoline	378			
MMBtus Saved, Diesel	152			
Total MMBtus Saved Annually	530			

IdleRight Devices

Shrewsbury will install IdleRight systems in fifteen (15) of its police patrol cruisers (IdleRight technology is available from Havis, Inc. and is described more completely at www.havis.com/idleright.htm). This technology is cost-effective, generates a fast return on investment, and is ideal for fleets in which anti-idling policies are not preferred. Table 7 presents the fuel savings projected as a result of this measure.

The IdleRight system monitors vehicle batteries' conditions and automatically turns vehicles on to idle only when necessary. While idling at an emergency or construction scene, a typical police

cruiser uses about 0.9 gallon of gasoline per hour. That same vehicle, equipped with the IdleRight system uses only about 1/10th of a gallon of gasoline per hour- and never jeopardizes the charge in the battery needed for startup. The cost of implementing the IdleRight equipment is approximately \$750 per vehicle. This means that the system will pay for itself in about 3 to 4 months of operation. Table 7 (next page) shows the calculated savings for implementing the program on the fifteen (15) sample vehicles.

Table 7. IdleRight Police Savings				
IdleRight Savings Per Police Cruiser				
Hours per Day Idling	1.5			
Days per Week on Duty	7			
Hours per Year Idling	546			
Gallons per Hour Saved	0.81			
Gallons Saved per Vehicle per Year	442			
Total Savings for Cruisers				
Number of Cruisers (sample of fleet)	15			
Total Gallons Saved per Year	6630			
Conversion Rate MMBtu, Gasoline	0.124			
Total MMBtu Saved Annually	882			

C. GENERAL CONSERVATION MEASURES

Specific strategies outlined in Table 4, in combination with the strategies identified above account for a projected energy savings of 18.69 percent. Beyond these measures, the Town of Shrewsbury will also implement "soft" measures, enabling the Town to meet the twenty (20) percent reduction target.

Municipal Buildings

Town buildings serve as the largest energy users. Consequently, the municipal buildings will continue to be an area of focus in the future. After the priority work identified in Table 4 Appendix B. is underway, smaller but still significant projects can be undertaken in all buildings. Such projects would include energy conserving window treatments for smaller area windows where appropriate and upgrading storm windows.

We also view training and education of building occupants as an ongoing energy reduction strategy. We will utilize a variety of behavioral strategies to conserve energy, including:

Equipment

Municipal employees will be instructed to turn off or set computers and other electronic equipment to hibernation mode when not in use. Additionally, school equipment will be turned off when not in use during summer months. Shrewsbury will ensure that building occupants are maintaining energy efficient practices by placing signage and/or reminder tags in each department office to encourage all occupants to power down and unplug during off hours.

Heating and Cooling

Regarding heating and cooling, building and zone thermostats shall be set to the highest comfortable temperature in summer and the lowest in winter. Employees shall be encouraged to keep warmer clothes on hand so that heating can be set at a lower level. Shrewsbury will also establish specific guidelines for open window air exchange as may be feasible and practicable. Automatic thermostats will be considered where feasible and employees will be encouraged to dial down thermostats when leaving room or building for non-automatic systems. The Town will also evaluate energy efficient strategies for keeping IT equipment cool.

Interior Lighting

Regarding lighting systems, The Town of Shrewsbury will ensure that public buildings are not lighted unnecessarily when in use, that buildings be upgraded to automatic light switches, and that employees be encouraged to turn off lights when exiting rooms and buildings.

Upon designation, the Town will track behavioral changes by conducting occasional, off-hours checks for monitors and lights left on and windows open in winter. We will also create an inventory of light switches that are not automatic and pursue appropriate upgrades.

Street and Traffic Lighting

The Town will continue to identify opportunities to utilize solar energy as substitute for hard wired street lighting systems. The Town Manager's Office will also coordinate with the Public Works and Police Department to identify additional energy savings by using passive, reflective signage rather than lighting for roadway safety where ever possible.

Operations, Maintenance, and Equipment

The Town will reduce energy consumption by working to make sure that certain operational and maintenance standards are in place. The Town will ensure that all equipment is functioning as designed, thermostats are calibrated correctly, dampers are correctly adjusted, and janitors are implementing best practices. Thermostats can also be relocated to be placed in more effective positions.

D. SUMMARY OF LONG-TERM ENERGY REDUCTION GOALS - BEYOND 5 YEARS

Beyond the 5-year plan outlined above, Shrewsbury will continue to pursue energy reduction goals. The following strategies will allow the Town to reduce its energy consumption below twenty (20) percent of the established FY2017 usage baseline.

Vehicles

The Town of Shrewsbury will continue to replace older vehicles with more fuel-efficient vehicles. The town will also investigate the possibility of acquiring electric vehicles and installing electric vehicle charging stations at public places throughout the town.

