



2019 - 2023
Capital Improvement Plan



Township of
FERGUSON
Pennsylvania

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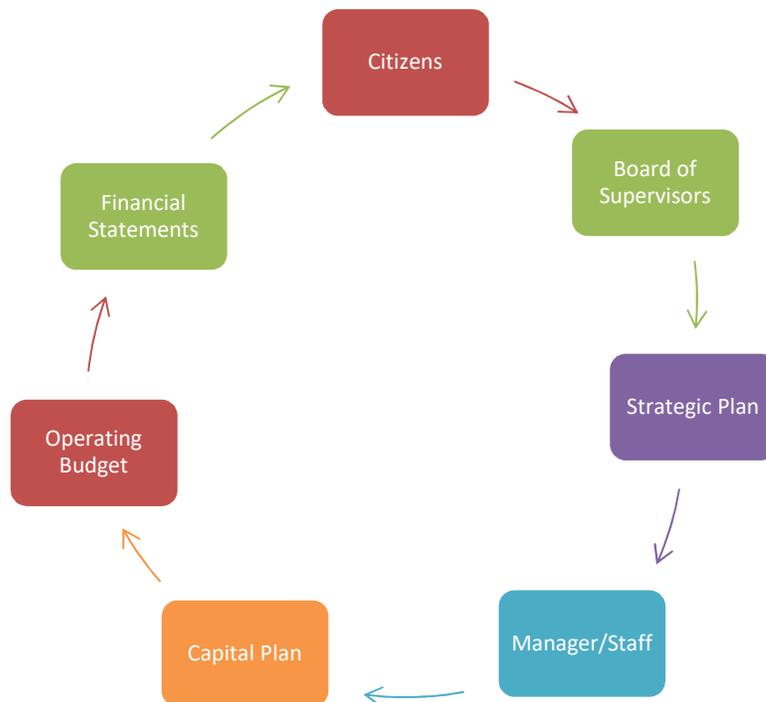
Chapter 1: Introduction

Who should read this document?

The Township's Capital Improvement Plan (CIP) is a financial guide for citizens, staff and the Board of Supervisors. The purpose of this document is to communicate the initiatives planned in the next five years. This is a financial plan, rather than the official budget. It is used to provide financial information for management to make decisions related to sustainability, future projects and revenues. The plan accounts for the Township's anticipated revenue from various sources such as income taxes, property taxes and intergovernmental revenue. It also reflects how these resources will be used. The reader will also find Township background information, the Vision Statement, the Mission Statement and Values Statement.



The financial cycle including the Capital Improvement Plan shown below depicts the various stages of the financial cycle for the township.



Strategic Planning



Strategic planning is an organizational management activity that is used to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/results, and assess and adjust the organization's direction in response to a changing environment. It is a disciplined effort that produces fundamental decisions and actions that shape and guide what an organization is, who it serves, what it does, and why it does it, with a focus on the future. Effective strategic planning articulates not only where an

organization is going and the actions needed to make progress, but also how it will know if it is successful. Without planning, the township would be spinning in circles with no clear idea of how to serve the public effectively.

The Township's Strategic Plan is updated every three to five years. Given the five-year forecast that the CIP offers, the term of the Strategic Plan fits well with the goals of the Township. Given the rapid changes affecting society as a whole and service delivery demands, attempting to plan beyond five years is difficult at best and subject to substantial changes and risks. The Strategic Plan is an integral part of the CIP and provides important guidance for funding of township goals. Components of the Strategic Plan are incorporated throughout this document.

The strategic plan provides long-term direction defined by the Elected Officials and the CIP interfaces directly with the financial needs originated by the Strategic Plan.

Ferguson Township updated its Strategic plan in 2016 to reflect the current priorities of the township stakeholders. This update is included throughout the document.

How does the Strategic Plan guide the preparation of the CIP?

Ultimately, the CIP is used to focus funding towards the goals of the Strategic Plan. Without this close relationship between the strategic plan and the CIP, it is highly likely that taxpayer resources may be used for short-term needs rather than in conjunction with a long-term strategy.

The Strategic Plan hierarchy elements tie to the CIP in several ways.

- **Goals** are statements of vision identified by staff and elected officials as desirable outcomes for the Township to reach.
- **Objectives** are measurable, definable achievements that must be attained prior to accomplishing or advancing a goal.
- Beginning in 2016, the current Strategic Plan has been revised. The following goals guide the preparation of the CIP:

2016 Strategic Plan Goals

Financial Stability

- Make realistic estimates of program costs. (Staff)
- Regularly compare the cost of providing services in-house with costs from private contractors, other municipalities, other government agencies, and costs of providing services regionally. (Staff)
- Adjust revenues (taxes, fees, etc.) to adequately fund Township programs and needs. (Staff proposes, the Board initiates)

Economic Development

- Establish an economic development advisory group (with economic development expertise).
- Consider the employment of an economic development director (full-time, part-time, or a contracted service). This individual or contractor would be responsible to assist and support existing businesses to help them prosper and expand in Ferguson Township. He/she would be the Township's liaison with the business development community. He/she would develop an inventory of vacant commercial and industrial sites and would make that information available to interested parties. He/she would identify and pursue programs and grants to support economic development in Ferguson and would have responsibility for managing the Community Development Block Grant Program. (Board to initiate, staff to implement)

Growth Management

- Identify and complete (develop) plans for specific small areas. (Board, Staff, Planning Commission)
- Develop a future land use plan (Comprehensive Plan). (Staff, Planning Commission, Board)
- Develop a Township housing plan to provide for low and moderately priced housing in the Township (workforce housing). (Staff, Regional input, possible ad hoc advisory group)

Environmental Stewardship

- Identify and use existing tools to preserve the environment - Chesapeake Bay Tributary strategy, National Pollutant Discharge Elimination System, source water protection, conservation easements, climate action plans, referendums, agricultural conservation easements, etc. (Board, Staff)
- Make certain that land development regulations and development plans are consistent with environmental values (Staff, Planning Commission, Board)
- Identify and preserve natural resources and environmentally significant areas (Staff, Board, Planning Commission, possible ad hoc advisory group)
- Develop and adhere to a green policy for buildings, vehicles, and operations (Staff, consultants)
- Update the Recreation, Parks, and Open Space Plan with a specific emphasis on green infrastructure and sustainable parkland development

Best Management Practices for Operations

- Ensure adequate staffing and resources necessary to carry out Township services and programs (Staff, Board)
- Ensure proper training and professional development (Staff, Board)
- Ensure that operational practices are fiscally responsible (Staff)

Increase Participatory Government

- Utilize both ad hoc and standing citizen advisory boards with subject matter experts from the Township and the region to address issues related to parkland development and other matters of community interest.”
- Fully utilize two-way communication and online platforms used to communicate (Staff)

Promotion of Clean Renewable Energy

- Assess the Township for opportunities for renewable energy (Staff, possible advisory group)
- Practice and promote energy conservation (Staff, Board)
- Establish zoning incentives to encourage renewable energy and energy conservation (Staff, Board, Planning Commission, possible ad hoc advisory group)
- Establish an advisory group on renewable energy (Staff, Board)

Promotion of Municipal Identity

- Develop our Sense of Place by developing a vibrant Town Center, preserving our agricultural heritage, and promoting the features that make the Township unique. (Staff)
- Develop a Marketing Strategy (possible advisory group)
- Establish and promote community events with Township help/promotion (farmer's markets, flea markets, etc.)

Partnerships and Regional Thinking

- Identify non-profits, businesses, and community groups for input on a variety of issues
- Work towards regional cooperation on issues that affect the entire Centre Region
- Increase financial stability through partnerships
- Monitor partnerships to ensure they continue to be beneficial

What is Capital Planning and how does it differ from Strategic Planning?

Simply put, capital planning is a component of the budgeting process. Capital items are generally considered to be one-time long-term investments (rather than ongoing expenses) in equipment or fixed assets that are costly. Such assets improve productivity, reduce operating costs, or improve service delivery. Typically, there is an expected return on the investment for the cost to make financial sense.

Whereas the Strategic Plan identifies the desired future outcomes of the Township goals and the objectives, the Capital Plan puts financial resources to those objectives in order to fulfill those goals. While some outcomes are purely non-financial, the vast majority of outcomes require investment in order to see them to completion. Capital Planning attempts to focus financial resources on specific outcomes. This is the basis of the Capital Improvement Plan (CIP). This plan is updated annually in order to maintain its relevance and to prevent it from getting stale.

What is the Capital Improvement Plan (CIP)?

The CIP is a five-year plan forecasting the financial requirements in order to fulfill the capital needs of the township. In order to provide an accurate forecast of the township in its entirety, operational costs are included as part of the summary sections. These are not detailed as the capital components.

The township CIP also includes projected staffing changes since personnel costs make up over 45% of the General Fund budget and have a long-term impact on the finances of the township.

Defining what is to be included in the CIP is critical to narrowing down the number of items to be considered during the creation and reviews of the plan.

The township has defined a capital asset as one with an initial cost exceeding \$2,500 each and will have a lifespan of longer than one year.

Why do we need a Capital Improvement Plan?

Governments are tasked with providing services to the public in a cost-efficient manner. Because public funds are used, some measure of accountability of taxpayer funds is required. The CIP serves as a means to accomplish this goal by advance planning for the construction and development of the township's infrastructure asset base. The Administrative Code requires the preparation of the Capital Improvement Plan on an annual basis. In 1991, the Township Board of Supervisors adopted the first modern Capital Improvement Program Budget.

How does the Township Mission, Vision and Values guide the preparation of the CIP?

2018 Ferguson Township Board of Supervisors



Chairman
Peter Buckland
Ward II

Vice Chairman
Steve Miller
Supervisor-at-Large

Laura Dininni
Ward I

T. Tom Ricciardi
Supervisor-at-Large

Sara Carlson
Ward III

The staff of Ferguson Township is guided in its decision-making by several documents, some of which have been outlined in detail here. The township's ordinances, resolutions, budgets, comprehensive plan, and the CIP are all examples of guiding documents that staff utilize on a daily basis to help allocate resources, capital and otherwise, to provide effective services. However, with all of these supporting documents several questions remain.

How do we know our actions today are leading towards where residents want the township to be in the coming years? How can we be sure that our resource allocation is advancing the township's mission and vision? How are the decisions we make on a staff level related to the goals of our elected officials?

The Mission and Vision Statements help guide staff in determining the direction of the township operations. The Mission Statement defines the general purpose of the township. The Vision Statement defines the general philosophy of the township. The Values guide staff in appropriate behavior as township employees. Together, the Mission, Vision and Values determine what is important to the township and how staff should allocate time and resources.

Our Mission

It is Ferguson Township's mission to provide efficient, cost-effective, professional services to our residents in a fair, cooperative, ethical and honest manner. The Township will endeavor to manage its resources allowing planned, sustainable growth while preserving the quality of life and its unique characteristics.

Our Vision

The Township will strive to appropriate staff and resources to maintain the infrastructure in acceptable condition, provide exemplary service, keep Township operations financially stable and keep pace with technology. As a result, the Township can continue to be a leader and model for the Centre Region and other Home Rule municipalities.

The Township is considered a 'Best Place to Live' due to the high quality of life created in part through a sense of place achieved through the development of a vital town center, a strong diversified community, an effective transportation system, a rural/small town atmosphere and the location and availability of open space. The Township will continue to preserve environmentally sensitive areas.

We Value...

Effective, efficient, professionalism in delivering services to our residents. Residents, elected and appointed officials expect the highest quality service delivery from Township staff. It is our duty to meet and exceed those expectations in our daily work.

Preserving the unique character of the Township. The Township proudly boasts a diverse community of all ages and professions including farmers, scholars, small and large business employers and employees, professionals, and students. Each group gives the area a character all its own. It is our responsibility to ensure that policies and service delivery are directed at maintaining that character for generations to come.

A well-maintained and safe environment. Every resident and guest deserves to live, work, study, and recreate in a high-quality environment. Therefore, it is our responsibility to properly maintain and provide for the safety of our community's neighborhoods, streets, parks and common areas.