Perpetuating Energy Efficiency

The Town Manager's Office will investigate the possibility of an energy savings reinvestment plan, in which some of the energy savings are reinvested into a fund to finance future energy efficiency or renewable efficiency projects.

Alternative Modes of Transportation

The Town of Shrewsbury will continue to encourage walking, bicycling, and carpooling as energy efficient practices to reduce use of fossil fuels.

V. ONSITE RENEWABLE ENERGY PROJECTS AND RENEWABLE ENERGY

SELCO commissioned a 3MW solar array in July 2018. The array was built by SELCO and will provide energy for 400-500 homes. The array is constructed on a 12 acre portion of a capped landfill. SELCO is in the process of creating a community solar program. They are also reserving 1,000,000 kWh hours of energy produced by the solar array for the projected new elementary school. There are plans for a 60kW solar facility being built in conjunction with the new water treatment plant located at 45 West Main Street.

VI. LIST OF RESOURCES

In addition to the audits and reports referenced above in Section IV and attached to this report, the Town of Shrewsbury used the following people and resources to create this Energy Reduction Plan:

- Kelly Brown, Green Communities Regional Coordinator, Western Region, Massachusetts
 Department of Energy Resources (MA DOER). <u>kelly.brown@state.ma.us</u>
- Green Communities Grant Program Information and Guidance, Massachusetts Department of Energy Resources (MA DOER). www.mass.gov/energy/greencommunities
- Dominique DuTremble, Associate Planner, Central Massachusetts Regional Planning Commission. ddutremble@cmrpc.org
- Trea Schumacher, Planning Assistant, Central Massachusetts Regional Planning Commission. tschumacher@cmrpc.org
- Chris Bennet, Planning Technician, Central Massachusetts Regional Planning Commission. cbennett@cmrpc.org
- 2018 Energy Audit: Prepared by Horizon Solutions LLC. 2018. Appendix C.

APPENDICES - INCLUDED AS SEPARATE ATTACHMENTS

Appendix A: Adoption Verification Letters

Appendix B: Table 4. Energy Conservation Measures

Appendix C: Horizon Solutions Audit Report

POLICY STATEMENT BOARD OF SELECTMEN

Title: Fuel Efficient Vehicle Policy Policy Number: 26

Adoption Date: August 14, 2018 Revision Date:

Purpose: To establish practice that the Town of Shrewsbury shall purchase only fuel efficient vehicles for municipal use, whenever such vehicles are commercially available and practicable

Policy: In an effort to reduce carbon dioxide emissions, fuel consumption, and energy costs, the Town of Shrewsbury Board of Selectmen is hereby committed to purchasing only fuel efficient vehicles to meet this goal, effective immediately.

Definitions

Combined city and highway MPG (EPA Combined Fuel Economy (CFE):

Combined Fuel Economy means the fuel economy from driving a combination of 43% city and 57% highway miles and is calculated as follows:

$=1/((0.43/City\ MPG)+(0.57/Ihighway\ MPG))$

Drive System:

The manner in which mechanical power is directly transmitted from the drive shaft to the wheels.

The following codes are used in the drive field:

- ➤ AWD = All Wheel Drive: 4-wheel drive automatically controlled by the vehicle power-train system
- ➤ 4WD = 4-Wheel Drive: driver selectable 4-wheel drive with 2-wheel drive option
- \triangleright 2WD = 2-Wheel Drive

Heavy-duty vehicle:

A vehicle with a manufacturer's gross vehicle weight rating (GVWR) of more than 8,500 pounds.

Applicability

This policy applies to all divisions and departments of the Town of Shrewsbury, including School Department.

Guidelines

All departments shall purchase only fuel-efficient vehicles for municipal use, whenever such vehicles are commercially available and practicable.

The Town of Shrewsbury will maintain an annual vehicle inventory for both exempt and non-exempt vehicles and a plan for replacing these vehicles with vehicles that meet, at a minimum, the fuel efficiency ratings contained in the most recent guidance for Criteria 4 published by the Massachusetts Department of Energy Resources' "Green Communities Division". The fuel efficiency ratings contained therein are based on the most recently published US Environmental Protection Agency combined city and highway MPG ratings for vehicles.

This "Green Communities" guidance for Criteria 4 must be checked for updates prior to ordering replacement vehicles.

Exemptions

Heavy-duty vehicles are exempt. Examples include fire-trucks, ambulances, and some public works trucks that meet the definition of "heavy-duty vehicle".