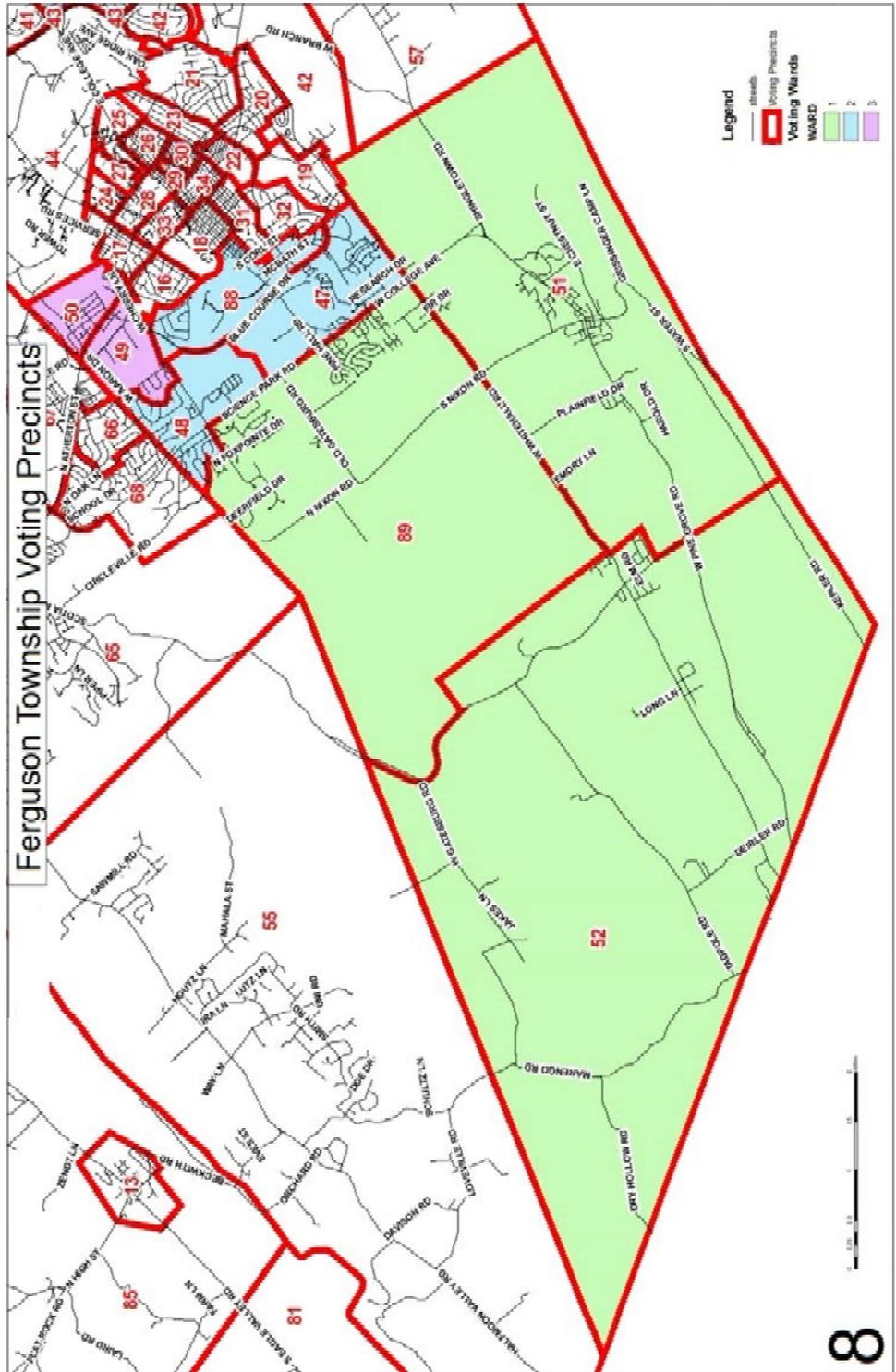
Managing our resources wisely. It is recognized that resources, including tax revenue, public utilities such as water and sewer, and services such as police and fire, are finite and must be allocated in the most efficient manner. It is our responsibility to continuously review and refine our practices to improve the management of public resources to provide the highest quality service delivery.

Collaborating with our neighboring municipalities to provide cost-effective services. The Centre Region is home to one of the premier and oldest Council of Governments in the Commonwealth. For decades, the municipalities that comprise the Centre Region have recognized the benefits of regional cooperation to improve the effectiveness and efficiency of service delivery. It is our responsibility to maintain our commitment to the Centre Region Council of Governments and neighboring municipalities for programs where regional cooperation maximizes our return on investment.

Ethical and honest behavior. As elected officials and employees of the Township, every official, employee and service provider to the Township is directly accountable to conduct themselves in an ethical and honest manner. It is our responsibility to ensure that all who perform work for the Township operate with the highest standards of ethical and honest behavior.

VOTING WARDS

Following is a map of the township voting wards representing the residents.



OFFICIAL TOWNSHIP MAP



Chapter 2: Summary

Plan Summary

This section provides an overview of fund balances, revenues and expenditures for all funds except pension funds. The overview breaks out capital expenditures from operations. Operational costs are included in this section in an effort to project the effects on fund balances over the term of the plan. Without sufficient financial resources and fund balances, the plan would not be feasible.

For the five years ending in 2023, the Township proposes spending **\$107 million (including \$26 million in interfund transfers) \$81 million net** for all governmental funds. Since interfund transfers are internal transfers between funds, they can be deducted from the total in summary reports. Government funds do not include pension trust funds nor the Tom Tudek Memorial Trust Fund (even though the township provides funding for park projects).

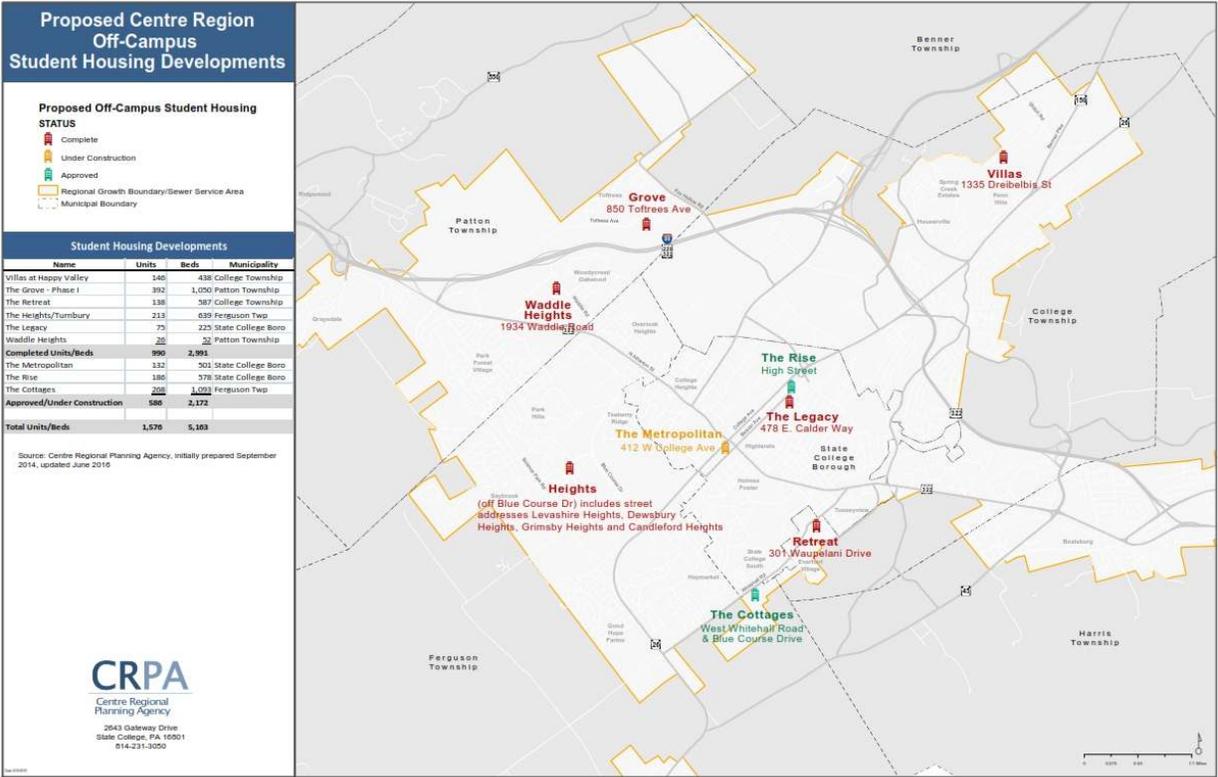
Please be aware that for budgeting purposes, amounts are estimated and rounded where possible. It is not possible to obtain exact amounts over 12 months in advance. Vendor pricing is generally only valid for 60 or 90 days. Beyond that, amounts are only estimates of expected pricing.

Demographics



The township encompasses an area of approximately 50 square miles and is home to nearly 19,000 residents. Several high-tech industries have found a home in Ferguson Township over the years including AccuWeather, Minitab, Sound Technology, Videon, and Avail Technologies. The township is also home to major research facilities of The Pennsylvania State University, one of the nation's premier agricultural and engineering institutions. The demographics have a large impact on the tax revenues collected and the cost of operations. Without a growing community, township revenues would flatten while operating costs

would continue to increase leading to a strain on township resources. By smartly managing growth, the township will continue to operate soundly for many years to come.



Since tax revenues are driven by population and age, identifying the demographics and trends provides important data for revenue projections. The following tables depict the township population estimates and age groups.

Population Estimates	2019	2020	2021	2022	2023
Based on Centre Regional Planning Agency Data	19,149	19,340	19,533	19,728	19,925

The demographic breakdown, according to American Community Survey estimates for 2010-2015, the most recent available for Ferguson Township, the population breakdown by age is represented by the following table. According to the data, 67% of the township population is of working age an increase of 4% from a year ago

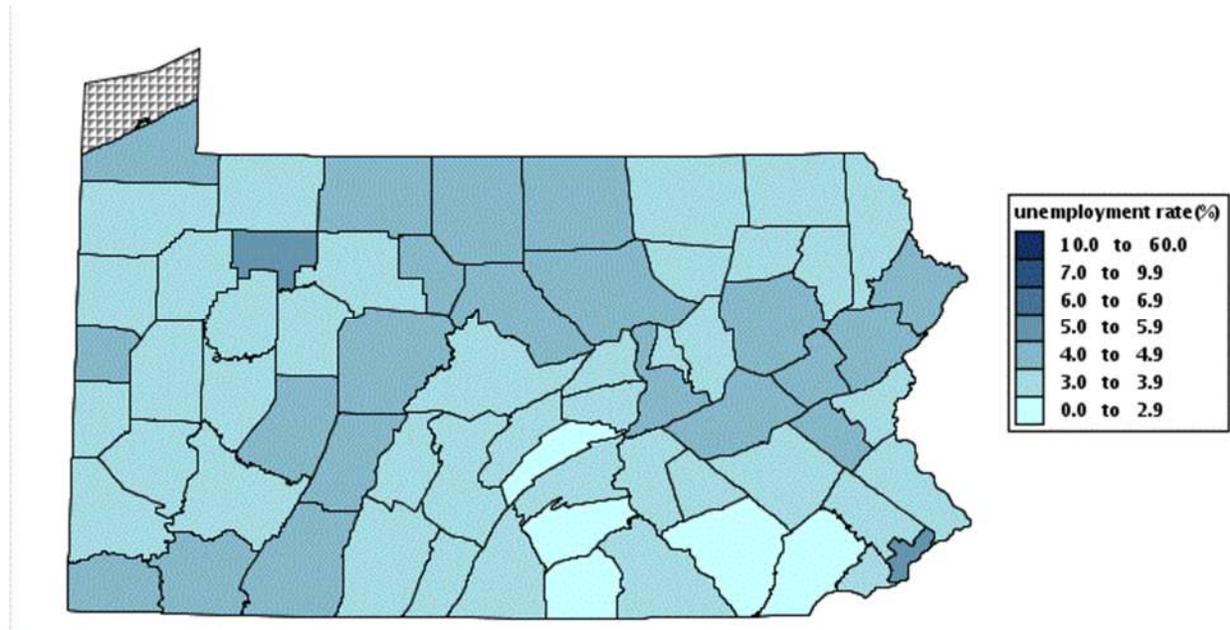
DEMOGRAPHIC TABLE 2017-2018					
Age/Sex %	Less than 5	5-19	20-59	60-64	65+
Male	2.1%	7.3%	32.1%	1.9%	6.6%
Female	2.4%	8.9%	28.8%	2.4%	7.6%
Total	4.5%	16.2%	60.9%	4.3%	14.2%

Subject	Ferguson township, Centre County, Pennsylvania					
	Total		Male		Female	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total population	18,238	+/-31	9,407	+/-512	8,831	+/-509
AGE						
Under 5 years	4.5%	+/-1.0	4.2%	+/-1.4	4.8%	+/-1.5
5 to 9 years	6.5%	+/-1.6	6.6%	+/-1.8	6.3%	+/-2.7
10 to 14 years	5.0%	+/-1.0	4.0%	+/-1.1	6.0%	+/-1.5
15 to 19 years	4.7%	+/-1.1	4.0%	+/-1.5	5.5%	+/-1.8
20 to 24 years	14.3%	+/-2.8	15.7%	+/-3.9	12.8%	+/-4.6
25 to 29 years	8.7%	+/-1.4	9.0%	+/-2.4	8.3%	+/-2.0
30 to 34 years	6.1%	+/-1.1	7.2%	+/-1.7	4.9%	+/-1.5
35 to 39 years	6.7%	+/-1.6	7.1%	+/-1.8	6.3%	+/-2.0
40 to 44 years	7.2%	+/-1.5	6.3%	+/-2.2	8.1%	+/-1.9
45 to 49 years	6.0%	+/-1.1	6.1%	+/-1.5	5.8%	+/-1.5
50 to 54 years	7.0%	+/-1.5	7.8%	+/-2.0	6.2%	+/-1.7
55 to 59 years	5.1%	+/-1.3	5.0%	+/-1.5	5.2%	+/-1.7
60 to 64 years	4.3%	+/-1.1	3.7%	+/-1.3	4.8%	+/-1.4
65 to 69 years	4.2%	+/-1.2	4.4%	+/-1.6	4.0%	+/-1.2
70 to 74 years	3.5%	+/-0.8	2.7%	+/-1.1	4.4%	+/-1.3
75 to 79 years	3.1%	+/-0.9	3.4%	+/-1.2	2.9%	+/-1.2
80 to 84 years	2.0%	+/-0.8	1.8%	+/-0.9	2.2%	+/-1.1
85 years and over	1.2%	+/-0.6	0.8%	+/-0.5	1.7%	+/-1.0
SELECTED AGE CATEGORIES						
5 to 14 years	11.4%	+/-1.9	10.6%	+/-2.1	12.3%	+/-3.3
15 to 17 years	3.3%	+/-0.9	2.5%	+/-1.1	4.2%	+/-1.5
18 to 24 years	15.7%	+/-2.8	17.2%	+/-4.0	14.0%	+/-4.8
15 to 44 years	47.6%	+/-2.5	49.4%	+/-3.8	45.7%	+/-4.1
16 years and over	83.1%	+/-1.8	84.6%	+/-2.0	81.6%	+/-3.5
18 years and over	80.8%	+/-1.7	82.7%	+/-2.1	78.7%	+/-3.3
60 years and over	18.4%	+/-1.6	16.9%	+/-2.1	20.0%	+/-2.4
62 years and over	16.6%	+/-1.5	15.0%	+/-1.9	18.2%	+/-2.3
65 years and over	14.1%	+/-1.2	13.1%	+/-1.8	15.1%	+/-1.9
75 years and over	6.4%	+/-1.2	6.0%	+/-1.5	6.7%	+/-1.7
SUMMARY INDICATORS						
Median age (years)	35.2	+/-1.6	34.5	+/-3.2	36.2	+/-3.5
Sex ratio (males per 100 females)	106.5	+/-12.0	(X)	(X)	(X)	(X)
Age dependency ratio	50.0	+/-4.7	(X)	(X)	(X)	(X)
Old-age dependency ratio	21.1	+/-2.3	(X)	(X)	(X)	(X)
Child dependency ratio	28.9	+/-3.3	(X)	(X)	(X)	(X)
PERCENT IMPUTED						
Sex	0.3%	(X)	(X)	(X)	(X)	(X)
Age	2.1%	(X)	(X)	(X)	(X)	(X)

From the 2011-2015 American Community Survey 5-Year Estimates

Employment Data

Following is a current map, from the Bureau of Labor Statistics, as of March 2017 related to PA county unemployment. As you can see that Centre County has extremely low unemployment rates. It has been historically accurate that employment in the county has exceeded most of the country unrelated to national economics



Fund Groups Defined

Governments use Fund Accounting, which is different from for-profit accounting in several ways. Most importantly, governments are accountable to the taxpayers and have public service goals rather than the profit motive. With this in mind, governments, including the township, create funds to separate assets for specific purposes. This improves accountability and removes the risk that funds are not comingled with other general funds. To simplify the reporting, funds are classified into Fund Groups, which summarize the individual funds by type. These are described below:

The General Fund is the main operating fund of the township. The majority of revenues are deposited into this fund and the majority of expenditures are made out of this fund. This includes interfund transfers to other funds, making up a large portion of revenue in those particular funds.

The General Obligation Fund is the payer fund of the debt service for the township. This includes any direct bond or loan payments. Indirect payments, such as the COG park and pools debt are not included in the General Obligation Fund. These payments are made out of the General Fund and the Regional Capital Recreation Projects Fund.

The Capital Projects Funds are reserved for projects restricted for specific purposes. Some funds have external restrictions (restrictions by outside parties), such as the Pine Grove Mills Street Light Fund and the Piney Ridge Fund (closed in 2017), while others have Board of Supervisors restrictions, such as the Capital Reserve fund, the Regional Capital Recreation Projects Fund and the Transportation Improvement Fund.

The Special Revenue Funds are those funds that have a special assessment to obtain revenue rather than taxes. The township adds a separate real estate assessment for street lighting and fire hydrants, while the state administers a fuel tax to help local governments maintain their roads. This requires a separate Liquid Fuels Fund.

Fund and Department Relationships

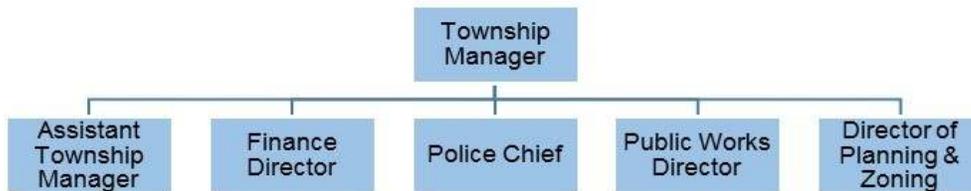
The township follows the PA State Chart of Accounts format. This format is recommended by the state. The state explains the reasoning below:

The account numbers and descriptions of accounts used in the DCED form DCED-CLGS-30, the annual audit and financial report, are based on this chart of accounts. These account numbers and descriptions also are used in the Department of Transportation Form (DOT) MS-903, Treasurer Account Book, Form MS-965, Actual Use Report of State Funds, and Form MS-991, County Liquid Fuels Tax Fund Report. Both DCED and the DOT encourage the use of accounting systems based on the Chart of Accounts presented in this publication

The PA state chart of accounts dictates our fund and department layout. With this in mind, the township assigns specific state funds and departments to specific individuals.

The township manager and department heads are responsible for all the township activities and funds. This section describes the relationships of the departments with the funds.

It is best to organize the departments by the responsible person rather than the reverse. As the organization chart depicts, the senior staff is shown here



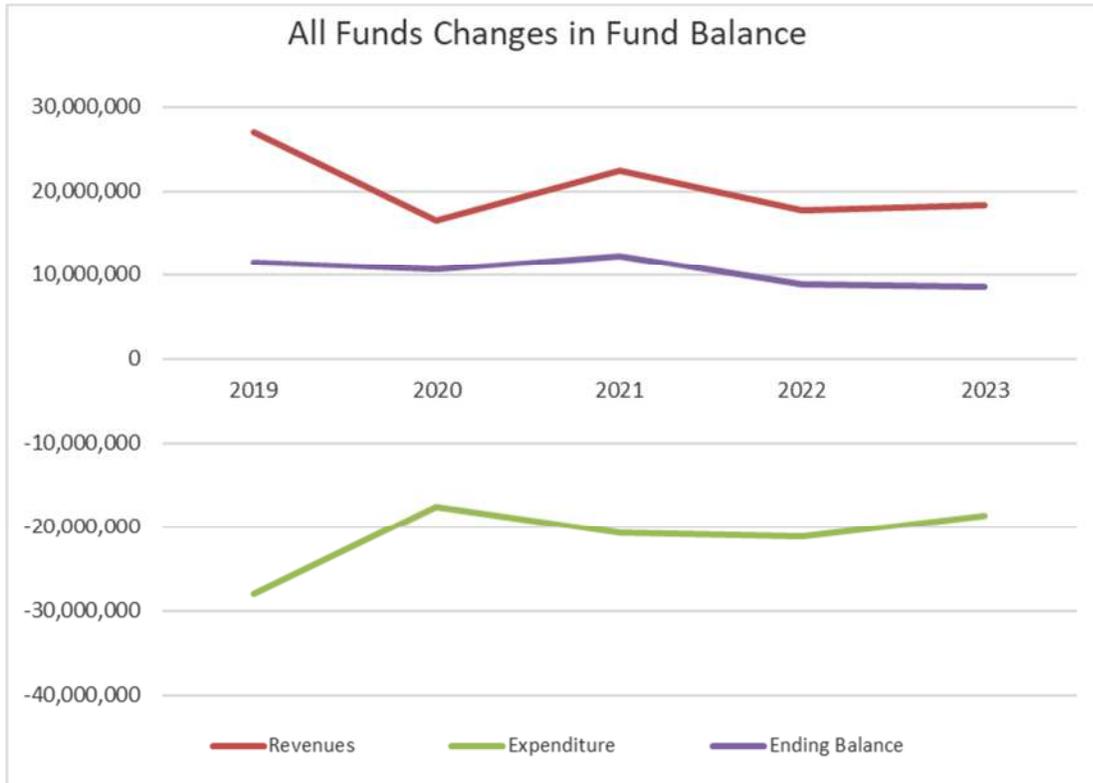
The responsible department heads are Administration, Finance & Tax, Public Works & Engineering, Police, and Planning Zoning. These individuals are responsible for all the accounts within the entire budget and funds.

The following table breaks down the responsibilities by the department heads

Responsible Department	Funds	Responsible Area
Township Manager	All	Responsible for Final Document, Administration, Parks & Rec, Tudek Park
Assistant to the Manager	GF, CR	Assists Manager in reviewing Administration, responsible for Community Engagement
Finance Director	All	Finance, Tax, IT, COG, Salaries & Benefits, Insurance, Pension plans
Police Chief	GF, CR	Police
Public Works Director	GF, CR, TIF, PR,	Engineering, Public Works Road Crew, Arborist, Buildings & Grounds
Planning & Zoning Director	GF, CR	Planning & Zoning

Fund Balances

Over the years, the township has maintained sound fund balances for operations and present and future capital expenditures. Oftentimes the township uses cash reserves to purchase equipment and long-term investments rather than using debt. This conservative style has reduced financial risk considerably and has helped the township through the 2009 economic downturn that has severely hurt other governmental organizations.



Fund	2019	2020	2021	2022	2023	
All Funds	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	12,628,371	11,642,503	10,301,101	11,440,920	8,032,101	12,628,371
Revenues	27,050,999	16,522,641	22,364,604	17,731,268	18,391,874	102,061,386
Expenditure	-28,036,867	-17,864,043	-21,224,785	-21,140,087	-18,640,768	-106,906,550
Ending Balance	11,642,503	10,301,101	11,440,920	8,032,101	7,783,207	7,783,207
Fund Balance % of Expenditures	42%	58%	64%	38%	42%	

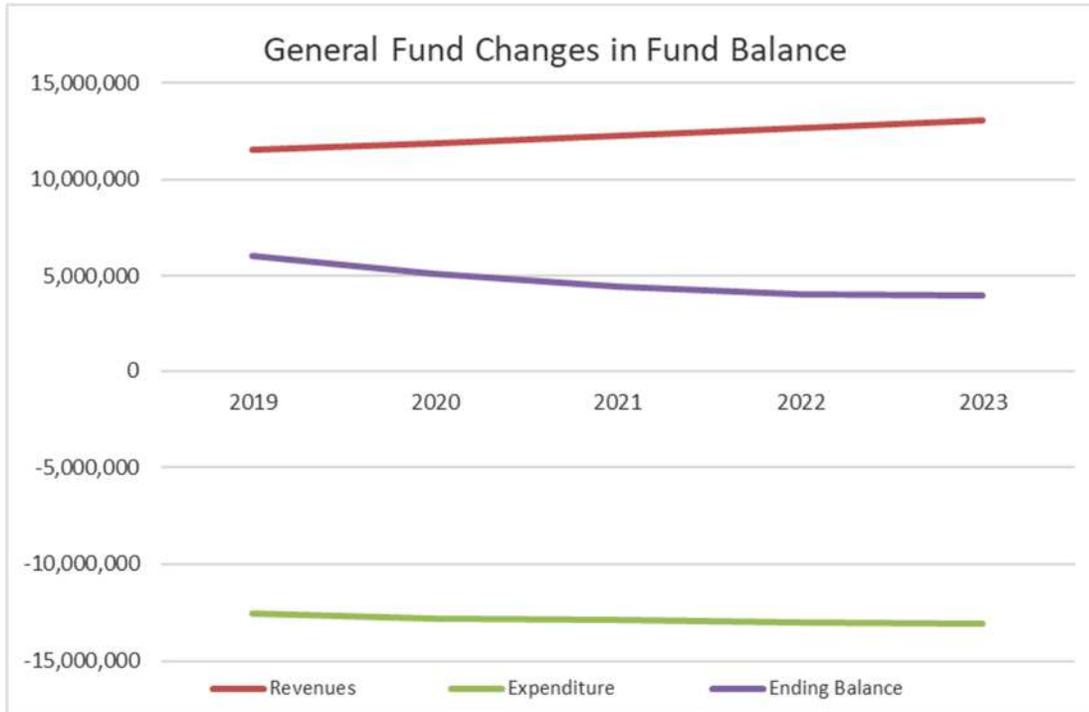
Sinking Funds

The township uses “sinking funds” to accumulate money for various specific needs. These sinking funds are bank accounts with funding, rather than just assignments of funds. As such, the money is segregated from other monies of the township much like having a designated fund. these sinking funds are subsets of the overall fund in which they are located.