Police cruisers, passenger vans, and cargo vans are exempt from this criterion as fuel efficient models are not currently available. However, we commit to purchasing fuel efficient police cruisers, passenger vans, and cargo vans when they become commercially available. Police and fire department administrative vehicles are NOT exempt and must meet fuel efficient requirements.

Inventory

The following information shall be included in a vehicle inventory list and said list shall be updated on an annual basis:

Model	Make	Model	Drive	Year/month	> 8500	Exempt or	MPG Rating	Vehicle
		Year	System	Purchased	pounds?	non-exempt		Function
			2-WD		(yes/no)			
			4-WD					
			A-WD					

NOTE: Departments may use EPA combined MPG estimates or actual combined MPG.

Anti-idling policy

No employee of the Town of Shrewsbury shall allow operation of the engine of a motor vehicle while said vehicle is stopped for a foreseeable period of time in excess of five minutes, unless such operation is necessary.

Fuel efficient vehicle replacement plan

The Town of Shrewsbury shall develop a plan to replace all non-exempt vehicles with fuel efficient vehicles as defined above. Said plan shall outline the process by which the Town will replace vehicles, set goals for when the existing fleet will be replaced, and review said plan on an annual basis.

Ouestions / enforcement

Inquiries should be directed to the department responsible for fleet management and/or fleet procurement. This policy is enforced by the Board of Selectmen and/or their designee(s).



ITEM NO: VII. Finance & Operations MEETING DATE: 8/29/18
A. SHS Athletic Facilities Project & Summer School Maintenance: Report

BACKGROUND INFORMATION:

Mr. Collins will provide an update regarding the renovation of the track and installation of the synthetic turf field at Shrewsbury High School, as well as a brief overview of other summer maintenance projects.

ACTION RECOMMENDED:

That the School Committee hear the report and take whatever steps it deems necessary in the interests of the Shrewsbury Public Schools.

AVAILABLE FOR PRESENTATION:

Mr. Patrick C. Collins, Assistant Superintendent for Finance & Operations

Shrewsbury High School Synthetic Turf Project Update

Patrick C. Collins
Asst. Superintendent for Finance and Operations

29 August 2018

Topics

- Track and Field Construction Update
- Related Projects
- Budget Status
- Athletic Schedules Impact
- Dedication Ceremony

Track and Field Construction Update





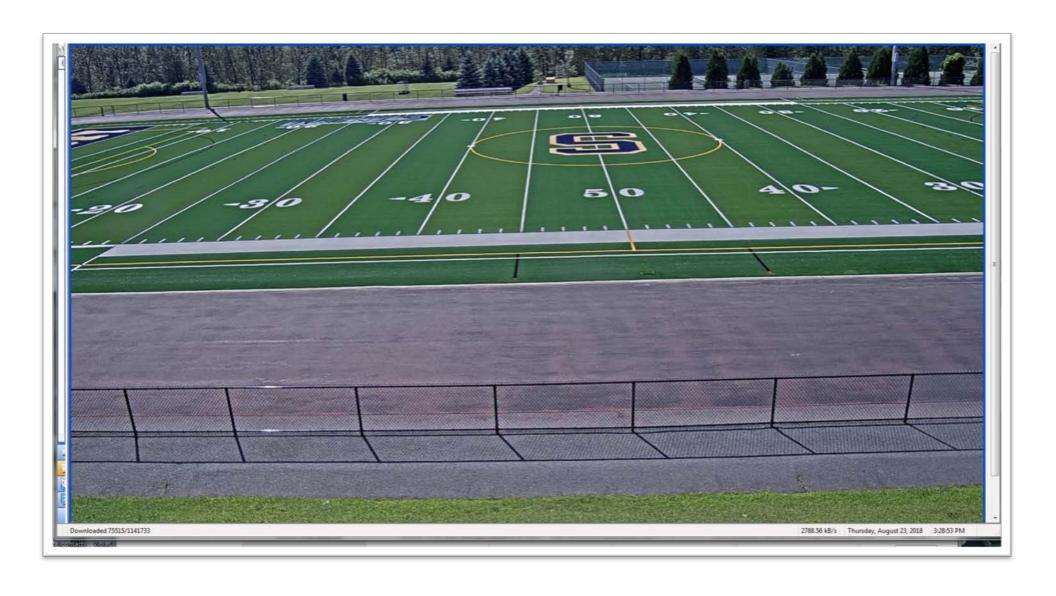
















Related Projects

- Additional scoreboard with video capacity
- Major donor wall of recognition
- Brick donor "plaza"
- Donor naming rights signage
- New ticket booth
- Re-landscape of area behind concession stand

Budget Status [as of 8/20/2018]

REVENUE

Donor Funds	\$1,741,559
Town Funds	\$ 285,886
Total Avail.	\$2,027,445

- -We are "on budget" as of this point.
- -We continue to receive donations and interest in naming rights for certain areas of the complex.

EXPENSES

Base Bid	\$1,123,000
Alt#1: Football and Soccer Goals	\$ 15,900
Alt#2: Replace fencing	\$ 40,250
Net Change Orders	\$ 31,030
Synthetic Turf	\$ 562,118
Scoreboard, donor signage, bricks and installation	\$ 195,000 est
Rem. Contingency	\$ 56,000
Total Projected Costs	\$2,023,298

Athletic Schedules Impact

- Fall sports schedules were devised by the Athletic Director in the spring 2018 anticipating that our stadium field would be unavailable at the beginning of the season.
- Thus, many away games are scheduled for football, soccer, and field hockey.

Athletic Schedules Impact

- The track portion of the project is delayed to weather caused by substantial amount of rainy days in August.
- The projected start timeframe is mid-late
 September.
- It takes 2-3 weeks from start to finish and again this schedule will be impacted by weather.

Athletic Schedules Impact

- Once the turf field is finally accepted, the Athletic Director will coordinate use for a small number of games and practices prior to the track project starting.
- Once the track contractor mobilizes on site, there can be no use of the turf field. So, the late September and early October schedules will be impacted as well.

Dedication Ceremony

- The date has not yet been finalized but is likely to occur in late October.
- We will invite and honor all donors.
- We plan to have all projects completed by this timeframe.

Other Summer Facility Projects

- 86 additional parking spaces at SHS
- Typical re-finishing of gym floors
- Painting at Parker Road Preschool
- New carpeting in Oak Middle School office area



ITEM NO: VII. Finance & Operations MEETING DATE: 8/29/18

B. Campaign for Shrewsbury Athletic Fields: Vote to Accept Gifts

BACKGROUND INFORMATION:

Per School Committee Policy 911, gifts of \$5,000 or more must be formally accepted by the School Committee. The following gifts are being made to support the Campaign for Shrewsbury Athletic Fields:

Flint Pond Village – \$5,000 Lamoreaux Pagano & Associates – \$5,000 Tom & Barbara Peters/Mid State Kitchens – \$5,000

ACTION RECOMMENDED:

That the School Committee vote to accept gifts of \$5,000 each from Flint Pond Village, Lamoreaux Pagano & Associates, and Tom & Barbara Peters/Mid State Kitchens for the Campaign for Shrewsbury Athletic Fields.

AVAILABLE FOR PRESENTATION:

Mr. Patrick C. Collins, Assistant Superintendent for Finance & Operations



ITEM NO: VII. Finance & Operations MEETING DATE: 8/29/18

C. Fiscal Year 2019 State Aid: Report

BACKGROUND INFORMATION:

Over the summer, the Massachusetts Legislature finalized the state's Fiscal Year 2019 Budget, which was signed into law by Governor Baker. Mr. Collins will provide an update regarding the state aid the school district will be receiving in the final version of the state budget.

ACTION RECOMMENDED:

That the School Committee hear the report and take whatever steps it deems necessary in the interests of the Shrewsbury Public Schools.

AVAILABLE FOR PRESENTATION:

Mr. Patrick C. Collins, Assistant Superintendent for Finance & Operations



Security Portal (https://gateway.edu.state.ma.us/) | A-Z Index (/resources/A-Zindex.aspx) | Select Language

▼ Powered by Google Translate (https://translate.google.com)

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School Finance and District Support

FY19 Update on State Aid Programs for Elementary and Secondary Education

August 1, 2018

The Governor has signed the fiscal year 2019 budget and the legislative session has ended. Here is a summary of the major provisions relating to state aid for elementary and secondary education.

Chapter 70

The FY19 state budget that allocates \$4,907,573,321 in Chapter 70 education aid to Massachusetts school districts. This budget increases aid by \$161 million or 3.4 percent over FY18. Every operating district receives at least \$30 in additional aid per student, and 133 operating districts receive increases so that they can keep pace with increases in their foundation budgets.

Special Education Circuit Breaker

The circuit breaker program has been funded at \$319,345,293, an increase of \$38.1m from last year's funding. Claim forms for FY18 expenses were due July 2nd. Claims will be reviewed as they are received, and initial payments will be made this fall. We plan to post reimbursement information by mid-September. We expect the reimbursement rate for the initial payments this year will be approximately 72 percent. After we have posted the reimbursement information, we will announce the districts that will be audited this year as required by statute.

In addition to the reimbursement of FY18 expenses, \$5 million will be available for payments to districts experiencing extraordinary increases in their eligible FY19 expenses

Charter School Tuition Reimbursement

The appropriation for charter school tuition is \$90,000,000, which is 50.0 percent of the full entitlement. Of the amount appropriated, \$39.8 million represents facilities aid, which is funded at 100 percent and \$47.8 million covers 61.5 percent of the first year increase in tuition; the remaining five years of reimbursements are not funded

The individual district amounts will change throughout the year as enrollment and tuition rates are finalized.