According to the Financial Dictionary, a sinking fund is defined as a fund or account into which a person or company deposits money on a regular basis in order to repay some debt or other liability that will come due in the future. For example, if one has a loan with a balloon maturity of seven years, one may put money into a sinking fund for seven years in order to be ready to pay off the principal when it comes due. Some bonds have sinking fund provisions, requiring the issuer to put money aside to repay bondholders at maturity.

Such sinking funds include the Building Equipment Replacement Fund, the Public Works Equipment Replacement Fund, the Police Vehicle Equipment Fund, and the Wellness Fund.

General Fund



General Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	7,086,032	6,029,886	5,091,830	4,452,218	4,070,146	7,086,032
Revenues	11,518,000	11,883,599	12,258,338	12,642,445	13,036,156	61,338,538
Expenditure	-12,574,146	-12,821,655	-12,897,950	-13,024,517	-13,038,518	-64,356,787
Ending Balance	6,029,886	5,091,830	4,452,218	4,070,146	4,067,783	4,067,783
Fund Balance % of Expenditures	48%	40%	35%	32%	31%	

Capital Projects Funds

Ag Preservation Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	88,242	113,242	108,242	133,242	128,242	88,242
Revenues	25,000	25,000	25,000	25,000	25,000	125,000
Expenditure	0	-30,000	0	-30,000	0	-60,000
Ending Balance	113,242	108,242	133,242	128,242	153,242	153,242
Capital Reserve Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	199,073	81,209	-314,354	-476,587	2,275	199,073
Revenues	7,014,457	1,672,600	4,268,600	1,715,600	1,841,600	16,512,857
Expenditure	-7,132,321	-2,068,163	-4,430,833	-1,236,738	-1,171,533	-16,039,588
Ending Balance	81,209	-314,354	-476,587	2,275	672,342	672,342
Reg Cap Rec Projects Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	850,501	742,501	632,501	519,501	403,501	850,501
Revenues	3,000	3,000	3,000	3,000	3,000	15,000
Expenditure	-111,000	-113,000	-116,000	-119,000	-152,000	-611,000
Ending Balance	742,501	632,501	519,501	403,501	254,501	254,501
Transportation Imp Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	3,679,420	3,640,190	3,710,758	3,162,550	2,712,895	3,679,420
Revenues	1,873,670	1,388,569	1,401,791	1,415,346	1,429,241	7,508,616
Expenditure	-1,912,900	-1,318,000	-1,950,000	-1,865,000	-2,532,000	-9,577,900
Ending Balance	3,640,190	3,710,758	3,162,550	2,712,895	1,610,136	1,610,136
PGM Streetlight Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	21,870	22,083	22,297	22,513	22,731	21,870
Revenues	213	214	216	218	219	1,080
Expenditure	0	0	0	0	0	0
Ending Balance	22,083	22,297	22,513	22,731	22,950	22,950
Park Improvement Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	102,052	102,591	103,130	103,669	104,208	102,052
Revenues	539	539	539	539	539	2,695
Expenditure	0	0	0	0	0	0
Ending Balance	102,591	103,130	103,669	104,208	104,747	104,747

Special Revenue Funds

Streetlight Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	-3,292	-2,292	-952	708	2,668	-3,292
Revenues	23,000	24,000	25,000	26,000	27,000	125,000
Expenditure	-22,000	-22,660	-23,340	-24,040	-24,761	-116,801
Ending Balance	-2,292	-952	708	2,668	4,907	4,907
Hydrant Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	-1,202	-702	733	3,071	5,279	-1,202
Revenues	36,000	38,000	40,000	41,000	41,000	196,000
Expenditure	-35,500	-36,565	-37,662	-38,792	-39,956	-188,474
Ending Balance	-702	733	3,071	5,279	6,324	6,324
Liquid Fuels Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	598,232	656,352	689,472	697,592	677,712	598,232
Revenues	664,120	670,120	676,120	682,120	688,120	3,380,600
Expenditure	-606,000	-637,000	-668,000	-702,000	-737,000	-3,350,000
Ending Balance	656,352	689,472	697,592	677,712	628,832	628,832

General Obligation Fund

General Obligation Fund	2019	2020	2021	2022	2023	TOTAL
Beginning Balance	7,443	257,443	257,443	2,822,443	-97,557	7,443
Revenues	5,893,000	817,000	3,666,000	1,180,000	1,300,000	12,856,000
Expenditures	-5,643,000	-817,000	-1,101,000	-4,100,000	-945,000	-12,606,000
Ending Balance	257,443	257,443	2,822,443	-97,557	257,443	257,443

Chapter 3: Revenue Details

Revenue Projections

Township revenues are made up of tax collections, payments-in-lieu of taxes, grant receipts, loan proceeds, permitting and license fees, fines, departmental earnings, interest and other miscellaneous receipts. Overall, the revenue changes are a combination of these items and are represented in the table below

The Liquid Fuels fund includes a 1% annual increase in revenue growth. The Hydrant and Street Light Funds revenues are adjusted in accordance with expenditures to maintain a positive fund balance, taking into consideration the expenditures out of those funds.

Fund Group	2019	2020	2021	2022	2023	TOTAL
General Fund	11,518,000	11,883,599	12,258,338	12,642,445	13,036,156	61,338,538
Capital Projects Funds	8,916,879	3,089,922	5,699,146	3,159,702	3,299,599	24,165,248
Special Revenue Funds	723,120	732,120	741,120	749,120	756,120	3,701,600
General Obligation Fund	5,893,000	817,000	3,666,000	1,180,000	1,300,000	12,856,000
Total	27,050,999	16,522,641	22,364,604	17,731,268	18,391,874	102,061,386
Group change %	60.9%	-38.9%	35.4%	-20.7%	3.7%	
General Fund change %	0.7%	3.2%	3.2%	3.1%	3.1%	
Capital Projects Funds	2019	2020	2021	2022	2023	TOTAL
Ag Preservation	25,000	25,000	25,000	25,000	25,000	125,000
Capital Reserve	7,014,457	1,672,600	4,268,600	1,715,600	1,841,600	16,512,857
Regional Capital Rec Projects	3,000	3,000	3,000	3,000	3,000	15,000
Transportation Improvement	1,873,670	1,388,569	1,401,791	1,415,346	1,429,241	7,508,616
Pine Grove Mills Street Lights	213	214	216	218	219	1,080
Park Improvement	539	539	539	539	539	2,695
Total	8,916,879	3,089,922	5,699,146	3,159,702	3,299,599	24,165,248
Special Revenue Funds	2019	2020	2021	2022	2023	TOTAL
Street Light	23,000	24,000	25,000	26,000	27,000	125,000
Hydrant	36,000	38,000	40,000	41,000	41,000	196,000
Liquid Fuels	664,120	670,120	676,120	682,120	688,120	3,380,600
Total	723,120	732,120	741,120	749,120	756,120	3,701,600
Grant/Loan Summary by Fund	2019	2020	2021	2022	2023	TOTAL
Capital Reserve Fund	494,457	272,600	268,600	280,600	286,600	1,602,857
General Fund	77,649	77,649	77,649	77,649	77,649	388,245
GOA Fund	5,320,000	200,000	2,800,000	235,000	355,000	8,910,000
Liquid Fuels Fund	664,120	670,120	676,120	682,120	688,120	3,380,600
Park Improvement Fund	0	0	0	0	0	0
Regional Capital Rec Projects	0	0	0	0	0	0
Transportation Improvement Fund	498,000	0	0	0	0	498,000
Total	7,054,226	1,220,369	3,822,369	1,275,369	1,407,369	14,779,702

Tax Revenue Projections

The tax revenues make up some 65% of the total township revenue on average, depending if there are any loan proceeds.

The General Fund revenue projections include annual increases based on the type of revenue source. Each source has a different projected increase. Earned income taxes are projected to increase at 3.0%, Real Estate taxes and Local Services taxes at 2.0% and Transfer taxes with 1% projected increases.

Tax Revenue	2019	2020	2021	2022	2023	TOTAL
Real Estate Taxes	1,449,350	1,478,337	1,507,904	1,538,062	1,568,823	7,542,476
Earned Income Taxes	6,800,000	7,004,000	7,214,120	7,430,544	7,653,460	36,102,124
Transfer Taxes	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	7,000,000
Local Services Taxes	320,000	326,400	332,928	339,587	346,378	1,665,293
Total	9,969,350	10,208,737	10,454,952	10,708,192	10,968,661	52,309,892
Average EIT per Resident	358.67	365.76	373.02	380.41	384.11	
Percentage of Total Revenue	36.9%	61.8%	46.7%	60.4%	59.6%	

Interfund Transfers

Funding for many of the capital funds is derived from transfers from the General Fund and debt proceeds from the General Obligation Fund. These transfers, whether mandated or not, have a direct impact on the General Fund balance and the associated capital funds. The following table details the projected transfers during the term of the CIP.

General Fund Transfers Out	2019	2020	2021	2022	2023	TOTAL
TIF	1,375,670	1,388,569	1,401,791	1,415,346	1,429,241	7,010,616
Capital Reserve	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000
Ag Preservation	25,000	25,000	25,000	25,000	25,000	125,000
Liquid Fuels	0	0	0	0	0	0
General Obligation Fund	573,000	617,000	866,000	945,000	945,000	3,946,000
Total	3,173,670	3,230,569	3,492,791	3,585,346	3,599,241	17,081,616
GOA Transfers Out	2019	2020	2021	2022	2023	TOTAL
Capital Reserve	5,070,000	200,000	235,000	3,155,000	0	8,660,000
TIF	0	0	0	0	0	0
Total	5,070,000	200,000	235,000	3,155,000	0	8,660,000

Tax Considerations

The Township maintains a fiscally responsible approach to budgeting. Increases in tax rates have not occurred on any frequent basis. Rather, the township relies on annual revenue increases from a growing tax base. At this time, there is no projected tax increase included in the CIP. The local economic conditions are very positive and have led to increased Earned Income Tax revenues and increased Transfer Tax revenues. In addition, the township has aggressively pursued grant funding. Grant revenue has been very beneficial to the township finances. Combined with fiscal restraint, the township maintains strong financial footing.

Grant Revenue Projections

Grant revenue assists the township in many ways. It is one way to provide additional revenue for projects without raising taxes or cutting expenditures elsewhere. Many federal grants are administered by the state and doled out to local governments in accordance with federal mandates. One such grant is the DUI grant that police receive to offset the costs of checkpoints and DUI enforcement.

The state provides special funding from its tax collections, such as the liquid fuels grants or DCNR recycling grants. Additionally, the state provides funding for parks and open space and to preserve farmland from development.

The township works hard to take advantage of grant money available as a way to provide additional benefits to the residents without raising local taxes to pay for them. However, many of these grants are competitive and cannot be relied upon as guaranteed revenue sources each year.

Other contributions include loan proceeds, developer payments for the Regional Capital Recreation Projects and several Right of Way agreements.

West College Avenue Streetscape Grant Application Initiative

The 2019–2023 Capital Improvement Plan anticipates one grant for Planning & Zoning initiatives. Pennsylvania Act 89 (transportation bill) providing financial support to transportation projects that focused on job creation, multimodal transportation, environmental sustainability, and more established the Penn DOT Multimodal Transportation Fund in 2014. If successful, funding from this program will be used to complete streetscape improvements along the West College Avenue corridor in the Terraced Streetscape District.

Other Grant Funding Efforts

As allowed by the funding agency, either annually, bi-annually, or as announced, staff seeks out and applies for grant funding from various agencies.

County Liquid Fuels Grant: Every year public works staff apply for a County Liquid Fuels Grant, typically around \$30,000 to assist with a capital paving project. The grant is typically awarded every other year. In 2018, the Township received \$30,000 in county liquid fuels funds to assist with the cost of improvements to the Corl Street/ West College Avenue intersection.

Automated Red Light Enforcement Grant: For the current CIP, subject to installation of new hardware and software through an ARLE grant, traffic signal performance will be optimized on a more frequent basis than in the past, annually or more frequently. \$498,900 in grant funding is anticipated in 2019.

Green Light Go Grant: Staff will continue to apply for GLG grant funding as it is available for traffic signal improvements.

Recycling Grant Act 101 Section 902 Recycling Program Grant: This program administered by PADEP provides funding to municipalities for recycling equipment. Staff applied for grant funding in 2018 which may be awarded in 2019 for \$233,132 to assist with the purchase of a brush chipper and a brush grappler.

GRANT/LOAN TABLE								
Grant/Loan/Contributions Detail	Fund	Type	2019	2020	2021	2022	2023	TOTAL
CR Codes Rent of Fire Trailer	CR	C	9,600	9,600	9,600	9,600	9,600	48,000
ARLE Grant (traffic signals)	TIF	G	498,000					498,000
Green Light Go Green grant (signals RADAR)	CR	G	84,000	88,000	84,000	96,000	102,000	454,000
DEP 902 Recycling Grant (Vermeer Brush Chipper 90% grant)	CR	G	65,387					65,387
DEP 902 Recycling Grant (Grappler 80% grant)	CR	G	167,745					167,745
DCNR Cecil Irvin Park	CR	G	100,000					100,000
DCNR Recycling Grants	CR	G	67,725					67,725
Loan Proceeds for new fueling station	GOA	L						0
Loan Proceeds for Admin bldg renovation	GOA	L	500,000					500,000
Loan Proceeds for new PW building	GOA	L	4,500,000					4,500,000
Loan Proceeds for new fire station	GOA	L			2,800,000			2,800,000
Loan Proceeds for Tudek Park	GOA	L					355,000	355,000
Cecil Irvin Park Improvements	GOA	L	320,000					320,000
Suburban Park Improvements	GOA	L		200,000				200,000
Haymarket Park Improvements	GOA	L				235,000		235,000
Northern ITS Cable Right of Way	GF	C	22,144	22,144	22,144	22,144	22,144	110,720
Suneyysis Right of Way	GF	C	4,570	4,570	4,570	4,570	4,570	22,850
Crown Castle Right of Way	GF	C						0
DUI Enforcement	GF	G	43,435	43,435	43,435	43,435	43,435	217,175
Drive Safe Program	GF	G	3,000	3,000	3,000	3,000	3,000	15,000
Buckle Up Program	GF	G	4,500	4,500	4,500	4,500	4,500	22,500
County Liquid Fuels	GF	G						0
Liquid Fuels	LF	G	619,000	625,000	631,000	637,000	643,000	3,155,000
Liquid Fuels Turnback	LF	G	45,120	45,120	45,120	45,120	45,120	225,600
College Court fee in-lieu	PI	C						0
Toll Brothers fee in-lieu	RCRP	C						0
Multimodal Grant (planning)	CR	G		175,000	175,000	175,000	175,000	700,000
Terraced Streetscape Funding	GOA	L						0
Total			7,054,226	1,220,369	3,822,369	1,275,369	1,407,369	14,779,702
Grant/Loan Summary by Fund	Fund		2019	2020	2021	2022	2023	TOTAL
Capital Reserve Fund	CR		494,457	272,600	268,600	280,600	286,600	1,602,857
General Fund	GF		77,649	77,649	77,649	77,649	77,649	388,245
GOA Fund	GOA		5,320,000	200,000	2,800,000	235,000	355,000	8,910,000
Liquid Fuels Fund	LF		664,120	670,120	676,120	682,120	688,120	3,380,600
Park Improvement Fund	PI		0	0	0	0	0	0
Regional Capital Rec Projects	RCRP		0	0	0	0	0	0
Transportation Improvement Fund	TIF		498,000	0	0	0	0	498,000
Total			7,054,226	1,220,369	3,822,369	1,275,369	1,407,369	14,779,702
Grant/Loan Summary by Type	Type		2019	2020	2021	2022	2023	TOTAL
Grants	G		1,697,912	984,055	986,055	1,004,055	1,016,055	5,688,132
Contributions	C		36,314	36,314	36,314	36,314	36,314	181,570
Loans	L		5,320,000	200,000	2,800,000	235,000	355,000	8,910,000
Total			7,054,226	1,220,369	3,822,369	1,275,369	1,407,369	14,779,702

Chapter 4: Expenditure Details

Department Capital Requests

Each department request represents individual department forecasted needs for equipment or projects. The scope or the timing of the requests may change as information that is more current is obtained, the technology changes, or the direction of the plan changes. These requests are best estimates of the future costs given available information at the time of the printing.

Expenditure Projections Summary

Fund Group	2019	2020	2021	2022	2023	TOTAL
General Fund	12,574,146	12,821,655	12,897,950	13,024,517	13,038,518	64,356,787
Capital Projects Funds	9,156,221	3,529,163	6,496,833	3,250,738	3,855,533	26,288,488
Special Revenue Funds	663,500	696,225	729,002	764,832	801,717	3,655,275
Debt Service	5,643,000	817,000	1,101,000	4,100,000	945,000	12,606,000
Total	28,036,867	17,864,043	21,224,785	21,140,087	18,640,768	106,906,550
Capital Projects	2019	2020	2021	2022	2023	TOTAL
Ag Preservation		30,000		30,000		60,000
Capital Reserve	7,132,321	2,068,163	4,430,833	1,236,738	1,171,533	16,039,588
Regional Capital Rec Projects	111,000	113,000	116,000	119,000	152,000	611,000
Transportation Improvement	1,912,900	1,318,000	1,950,000	1,865,000	2,532,000	9,577,900
Pine Grove Mills Street Lights	0	0	0	0	0	0
Park Improvement	0	0	0	0	0	0
Total	9,156,221	3,529,163	6,496,833	3,250,738	3,855,533	26,288,488

General Fund Expenditures

The following table represents the expenditure details for the general fund. This would be the major operating costs in the CIP. The interfund transfers out are also displayed for your reference.

General Fund Detail	2019	2020	2021	2022	2023	TOTAL
Salaries & Benefits	6,137,068	6,321,180	6,510,815	6,510,815	6,706,139	32,186,016
New Staffing & Benefits	17,000	264,509	340,804	467,371	481,372	1,571,056
COG Programs	1,787,078	1,840,690	1,895,911	1,895,911	1,952,788	9,372,378
Vendors	1,459,331	1,164,708	657,629	565,075	298,978	4,145,720
Transfers Out	3,173,670	3,230,569	3,492,791	3,585,346	3,599,241	17,081,616
Total	12,574,146	12,821,655	12,897,950	13,024,517	13,038,518	64,356,787

General Fund Transfers Out	2019	2020	2021	2022	2023	TOTAL
TIF	1,375,670	1,388,569	1,401,791	1,415,346	1,429,241	7,010,616
Capital Reserve	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000
Ag Preservation	25,000	25,000	25,000	25,000	25,000	125,000
Liquid Fuels	0	0	0	0	0	0
General Obligation Fund	573,000	617,000	866,000	945,000	945,000	3,946,000
Total	3,173,670	3,230,569	3,492,791	3,585,346	3,599,241	17,081,616

GOA Transfers Out	2019	2020	2021	2022	2023	TOTAL
Capital Reserve	5,070,000	200,000	235,000	3,155,000	0	8,660,000
TIF	0	0	0	0	0	0
Total	5,070,000	200,000	235,000	3,155,000	0	8,660,000

Staffing

Changes in the number of personnel are included in the budget due to the significance of the cost of additional staffing. Not only does salary have to be considered, but also payroll taxes, health-related costs, other insurances and pensions. Only additional positions are specifically mentioned. Current staffing is included in the operational projections. This includes part-time staffing as well, since such staffing represents labor requirements, to fulfill township service delivery. Overtime is also included in the FTE (full-time equivalent) calculations. It is important to be aware that overtime is an indication of additional staffing needs, usually not sufficient to merit an additional position.

CIP New Personnel Summary						
New Personnel	2019	2020	2021	2022	2023	TOTAL
Administration	0	0	0	0	0	0
Finance	0	0	0	0	0	0
Engineering	0	0	0	0	0	0
Police	17,000	117,469	187,581	199,321	211,877	733,248
Planning	0	0	0	114,827	116,272	231,099
Public Works	0	147,040	153,223	153,223	153,223	606,709
Total	17,000	264,509	340,804	467,371	481,372	1,571,056
		1 dendrition, 1 officer, 1 road worker	pt oeo to ft	1 economic development coordinator		

Fulltime Equivalents

The number of township “Full-time Equivalents”, a measure of employment based on the number of hours paid for all staff helps determine the rate of change in the staffing levels of the township. One FTE is equivalent to 2080 hours worked. The proposed table is included for your reference. The resident per FTE provides information as to the relative size of the township staff for the number of residents served. It can be used as a benchmark against other municipalities to compare staffing levels and related costs.

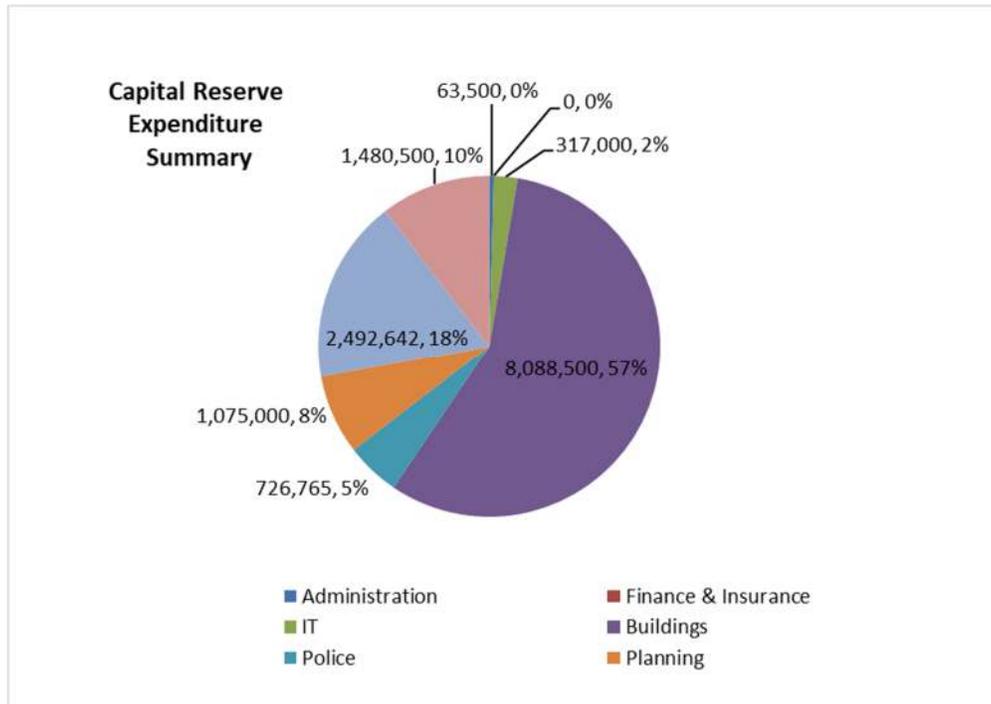
FERGUSON TOWNSHIP FULL TIME EQUIVALENTS					
Residents/FTE	2019	2020	2021	2022	2023
Population	18,771	18,959	19,149	19,533	19,925
FTEs					
Elected Officials	2.5	2.5	2.5	2.5	2.5
Administration	4.5	4.5	4.5	4.5	4.5
Finance	3.5	3.5	3.5	3.5	3.5
Buildings & Grounds	1.5	1.5	1.5	1.5	1.5
Engineering	5.5	5.5	5.5	5.5	5.5
Police	24.0	25.0	25.0	25.0	25.0
Police OT (from YE)	1.2	1.2	1.2	1.2	1.2
Planning & Zoning	5.5	5.5	5.5	6.5	6.5
Public Works	22.0	23.0	23.0	23.0	23.0
Public Works OT (from YE)	0.5	0.5	0.5	0.5	0.5
Total	70.7	72.7	72.7	73.7	73.7
NEW STAFF					
Police		1.0	1.0	1.0	1.0
Planning			0.5	1.5	1.5
Public Works		2.0	2.0	2.0	2.0
Arborist					
Total	0.0	3.0	3.5	4.5	4.5

As mentioned previously, **the Capital Projects Funds** are reserved for projects restricted for specific purposes. Some funds have external restrictions, such as the Pine Grove Mills Street Light Fund and the Piney Ridge Fund, while others have Board of Supervisors restrictions, such as the Capital Reserve fund, the Regional Capital Recreation Projects Fund and the Transportation Improvement Fund

Capital Reserve Fund	2019	2020	2021	2022	2023	TOTAL
Administration	20,000	15,000	0	28,500	0	63,500
Finance & Insurance	0	0	0	0	0	0
IT	92,850	81,800	30,300	73,500	38,550	317,000
Buildings	5,122,600	4,300	2,830,950	126,250	4,400	8,088,500
Police	193,133	160,133	136,533	141,733	95,233	726,765
Planning	25,000	300,000	250,000	250,000	250,000	1,075,000
Public Works Equipment	826,238	635,930	490,050	459,755	290,350	2,702,323
Parks	397,500	338,000	345,000	35,000	365,000	1,480,500
Total	6,677,321	1,535,163	4,082,833	1,114,738	1,043,533	14,453,588

Roads & Other	2019	2020	2021	2022	2023	TOTAL
Liquid Fuels	606,000	637,000	668,000	702,000	737,000	3,350,000
Capital Reserve	455,000	533,000	348,000	122,000	128,000	1,586,000
Transportation Improvement	1,912,900	1,318,000	1,950,000	1,865,000	2,532,000	9,577,900
Total	2,973,900	2,488,000	2,966,000	2,689,000	3,397,000	14,513,900

The Capital Reserve Fund comprises the equipment capital requests along with occasional projects. This is one of the Capital Projects Funds. Each department puts in requests for equipment in this fund.