Regional and Vocational Transportation

Funding for regional school transportation funding was increased to \$68,878,679, a \$7.3m increase over FY18 and non-resident vocational transportation was funded at \$250,000, anincrease of \$7,500 from FY18. Payments will be made to districts based on reported expenses on the FY18 end of year financial returns. Final reimbursement percentages in FY18 were 71.3 percent for regional transportation and 5.7 percent for non-resident vocational. Reimbursements for regional transportation in FY18 will likely be between 73 percent and 75 percent, while the reimbursement percentage for non-resident vocational transportation will likely be approximately 5 percent. Final percentages will be calculated after we have received and processed all districts' end of year returns.

Homeless Transportation

The appropriation for homeless transportation reimbursement was funded at \$9,099,500 an increase of \$1m from FY18. Payments will be made to districts based on reported expenses on the FY18 end of year financial returns. The final reimbursement percentage in FY18 was 33.48 percent for homeless transportation. The FY19 line item funding will enable us to reimburse districts between 34-36 percent.

Last Updated: August 7, 2018

About this Site

A-Z Site Index (/resources/A-Zindex.aspx)

Policies (/resources/policy.html)

Site Information (/resources/howto.html)

Contact Webmaster (mailto:eoewebservices@doe.mass.edu)

Most Requested

C.S. 1-EC Commonwealth of Massachusetts Department of Revenue FY2019 NOTICE TO ASSESSORS OF ESTIMATED CHARGES

General Laws, Chapter 59, Section 21 Shrewsbury

A. COUNTY ASSESSMENTS:	
County Tax	0
Suffolk County Retirement	0
Essex County Reg Comm Center	0
Sub-Total, County Assessments:	0
B. STATE ASSESSMENTS AND CHARGES:	
Retired Employees Health Insurance	0
Retired Teachers Health Insurance	0
Mosquito Control Projects	
Air Pollution	79,922
Metropolitan Area Planning Council	11,974
Old Colony Planning Council	0
RMV Non-Renewal Surcharge	0
Sub-Total, State Assessments:	22,020
C. TRANSPORTATION AUTHORITIES:	113,916
MBTA	
Boston Metro. Transit District	170,066
	0
Regional Transit	75,752
Sub-Total, Transportation Assessments:	245,818
D. ANNUAL CHARGES AGAINST RECEIPTS:	
Special Education	3,353
STRAP Repayments	0
Multi-Yr Repayment	0
Sub-Total, Annual Charges Against Receipts:	3,353
E. TUITION ASSESSMENTS:	
School Choice Sending Tuition	256,161
Charter School Sending Tuition	389,534
Sub-Total, Tuition Assessments:	645,695
E TOTAL ESTIMATED OUT DOOR	0.10,000
F. TOTAL ESTIMATED CHARGES:	1,008,782

C.S. 1-ER Commonwealth of Massachusetts Department of Revenue FY2019 NOTICE TO ASSESSORS OF ESTIMATED RECEIPTS

General Laws, Chapter 58, Section 25A Shrewsbury

A. EDUCATION:	
Distributions and Reimbursements:	
Chapter 70	40.007.050
	19,887,358
School Transportation	0
Charter Tuition Reimbursement	24,111
Smart Growth	0
Offset Items – Reserve for Direct Expenditure:	
School Choice Receiving Tuition	145,604
Sub-Total, All Education Items:	20,057,073
B. GENERAL GOVERNMENT:	
Distributions and Reimbursements:	
Unrestricted General Government Aid	2,880,275
Local Share of Racing Taxes	0
Regional Public Libraries	0
Urban Revitalization	0
Veterans Benefits	113,841
Exemp: VBS and Elderly	99,186
State Owned Land	121,438
Offset Item - Reserve for Direct Expenditure:	
Public Libraries	48,734
Sub-Total, All General Government:	3,263,474

23,320,547

C. TOTAL ESTIMATED RECEIPTS:

FY19 Budget: State Aid and Charges Update

PATRICK C. COLLINS
29 AUGUST 2018

Purpose of Report

• The annual operating budget process <u>necessarily</u> <u>involves making estimates</u> for state aid and charges because the overall Town/School budget is finalized in May at Town Meeting but the state budget process is not complete until July each year.

• This report compares the estimates to the actual amounts finalized in the state budget process.