The Special Revenue Funds are those funds that have a special assessment to obtain revenue rather than taxes. The township adds a separate assessment for street lighting and fire hydrants, while the state administers a fuel tax to help local governments maintain their roads.

Special Revenue	2019	2020	2021	2022	2023	TOTAL
Street Light	22,000	22,660	23,340	24,040	24,761	116,801
Hydrant	35,500	36,565	37,662	38,792	39,956	188,474
Liquid Fuels	606,000	637,000	668,000	702,000	737,000	3,350,000
Total	663,500	696,225	729,002	764,832	801,717	3,655,275

Departmental Expenditures

ADMINISTRATION DEPARTMENT

The Administration Department proposes to spend **\$63.5 Thousand or .4%** of the **Capital Reserve Fund Requests** during the term of this capital plan.

Organizational Chart



Department Activities

The Administration Department provides overall support, guidance and direction for the township governmental and operational responsibilities. Coordinating the various long-range plans with the Capital Improvement Program Budget is a critical function of the Department.

The Mission of the Administration Department is to strive to advance professional management through open and accountable government leadership dedicated to providing sound financial management, public safety, responsible planning, recreational opportunities and quality community infrastructure. Our goal is to continue as a progressive, healthy and livable community for future generations.

Managing the Township organization and related services requires foresight to anticipate trends and new technology while meeting the basic service needs of the residents and businesses. Federal and state mandates many times affect the Township, requiring the township absorb additional costs while maintaining current staffing levels. At the end of the day, the delivery of services that many residents, businesses and visitors have come to expect must be performed.

2018 Accomplishments

2018 has been an exciting year for the Township. The Administration department has led initiatives advancing environmental sustainability goals, the provision of cost-effective public services, and efficient government practices that streamline business processes and save taxpayers money. The design for the construction of a new Public Works Maintenance Facility and interior renovations to the Municipal Building has been underway. These construction projects will accommodate new and future staffing needs as well as needs for equipment storage and maintenance. Other accomplishments include implementation of a document

management solution that reduces paper consumption and digitizes requisitions and purchase orders to reduce staff time spent on administrative functions and streamline review processes.

An expanded fire station feasibility study for the western end of Ferguson Township has commenced. The goal of the study is to identify the merits of a satellite Alpha Fire Company station that can improve service delivery to Pine Grove Mills, Pennsylvania Furnace, Rock Spring, Port Matilda, and Warrior's Mark. In addition to evaluating community support of the fire station, the study hopes to identify an optimal location as well as potential building footprint that if warranted, can help guide the Township in land acquisition for the future satellite station.

Sustainability continues to be an operating theme as the Township moves forward in this Capital Improvement Plan. In 2017, the Board of Supervisors adopted a resolution to immediately begin to develop a strategy to become a net-zero greenhouse gas emitter no later than 2050. Work on the climate action strategy has commenced, and a committee of qualified community members has begun to work diligently on a greenhouse gas emissions inventory for the Township. The inventory will then become the foundation from which the climate action strategy will be developed. It is the goal of Board to develop a strategy that is economically feasible and builds partners in reducing greenhouse gas emissions that will benefit socially and economically from environmentally efficient and sustainable business practices.

While environmental sustainability continues to be a focus of the Board of Supervisors, community and economic sustainability also are driving forces behind policy decisions and investment of tax dollars. Efforts have begun with the Centre Region Planning Agency to draft a Small Area Plan for Pine Grove Mills. The plan aims to create a community vision for the revitalization of the Village as a focal point and "town center" of Ferguson Township.

Strategic Plan Alignment

The Capital Improvement Plan seeks to advance the goals, objectives, and action steps as outlined in the Ferguson Township Strategic Plan. Over the next five years, several of the Strategic Plan items will be accomplished through the proposed expenditures in the Capital Improvement Plan.

Goal 1 – Financial Stability

b. Regularly compare the cost of providing services in-house with costs from private contractors, other municipalities, other government agencies and regional services.

Goal 5 – Best Management Practices for Operations

a. Ensure adequate staffing and resources necessary to carry out Township services and programs.

c. Ensure that operational practices are fiscally responsible.

FERGUSON TOWNSHIP
2019 – 2023 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS
ADMINISTRATION

30.400.401.750		
Description	Year	Amount
Administration Office renovation	2019	see buildings
Community Survey Update	2019	20,000
New Fire Station Land Acquisition	2019	see buildings
Website redesign	2019	see IT
Strategic plan update	2020	5,000
Disaster Recovery Test	2020	10,000
New Fire Station	2021	see buildings
Replace Administration Vehicle	2022	28,500
Total		63,500

Subtotals by Year	EXPENDITURES	
	2019	20,000
	2020	15,000
	2021	0
	2022	28,500
	2023	0
	Total	63,500

2019

Administration Office Renovation	\$500,000
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Please note: The cost of the renovation is included in the Buildings Department. The narrative is provided for your information as an Administration project.

Staff completed the design of interior renovations for the Administration Building and Police Department in 2018. The design followed a master plan that was approved by the Board in 2017. The goal of the renovation is to accommodate current and future staffing needs, as well as needs for storage and meeting spaces.

Community Survey Update	\$20,000
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A Township-wide community survey was completed in 2011 by the Penn State Extension. Since that time, the community has grown, and the needs of the Township have changed. The Township should consider updating the community survey in order to evaluate how policies and programs implemented since 2011 have improved or worsened resident satisfaction across a number of service areas. Additionally, the Board should consider using the National Citizen’s Survey or a similar measure that can benchmark the Township against other similarly situated communities. This appropriation will provide for mailed and electronic survey submissions, and custom questions relative to local initiatives that the Board and staff may wish to assess.

New Fire Station - Land Acquisition	\$80,000
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Please note: The cost of the Fire Station is included in the Buildings Department. The narrative is provided for your information as an Administration project.

In 2018, the Township began an extended fire station feasibility study to supplement the analysis completed by the Alpha Fire Company in 2017. The study evaluated support for a fire station to improve service to the western end of Ferguson Township. The satellite fire station would also improve response to the Warrior's Mark and Port Matilda service areas when needed. Should the Board determine that a satellite fire station is warranted, and an optimal location is identified by the analysis, land suitable for the station will need to be acquired in 2019.

Website Redesign	\$15,000
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Please note: The cost of the website redesign is included in the IT department. The narrative is provided for your information as an Administration project

The Township completely redesigned its website in 2013; however, problems with the selected vendor have made accessing support difficult. Features and enhancements that were promised as part of the redesign had not been delivered, and the overall experience has been poor. Staff is recommending a redesign in this budget year to transition to a hosting platform that can better accommodate our needs and provide adequate support. Annual hosting fees are \$2,500 and included in the operating budget.

2020

Strategic Plan Update	\$5,000
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The Board of Supervisors last adopted its Strategic Plan in 2017. In 2021, this iteration of the plan will be five years old and it may be prudent to plan for an update. This item is to cover the cost of consulting services and other ancillary expenses associated with the drafting and development of the plan. The plan would be drafted in 2020 and adopted in 2021.

Disaster Recovery Test	\$10,000
-------------------------------	-----------------

The Township maintains a Continuity of Operations Plan to be better able to respond to unforeseen emergencies ranging from simple power outages to the total loss of the municipal building. Over the years, the staff has conducted a series of tabletop exercises and training simulations to test the implementation of the plan and train on its use; however, these exercises have taken place entirely in-house with the resources available to the Township. This project will conduct a more comprehensive test in conjunction with the Centre Region Emergency Management Coordinator. A cyber-security test is also recommended to evaluate the effectiveness of the Township's data backup and recovery.

2021

New Fire Station	\$2,800,000
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Please note: The cost of the Fire Station is included in the Buildings Department. The narrative is provided for your information as an Administration project.

In the early years of this Capital Improvement Program budget, the Centre Region COG Public Safety Committee will likely endorse a study to determine the need for a new fire station in Ferguson Township. The study will determine the ideal site, size and configuration of the

station. Based on a two-bay station with kitchen, social area, and sleeping quarters it is estimated this facility with cost approximately \$2.8 million.

2022

Administration Vehicle

\$28,500

Historically, the Administration vehicle had been on a three-year replacement schedule and the outgoing vehicle had been transferred to the fleet. Given the relatively good condition and low mileage of the current fleet vehicles, it is recommended that this replacement is based on a five-year cycle.

2023

No items have been requested for this year.

FINANCE DEPARTMENT

The Finance Department includes the township and school real estate tax collection. The Finance Department requests total **\$0 or 0.0%** of the total **Capital Reserve Fund Requests** for this capital plan.

The finance department provides billing and cash receipts for both the township and school, payment of vendors and employee payroll, cash management and investments as part of the daily activities. In addition, the finance department works with staff to prepare the five-year capital improvement plan and the annual budget.

The goals of the Finance Department include on-going reviews of the township operations with staff to promote waste reduction, efficiency and cost-effective operations. This comprises using technology, staff training, trend analysis, cost management techniques, vendor relations, best practices techniques, performance benchmarking and peer group discussions.

Given that the township operations are heavily dependent on personnel and related costs, it is important to give consideration to the cost of turnover. Some estimates put the cost of hiring and training new employees, depending on the skill level, of anywhere from 20% to 100% of the cost of the employee's annual salary.

Strategic Plan Alignment

The Finance Department objectives relate directly to the following strategic plan goals:

Goal 1.0 Financial Stability

Ferguson Township strives to be financially stable and capable of funding the Township's resource demands for immediate and long-term sustainability.

Goal 2.0 Adequate Staffing

Ferguson Township will maintain adequate staffing and expertise to meet the needs of a growing population.

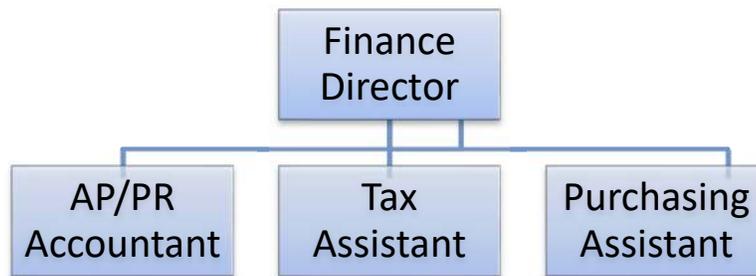
Goal 4.0 Service Delivery

Ensure service delivery in Ferguson Township is sufficient to accommodate growth, addresses new concerns of the community, and is provided at the lowest responsible cost to residents.

Goal 8.0 Regional Programs

Ferguson Township will continue to actively participate in regional programs that have a demonstrable positive impact on cost and quality of service delivery.

Organizational Chart



The Finance Department includes the tax collection, finance, and debt components of the Township. Finance also assists with computer services as needed. Finance activities consist of treasury management, billing & collection of revenues, payroll, accounts payable, debt management, risk management, grant management, fixed assets and inventories.

The tax office collects the real estate taxes for the township and the school district for Ferguson residents. The township tax office collects over \$25 million in real estate taxes annually.

Related to the township finances, since changes in township revenues and expenditures have been gradually increasing, it is important to measure trends in order to adjust for such changes. The Finance Department works with the township staff and other related agencies, the GFOA (Government Finance Officers Association), GASB (Governmental Accounting Standards Board), the Commonwealth of PA, the Centre Region COG and regional municipalities to obtain valuable information on the financial health of the township at large. This way, the township can proactively manage the township operations to adjust to these changes in a timely manner.

Since revenues generally grow at a slower rate than expenditures, there are a few options available to the township. One is to reduce spending. While this may appear to make sense on the surface, cutting spending is most likely detrimental to the township. Since the population is growing, additional services are needed to accommodate the population increase. This requires an increase in spending rather than a decrease. In addition, cutting spending would have a direct effect on the quality of the township services. This would be detrimental to the quality of life for the residents. Given that the township is in a way competing with other places to live, the quality of life is a significant factor for citizens looking to relocate.

Another more thoughtful option is to pursue additional revenues. Thankfully, the township tax mix provides for increasing revenues as a result of income taxes. This has allowed the township to grow without the need to raise taxes for more than 10 years. Occasionally, it is necessary to raise property taxes to make up the difference between the revenue growth and the cost of providing services.

One of the best ways to improve revenues is to obtain grant funding. The administration works closely with local agencies, developers and PA state agencies to locate and secure grant funding where possible. This supplements the tax revenues and reduces the burden on the township taxpayers.

TAX COLLECTION

The township uses the RBA cloud-based system for real estate tax collection for the township and school. This system is economical and effective. By using a bar-code reader for data input, the tax bills can be processed more quickly and accurately than in the past. Tax payments (other than cash) are uploaded into the bank using a remote deposit scanner. This

saves significant time by nearly eliminating the need to drive to the bank to make deposits. The bank provides a courier weekly at no cost to the township for cash deposits and miscellaneous items.

FINANCE ITEMS

The township uses the Springbrook accounting system. Springbrook is a modular ERP (Enterprise Resource Planning) system. This allows the township to select those modules that best fit the township needs and avoid the cost of unused modules. This also allows the system to grow along with our needs. In addition, the system allows for document imaging of invoices, vendor and customer information. By visually comparing the invoices to the data entry, finance has identified situations that have saved the township money due to occasional invoicing issues. Also, by uploading invoices into the system, it has much improved our responses to auditors requests for documentation.

As the township grows and obtains additional resources, other options become available for consideration. One such item is inventory control. Eventually, inventory costs will become so large that it will be material to the township finances. Currently, there is no tracking of inventory items. One example that could have a material effect on the township reporting is the salt inventory. The salt shed holds around 1,000 tons of salt. At \$75 per ton, it is possible to have \$75,000 worth of assets in the salt shed at any one time. An inventory system would be able to account for this.

Another sizable component of the township finances is the cost of public works and police vehicles. Together, the township has invested millions of dollars in such equipment. Maintaining this equipment saves the township significant money over the life of the equipment. A fleet management system would help with planning routine maintenance and track costs by vehicle more effectively than the paper system currently in use. Accela, the makers of Springbrook, offers an asset/inventory management system that could be an option when the time comes.

Other items include small items that do not meet the fixed assets threshold in cost. Small tools, automotive parts and supplies, chemicals etc. Finance would work with the public works department to implement such a system.

FERGUSON TOWNSHIP
2019 – 2023 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS
FINANCE

30,400,402.750		
Description	Year	Amount
Inventory Module Springbrook	2021	included in IT
Fleet management system	2022	included in IT
Total		0

Subtotals by Year	EXPENDITURES	
	2019	0
	2020	0
	2021	0
	2022	0
	2023	0
	Total	0

INFORMATION TECHNOLOGY DEPARTMENT

The Information Technology department requests **\$317 Thousand or 2.2%** of the **Capital Reserve Fund Requests** for this capital plan.

Currently, a third party, Hinton & Associates, manages the information technology department. The Manager and the Finance Director work closely with township staff and Hinton to manage the computer systems and software, perform updates, plan future needs of the township and assist with helpdesk tickets.

Desktop computers, laptops and software maintenance fall under the operating budget based on not meeting the \$2,500 threshold for capital expenditures.

OUTLOOK AND STRATEGIC PLANNING

It seems like technology is in a constant state of flux. Five years is like an eternity in the technology field. What was common 5 years ago may be completely different today. Mobile apps and cloud versions of software are commonplace.



What will the next 5 years bring to the industry and how will the township adapt or deal with the changes? Internet security is a hot topic now and the future. How do we protect our data, finances, and computer systems from intrusion?

With new generations of firewalls and antivirus, anti-intrusion capabilities, it will be important to not only protect the network and computers, also mobile devices, (including phones, laptops and tablets). The system is only as safe as the weakest link.

As the computer systems and software the township uses increases in complexity, the cost also increases. This complexity has caused software companies to merge, acquire others or leave the marketplace. The lack of company and software platform stability adds another level of insecurity when making large investments in software. To deal with this, providers are moving to cloud versions and offering Software as a Service (SAS) rather than the software itself.

THE TOWNSHIP IS GROWING

The township has sufficient resources and needs now to handle most IT activities independently rather than requiring a group endeavor. There are some real benefits to this. Decisions can be made that are tailored to the township needs and implementation can be performed faster. It is important to be aware that this also increases risk. It will require diligence on the township to plan for the technology needs using experts and relying on the IT contractor in assisting with choices. The IT strategic plan and the CIP fills this need.

SECURITY

One of the current issues facing business, government, residents and anyone using the internet is security. The most common means of accessing one's system is through email phishing. This scheme uses a link via an email message that may appear extremely authentic, yet has an attachment that downloads into the user's system and allows remote capture of the user's information or control of the system. User training is an important component of prevention.

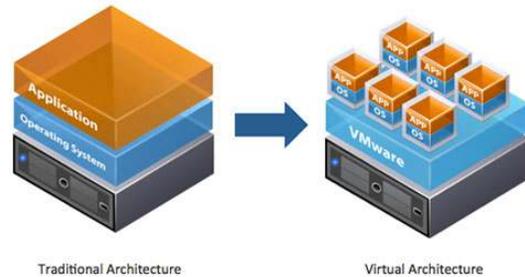
One of these threats recently is ransomware, or malicious software that is designed to block access to a computer system, until a sum of money is paid. These types of threats are constantly changing and require the township to adapt to them. The township protects itself using several methods, enhanced firewalls, limiting access points, antivirus/anti-malware protection, proactive scanning of the network, and intrusion detection. Data backup, both onsite and offsite, protects the server data in case of fire or another disaster.

ARCHITECTURE

The township uses virtual servers (sharing hardware to operate multiple operating systems on one piece of hardware). This requires redundancy since if a server fails, it will affect several systems. The total cost of hardware is significantly less than the traditional architecture. The township is using server virtualization where cost-effective and beneficial.

Virtualization Defined

For those more visually inclined...



INTERNET ACCESS

The township contracted with Comcast in 2017 for high-speed internet. This is a 3-year agreement ending in 2020. This required the township to invest in a firewall and related software to protect the system. The benefits of this system is a fourfold increase in speed at the same operating costs. In addition, there is another potential solution, KINBER.

The Keystone Initiative for Network Based Education and Research (KINBER) network is a non-profit internet company providing services to the educational and government markets using fiber optic cable. The initial estimate for installation is steep (approximately \$50K).



TRAINING

One component of the changing technology is the constant need for training. Users cannot inherently understand how each software package works and how best to use it given the variety of applications along with the complexity of such software. It is essential to continually train staff to be proficient using the tools at hand. Microsoft Office, Laserfiche, Springbrook, Nitropro PDF, ESRI, Tyler all require specialized training to be used effectively.

CLOUD SOFTWARE

Technology is changing and cloud software has found a footing in industry. Microsoft Office is promoting the cloud version with the Office365 platform. The Centre Region COG Codes software, payroll and human resources, and the Centre Region COG Finance accounting software are all “on the cloud”. Software vendors are finding savings in cloud software and some are requiring customers to convert to the cloud product. Advantages of cloud software include access to the most current software, ability to access the system remotely from almost any location with internet access, and it updates automatically behind the scene.

Some software is not a good fit for the cloud at this time. Geographic Information Systems (GIS) software is a good example. Due to the amount of data involved, communicating with the cloud becomes bottlenecked. It is likely that at some point in the future, this issue will be resolved. Online backup and restoration is another example of difficulty with the cloud. The volume of data during a full backup or restore could potentially require days to transfer. Given the time frame to restore a full loss, an intermediate method is used. An on-site backup is maintained for general data loss needs, such as accidental file deletion, hard drive failures, etc.



DOCUMENT MANAGEMENT

The township installed the Laserfiche document management solution in 2017. Two benefits of this system are space saving and universal access. Computers can hold tens of thousands of documents in the space of a server. Staff no

longer needs to find and search paper files for the data. Electronic documents can be searched in seconds and electronic documents are not lost in transit.

Saving time on such activities provides overall cost savings for the township. There is practically no limit on storage space for documents given the current storage capacities of hard drives.

Laserfiche also provides for electronic workflow, a systematic procedure for processing documents. Given the practical time limits on processing certain documents, electronic transmission makes sense due to time saved over paper document processing. Signatures and authorizations are performed via email and can be customized to fit the best practices.

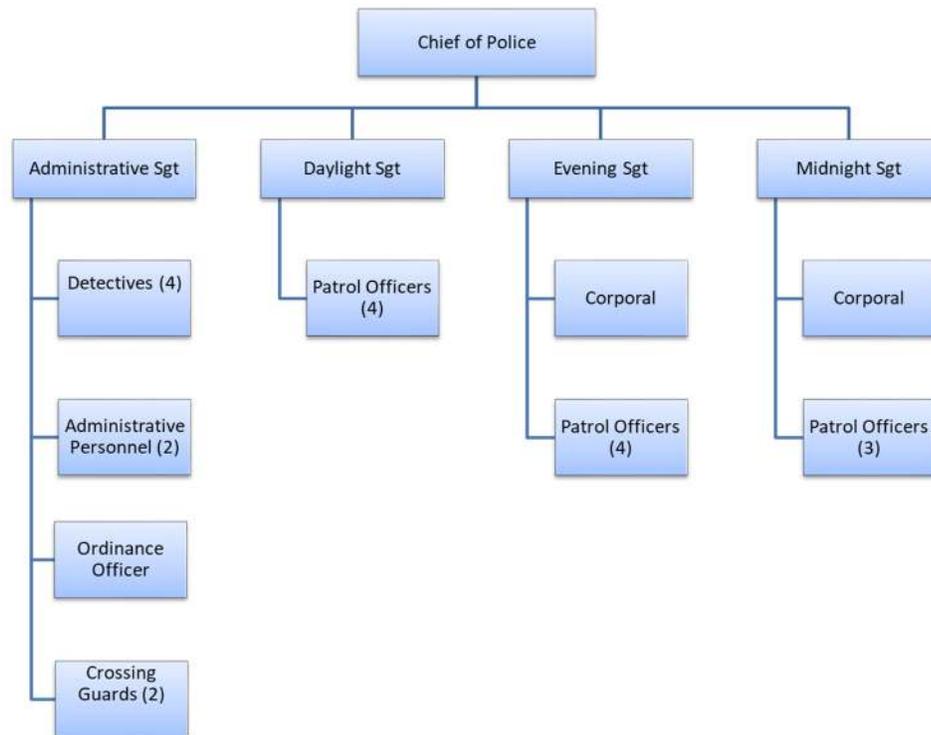
FERGUSON TOWNSHIP		
2019 – 2023 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS		
INFORMATION TECHNOLOGY		
30.400.407.750		
Description	Year	Amount
Network GB switch for new PW building	2019	5,000
Replacement server including database software and virtualization	2019	15,000
Annual Records Management Fee	2019	16,000
Annual Records Management Fee	2020	16,800
Annual Records Management Fee	2021	17,800
Annual Records Management Fee	2022	18,500
Annual Records Management Fee	2023	19,400
Forms module for Laserfiche (5 year total cost)	2019	16,850
website redesign	2019	15,000
Permitting Software Replacement	2019	25,000
Offsite backup server	2020	15,000
KINBER connection	2020	50,000
Inventory Module Springbrook	2021	12,500
Phone system upgrade/replacement	2022	30,000
Fleet management system	2022	25,000
Replace Building Door Security System	2023	19,150
Total		317,000
EXPENDITURES		
Subtotals by Year	2019	92,850
	2020	81,800
	2021	30,300
	2022	73,500
	2023	38,550
Total		317,000

POLICE DEPARTMENT

The Police Department is proposing to spend **\$727 Thousand or 5.1%** of the **Capital Reserve Fund Requests** during the term of this capital plan

Organizational Chart

The proposed organizational chart for the department is displayed below. The department employs 21 officers as well as the Chief, and two records assistants, a part-time ordinance enforcement officer and two part-time crossing guards.