General Fund [Town] Receipts

Category	Budget	Actual/Updated Estimate	Variance
Chapter 70 Education Aid	\$19,887,358	\$19,887,358	\$o
Charter School Reim.	\$ 24,111	\$ 24,111	\$o
Vocational Transportation Reim.	\$ 0	\$ 9,198	\$ 9,198
Homeless Student Transportation Reim.	\$0	\$ 17,738	\$17,738
		Net Aid/Reim. Beyond Budget	\$26,936

General Fund [Town] Charges

Category	Budget	Actual/Updated Estimate	Variance
School Choice- Sending Tuition	\$175,000	\$256,161	\$81,161
Charter School- Sending Tuition	\$368,724	\$389,534	\$20,810
		Net Charges Beyond Budget	\$101,971

School Dept. Receipts

Category	Budget	Actual/Updated Estimate	Variance
Circuit Breaker Reim.	\$3,005,000	\$3,036,064*	\$31,064
School Choice- Receiving Tuition	\$135,000	\$145,604	\$10,604
*Based on unaudited Net Claim submitted July 2018		Net Aid/Reim. Beyond Budget	\$41,664

Summary

- The actual FY19 state aid and charges amounts budgeted by the Town Manager and School Department are very close to the actuals/updated estimates published at the completion of the state budget process.
- There are *de minimus* variances that will not impact our budget plans.



ITEM NO: VII. Finance & Operations MEETING DATE: 8/29/18

D. Fiscal Year 2019 Grants: Report & Vote to Accept

BACKGROUND INFORMATION:

Federal and state entitlement grants are an important source of funding for our school operations. Entitlement grants are established and allocated at the state and federal level. Entitlement grants are noncompetitive and are awarded automatically on the basis of defined formulas that differ by grant.

The report will include a summary of State and Federal Entitlement Grants.

ACTION RECOMMENDED:

That the Committee vote to accept all FY18 grant funds noted in the enclosed chart and use such funds for their intended purpose.

AVAILABLE FOR PRESENTATION:

Mr. Patrick C. Collins, Assistant Superintendent for Finance & Operations



Shrewsbury Public Schools

Patrick C. Collins, Assistant Superintendent for Finance & Operations

23 August 2018

To: School Committee

Subj: RECOMMENDATION TO ACCEPT FY19 FEDERAL GRANTS

Background

Federal and state entitlement grants are an important source of funding for our school operations. Entitlement grants are established and allocated at the state and federal level. Entitlement grants are noncompetitive and are awarded automatically on the basis of defined formulas that differ by grant. This report will show the amount [\$1.83M] of funding we are receiving for Fiscal Year 2019 (FY19), i.e., the 2018-2019 school year, and it also provides a five-year history. While relatively small in comparison to the appropriated budget of \$64.1M, state and federal grants provide valuable resources for a wide variety of student supports and staff development.

In FY17, funding for our two state grants was completely eliminated, so now we are receiving only federal education grant funding. As of the date of this report, we will be receiving \$183,056 less than FY18, primarily as a result of a significant decrease in Title 1 funding.

Process

Having received the allocation amounts in late July, the district must submit detailed program plans and associated budgets to the Massachusetts Department of Elementary and Secondary Education who oversees the administration and disbursement of funds on a statewide basis. Once our plans are approved, we can begin expending funds and submitting for monthly reimbursement of expenses. The Business Office is responsible for handling all monthly cash requisitions using the state's online grants management system.

Recommendation

In closing, grant funds play an important role in the overall financing of public education in Shrewsbury. Each grant comes with a specific purpose, compliance and reporting requirements, and accountability for use of the funds.

It is recommended that the School Committee vote to accept the funds using the following motion:

"I move that the Committee accept all FY19 grant funds noted in the enclosed chart and use such funds for their intended purpose"

SHREWSBURY PUBLIC SCHOOLS FEDERAL and STATE GRANT ALLOCATIONS AS OF 8.23.2018

\$85,455 \$28,420 \$7,950 \$1,424,658	\$86,287 \$30,045 \$0	\$84,280 \$29,580 \$822	\$106,953 \$32,474	\$89,949 \$28,433	(\$17,004) (\$4,041)	\$4,494 \$13	F
\$7,950		,	\$32,474	\$28,433	(\$4,041)	\$13	E
	\$0	\$822					
\$1,424,658			\$803	\$0	-\$803	-\$7,950	F
	\$1,408,178	\$1,460,831	\$1,485,349	\$1,460,644	(\$24,705)	\$35,986	F
\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	F
\$33,934	\$33,890	\$33,573	\$31,868	\$33,342	\$1,474	(\$592)	F
\$47,463	\$47,846	\$47,846	\$0	\$0	\$0	(\$47,463)	F
\$8,000	\$3,000	\$2,250	\$0	\$0	\$0	(\$8,000)	F
\$189,672	\$337,755	\$206,874	\$358,371	\$199,622	(\$158,749)	\$9,950	F
\$0	\$0	\$0	\$5,297	\$26,069	\$20,772	\$26,069	F
\$9,500	\$6,700	\$0	\$0	\$0	\$0	(\$9,500)	s
\$79,800	\$62,380	\$0	\$0	\$0	\$0	(\$79,800)	s
	\$2,016,081	\$1,881,056	\$2,021,115				
	\$47,463 \$8,000 \$189,672 \$0 \$9,500	\$47,463 \$47,846 \$8,000 \$3,000 \$189,672 \$337,755 \$0 \$0 \$9,500 \$6,700 \$79,800 \$62,380	\$47,463 \$47,846 \$47,846 \$8,000 \$3,000 \$2,250 \$189,672 \$337,755 \$206,874 \$0 \$0 \$0 \$9,500 \$6,700 \$0 \$79,800 \$62,380 \$0	\$47,463 \$47,846 \$47,846 \$0 \$8,000 \$3,000 \$2,250 \$0 \$189,672 \$337,755 \$206,874 \$358,371 \$0 \$0 \$0 \$5,297 \$9,500 \$6,700 \$0 \$0 \$79,800 \$62,380 \$0 \$0	\$47,463 \$47,846 \$47,846 \$0 \$0 \$0 \$0 \$0 \$8,000 \$3,000 \$2,250 \$0 \$0 \$0 \$189,672 \$337,755 \$206,874 \$358,371 \$199,622 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$47,463 \$47,846 \$47,846 \$0 \$0 \$0 \$0 \$8,000 \$3,000 \$2,250 \$0 \$0 \$0 \$189,672 \$337,755 \$206,874 \$358,371 \$199,622 (\$158,749) \$0 \$0 \$0 \$0 \$5,297 \$26,069 \$20,772 \$9,500 \$67,700 \$0 \$0 \$0 \$0 \$0 \$79,800 \$62,380 \$0 \$0 \$0 \$0	\$47,463 \$47,846 \$47,846 \$0 \$0 \$0 \$0 \$0 \$47,463] \$8,000 \$3,000 \$2,250 \$0 \$0 \$0 \$0 \$8,000] \$189,672 \$337,755 \$206,874 \$358,371 \$199,622 \$26,069 \$0 \$0 \$0 \$5,297 \$26,069 \$20,772 \$26,069 \$9,500 \$6,700 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,000]

Note: Fluctuations in annual Title 1 funding [State Code 305] are due to changes in Shrewsbury's "students in poverty level" that go over or under the 5% threshhold. When we are at 5% or greater, we receive an additional allocation of funding. When we fall below 5%, we do not receive the additional funding.



MEETING DATE:	8/29/18
TATION:	
	MEETING DATE:



ITEM NO: IX. New Business	MEETING DATE:	8/29/18
BACKGROUND INFORMATION:		
ACTION RECOMMENDED:		
STAFF AVAILABLE FOR PRESENTATION:		



ITEM NO: X.	Approval of Minutes	MEETING DATE:	8/29/18
BACKGROUND	O INFORMATION:		
The minutes are	enclosed.		
ACTION RECO	MMENDED:		

That the Committee accept the minutes from the School Committee Workshop held on August 22, 2018.

AVAILABLE FOR PRESENTATION:

Mr. Jason Palitsch, Chairperson Ms. Sandra Fryc, Secretary

SHREWSBURY PUBLIC SCHOOLS 100 MAPLE AVENUE SHREWSBURY, MASSACHUSETTS

MINUTES OF SCHOOL COMMITTEE WORKSHOP Class of 2002 Conference Room Shrewsbury High School 64 Holden Street Shrewsbury, Massachusetts

Wednesday, August 22, 2018

Present: Mr. Jason Palitsch, Chairperson; Ms. Erin Canzano, Vice Chairperson; Ms. Sandra Fryc, Secretary; Dr. Dale Magee; Mr. Jon Wensky; Dr. Joseph Sawyer, Superintendent of Schools; Ms. Amy Clouter, Assistant Superintendent for Curriculum, Instruction, & Assessment; Ms. Barb Malone, Director of Human Resources; Mr. Patrick Collins, Assistant Superintendent for Finance & Operations; and Ms. Meg Belsito, Director of Special Education & Pupil Personnel Services

Workshop was opened by Mr. Palitsch at 3:05 pm.

Topic I

Dr. Sawyer updated the Committee on summer work by administration:

- 1) Summer Institute (June 25-28): This was a professional development institute held at Shrewsbury High School in partnership with the Westborough Public Schools. Thirteen courses were offered, as well as three keynote lectures by presenters on the topics of personalized learning, universal design for learning (inclusive practice), and engaging diverse learners. These topics connect to the district's strategic priorities.
- 2) School Leadership Team Summer Leadership Conference (July 24-26): The School Leadership Team (SLT), including Central Office administrators and principals, met for their annual leadership retreat. The team read the book The Culture Code: The Secrets of Highly Effective Groups by Daniel Coyle. The group discussed the book's themes and how they could apply to their work in strengthening the culture of the district and our schools.

The group completed its year-long participation in the DESE course on Inclusive Practice to build on best practices for including students with learning and other differences.

The group discussed the best process for moving forward with strategic priorities and district goals in the coming year, and how to communicate these priorities to various stakeholders in the district

3) District Leadership Workshop (August 21): The District Leadership Team (DLT), which consists of all administrators and curriculum leaders across the district met for their annual workshop. Ms. Clouter and Dr. Sawyer facilitated the agenda, which focused on how to build even stronger cultures in our schools and departments using the themes from The Culture Code as a framework. Dr. Sawyer asked the DLT members to use Twitter as a means for communication to emphasize the district's strategic vision and goals while also highlighting the excellent work of students and educators.

The group also discussed the DLT meeting structure and content for the upcoming year to best meet the needs of the team and provide district leadership with the opportunity to continuously build leadership capacity, as well as work together to advance the district's strategic priorities and goals.

During each of the summer leadership meetings the issue of stress was raised and discussed. There is consensus that a variety of factors are making work in public schools more stressful for educators, support staff and administrators. Attending to the culture of the district is an antidote to stress. The work over the past summer has been focused on determining ways to strengthen the culture of the district. SPS currently utilizes many of the approaches Coyle discussed in his book, but there is room for improvement and this will require action by the district.

Topic II

Dr. Sawyer provided the Committee with a memo listing the potential School Committee meeting topics for 2018-2019. The Committee provided the following guidance:

- Grouping of reports when covering similar topics
- Focus on concise presentations that leave more time for Q&A with Committee members
- Increased use of graphs and charts

The group also discussed that presentations made to the Committee are opportunities for the public to learn about topics or issues of importance in the district. The Committee members receive very detailed reports in their meeting packets and presentations to the Committee should not be so brief that the public is not provided with complete information.

Topic III

Mr. Collins provided the Committee with the FY18 Year End Fiscal Results. Due to fluctuations in FY18 Circuit Breaker Reimbursement that provided more funding to the district than originally projected, combined with favorable year-end balances in some accounts where expenses came in below projections, there is \$780,000 more in the Circuit Breaker funding account than projected at the district enters Fiscal Year 2019. This funding will allow the district to avoid the planned paraprofessional staff reductions totaling \$250,000 that were included in the

final FY19 budget reduction plan. This would provide a net of \$530,000 in additional funds if all other budget assumptions were to hold constant.

Mr. Collins and Ms. Belsito discussed with the group the unpredictable nature of some costs, including special education expenses, that might occur during the upcoming school year. The additional funds will help stabilize and insulate the district's operations from unexpected costs that might arise.

Topic IV

Without objections from the Committee, the minutes from the School Committee workshop meeting held on August 1, 2018 were approved to be distributed.

Topic V – Executive Session

Mr. Palitsch requested a motion to adjourn to executive session for the purpose of reviewing and approving Executive Session Minutes, and negotiations with the Shrewsbury Paraprofessional Association, where deliberation in an open meeting may have a detrimental effect on the bargaining position of the public body, and to reconvene to open session only for the purpose of adjournment for the evening. On a motion by Ms. Canzano, seconded by Mr. Wensky, on a roll call vote: Dr. Magee, yes; Ms. Canzano, yes; Ms. Fryc, yes; Mr. Wensky, yes; Mr. Palitsch, yes, the School Committee voted to adjourn to executive session at 4:18pm.

Adjournment

On a motion Ms. Canzano, seconded by Mr. Wensky, the meeting was adjourned at 4:32 pm. On a roll call vote: Dr. Magee, yes; Ms. Canzano, yes; Ms. Fryc, yes; Mr. Wensky, yes; Mr. Palitsch, yes.

Respectfully submitted,

Ms. Sandra Fryc, Secretary

Documents Referenced:

August 22, 2018 – Memo: Update on summer work by administration

Memo: Potential School Committee Meeting Topics 2018-219

August 21, 2018 – Memo: FY18 Year End Fiscal Results

August 1, 2018 School Committee Workshop Meeting Minutes



ITEM NO: XI. Executive Session	MEETING DATE:	8/29/18
BACKGROUND INFORMATION:		
ACTION RECOMMENDED:		
STAFF AVAILABLE FOR PRESENTATION:		
ITEM NO: XII. Adjournment		