Police Staffing

FERGUSON TOWNSHIP						
2019 – 2023 CIP STAFFING						
POLICE STAFFING						
Direct Costs Estimate	2019	2020	2021	2022	2023	Total
Salary		59,831	105,732	113,136	120,883	399,581
Health/Eye/Dental		26,208	56,318	59,134	62,091	203,752
Life/Disability Insurance		included	included	included	included	0
Pension		5,983	10,573	11,314	12,088	39,958
Employer Taxes		4,702	8,338	8,655	9,248	30,943
Workers Comp		3,745	6,619	7,082	7,567	25,014
Academy Training	17,000	17,000	0	0	0	34,000
Total	17,000	117,469	187,581	199,321	211,877	733,248
		1 officer	PT to FT Ordinance Officer			

The department currently has 22 sworn officers. With the anticipated buildout of the several proposed developments, The Cottages of State College, Turnberry and Harner Farms, the department is seeking an additional police officer. The developments are substantial and may necessitate the need for additional police personnel. It takes nearly one year for a new officer to be ready for solo patrol.

2019

An officer is eligible for retirement in 2018. It is unknown if the officer is going to stay or retire. In anticipation of his departure, we are taking steps to create a hiring list. In the event the top candidate does not have police certification, I am seeking funding to send the candidate to the police academy. The funding includes tuition, rooming, clothing and equipment. Typically, the Municipal Police Officers Education and Training Commission provides partial reimbursement to departments for costs associated with sending a candidate to the academy.	\$17,000
Total	\$17,000

2020

The department currently has 22 sworn officers. With the anticipated buildout of the anticipated developments of The Cottages at State College, Pine Hall Traditional Town Development and Harner Farms, the department is seeking the addition of an additional officer. The developments are substantial and may necessitate the need for additional police personnel. It takes nearly one year for a new officer to be ready for solo patrol.	\$100,469
Academy (If necessary) / Equipment	\$17,000
Total	\$117,469

2021

The Ordinance Enforcement Officer position is currently part-time, working 25 hours per week. The OEO handles animal calls, parking enforcement and ordinance violations. The activity level for the OEO is increasing. With the anticipated growth of the township, we are seeking to make the OEO a fulltime position.	\$40,000
Total	\$40,000

Police Vehicle Fleet Map

The current police vehicle fleet map is included for your reference. It includes ten Patrol vehicles, some powered by Compressed Natural Gas, as well as administrative, detective and training vehicles. The Mobile Command Vehicle, which is jointly owned but maintained by FT, is listed on the map. The replacement dates are included in the chart.

Vehicle #	FT-1	FT-2	FT-3	FT-4	FT-5	FT-6	FT-7	FT-8	FT-9	FT-10	FT-11	FT-12	FT-13	FT-14	FT-17	FT-20	FT-21	FT-5EVOC	
Year / Make	2013 Chev Tahoe	2014 Chev Tahoe	2013 Chev Tahoe	2012 Chev Caprice	2016 Chev Tahoe	2012 Chev Caprice	2009 Ford Crown Victoria	2015 Chev Tahoe	2018 Ford Fusion	2016 Chev Equinox	2013 Chev Tahoe	2014 Chev Caprice	2014 Chev Impala	2017 Ford Interceptor	2008 Chev Impala	2000 MCV Ford	1995 Ford Caprice	2011 Chev Caprice	
Typ ID	100046	100259	100045	100043	101004	100048	100195	100262	101005	101001	100044	100261	100260	100254	100123		100252	100255	
	IGNLCE200DR	IGNSRK2E0	IGNLCE2E06	6G1MKSU2	IGNLCD	6G1MKSU2	FAHP71	IGN5K2E	3FAGP0U	2GNFLE	IGNLCE	6G3N55	1G11X3S	1FM5K8A	2G1WSS	5134LP37J	1FDDE30		
VIN	283016	2E4172886	DR384297	3CL646331	90916	32	033	450	16	99997	50	9725	604	32	8892	6	651	661MK5T20	BL544811
In Service	May-13	May-14	May-13	Oct-12	Nov-16	Oct-12	Jun-09	Jul-15	May-18	May-16	May-13	Apr-15	Mar-14	Aug-17	Mar-10	Jul-05	Jun-08	11/16	
Assignment	Patrol	Patrol	Patrol	Patrol	Patrol	Patrol	Detective	Patrol	Chief	Detective	Patrol	All	Detective	Patrol	All	Spec	Spec	Patrol	
CNG			Y (Jan 2014) Grant		Y			N	N	N	N	N		N					
Radio	XTL2500	XTL2500	XTL2500	XTL2500	XTL2500	XTL2500	XTL5000	APX5500		XTL2500	XTL5000	APX4500	XTL2500	XTL2500	XTL2500	Multiple	XTL2500	XTL2500	
In Service	2013	2013	2013	2013	2013	2013	2009	2015	2018	2013	2009	2015	2015	2013	2013		2013		
MCT Model / In service	GETAC Tablet (2017)	GETAC Tablet (2017)	GETAC Tablet (2017)	GETAC Tablet (2017)	GETAC Tablet (2016)	GETAC Tablet (2017)	No	GETAC Tablet (2015)	No	None	GETAC Tablet (2017)	GETAC Tablet (2015)	GETAC Tablet (2015)	GETAC Tablet (2017)	None	None	None	None	
VASCAR/VSPEC	VASCAR Plus IHC (2015)	VSPEC-09	VASCAR Plus IHC (2015)	No	N/A	VASCAR Plus IHC (2015)	VASCAR Plus IHC (2015)	VASCAR Plus IHC (2015)	N/A	N/A	N/A	N/A							
Cal Number	C100434	C100423	C100428	C100426	C100157	C100432		C100429			C100431	C100433							
Replacement Date	2019	2020	2018	2019	2022	2019	2020	2021	2023	2022	2020	2022	2021	2023	2018	N/A	N/A	N/A	
Mileage 5/15/18	105,030	87,302	123,745	98,811	23,567	106,973	80,817	48,629	286	15,206	86,612	24,419	27,141	11,053	59,206	6,143	188,043	130,810	

Police Department Capital Requests

The total proposed police department capital items for the 2019 to 2023 Capital Improvement Plan is described in the following requests. The proposed five-year CIP expenditures are based on currently known information and are coordinated with the Township's strategic plan. It includes fleet rotation based on a five year or more cycle of one to three vehicles per year, depending on the condition of the vehicle. Most new patrol vehicles have been specified as Ford Interceptor SUVs.

The department intends to replace administrative and detective vehicles with fuel-efficient Hybrid vehicles. Ford is developing a Hybrid car that may be utilized as a patrol vehicle however little is known about the price, performance, dependability and maintenance costs.

Our current patrol fleet is a blend of cars and four-wheel drive SUVs. The department intends to maintain a similar fleet composition. The cars have better fuel economy but equipment storage is limited and officer comfort is sometimes an issue. Four-wheel drive SUVs offer more equipment storage, operator comfort and operability in inclement conditions. The smaller Ford SUVs offer better fuel economy than our current fleet of Tahoes.

FERGUSON TOWNSHIP								
2019 – 2023 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS								
POLICE VEHICLES								
30,400,410,750								
Description	Current Mileage	Age @ Replacement	2019	2020	2021	2022	2023	Total
Replace 2013 Tahoe (FT1) (including equipment)	105,030	6	48,700					48,700
Replace 2012 Caprice (FT4) (including equipment)	98,811	7	44,500					44,500
Replace 2012 Caprice (FT6) (including equipment)	106,973	7	50,700					50,700
Replace 2014 Tahoe (FT2) (including equipment)	87,302	6		44,500				44,500
Replace 2009 Crown Vic (FT7) (including equipment)	80,817	11		30,000				30,000
Replace 2013 Tahoe (FT11) (including equipment)	86,612	6		44,500				44,500
Replace 2015 Tahoe (FT8) (including equipment)	48,629	6			44,500			44,500
Replace 1995 Ford (FT21) Crime Scene Vehicle	188,043	25			30,000			30,000
Replace 2014 Impala (FT13) (including equipment)	27,141	7			30,000			30,000
Replace 2016 Tahoe (FT5) (including equipment)	23,567	6				44,500		44,500
Replace 2016 Equinox (FT10) (including equipment)	15,206	6				30,000		30,000
Replace 2014 Caprice (FT12) (including equipment)	24,419	8				44,500		44,500
Replace 2018 Fusion (FT9) (including equipment)	286	5					30,000	30,000
Replace 2018 Ford SUV (FT14)(including equipment)	11,053	6					44,500	44,500
Total			143,900	119,000	104,500	119,000	74,500	560,900

2019			
Police Vehicles & Equipment			\$143,900
Three vehicles will be due for replacement. Makes/models will be reviewed for best value, need and availability at the time of purchase.			
Replace 2013 Tahoe (FT-1) with pick-up*	105,030 miles (5/18)	\$36,700	
Equipment and Installation		\$12,000	
Subtotal		\$48,700	
Replace 2012 Caprice (FT-4) with Ford SUV or car	98,811 (5/18)	\$30,500	
Equipment and Installation		\$14,000	

Subtotal		\$44,500	
Replace 2012 Caprice (FT-6) with possible Hybrid patrol vehicle or SUV	106,973 miles (5/18)	\$36,700**	
Equipment and Installation		\$14,000	
Subtotal		\$50,700	
Total		\$143,900	

The department is asking for the acquisition of a pick-up truck to replace the 2013 Chevrolet Tahoe (FT-1). The pick-up truck would benefit the department in several different ways.

First, as we phase out our fleet of large Chevrolet Tahoes, we will need a vehicle that is capable of towing an ATV trailer as well as the regional DUI task force trailer. The ATV's are very helpful in situations involving lost persons or access to rural areas. The DUI trailer stores items such as generators, signs, reflective gear and lighting equipment necessary for safety.

Officers often receive calls for service that require the transport of large items such as bicycles, evidence or temporary stop signs. We often find alternative ways to handle large items (wait for Public Works staff or transport the items in pieces).

Finally, the truck would provide a safe, efficient way to transport firearms training-related items to the range. The region does not have a dedicated law enforcement firearms training range. As such, the instructors must transport backers, targets, firearms, EMS equipment and other items to the range each training session.

**If Hybrid technology develops enough to provide a suitable patrol vehicle, the department is willing to purchase one as a replacement for the 2012 Chevrolet Caprice (FT-6). We will evaluate the price, performance, dependability, maintenance costs and functionality to determine the vehicle's suitability for our needs and goals. At this time, the cost of the vehicle is an estimate.

2020

Police Vehicles & Equipment		\$119,000	
Replace 2014 Tahoe (FT-2) with Ford SUV	87,302 miles (5/18)	\$30,500	
Equipment and Installation		\$14,000	
Subtotal		\$44,500	
Replace 2009 Crown Vic (FT-7) with Hybrid	80,817 (5/18)	\$25,000	
Equipment and Installation		\$5,000	
Subtotal		\$30,000	
Replace 2013 Tahoe (FT-11) with Ford SUV	86,612 miles (5/18)	\$30,500	
Equipment and Installation		\$14,000	
Subtotal		\$44,500	
Total		\$119,000	

2021			
Police Vehicles and Equipment			\$104,500
Replace 2015 Tahoe (FT-8) with Ford SUV	48,629 miles (5/18)	\$30,500	
Equipment and Installation		\$14,000	
Subtotal		\$44,500	
Replace 1995 Ford (FT-21) Crime Scene Vehicle with Utility Van	188,043 (5/18)	\$25,000	
Equipment and Installation		\$5,000	
Subtotal		\$30,000	
Replace 2014 Impala (FT-13) with Hybrid.	27,141 (5/18)*	\$25,000	
Equipment and Installation		\$5,000	
Subtotal		\$30,000	
*The 2014 Impala (FT-13) will replace the 2008 Impala used by officers for out of town training (59,206 miles as of 5/18)			
2022			
Police Vehicles and Equipment			\$119,000
Replace 2016 Tahoe (FT-5) with Ford SUV	23,567 miles (5/18)	\$30,500	
Equipment and Installation		\$14,000	
Subtotal		\$44,500	
Replace 2016 Equinox (FT-10) with Hybrid	15,206 miles (5/18)*	\$25,000	
Equipment and Installation		\$5,000	
Subtotal		\$30,000	
Replace 2014 Caprice (FT-12) with car or Ford SUV	24,419 miles (5/18)	\$30,500	
Equipment and Installation		\$14,000	
Subtotal		\$44,500	
Total		\$119,000	
*The 2016 Chevrolet Equinox (FT-10) may not be replaced until 2023 depending on mileage and condition. This is a detective's vehicle. Historically, low mileage police administrative vehicles are rotated into the Planning, Zoning and Engineering fleet.			

2023			
Police Vehicles and Equipment			\$74,500
Replace 2018 Fusion (FT-9) with Hybrid	286 miles (5/18)	\$25,000	
Equipment and Installation		\$5,000	
Subtotal		\$30,000	
Replace 2017 Ford SUV with similar	11,053 miles (5/18)	\$30,500	
Equipment and Installation		\$14,000	
Subtotal		\$44,500	
Total		\$74,500	

Police Equipment

FERGUSON TOWNSHIP						
2019 – 2023 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS						
POLICE SOFTWARE & EQUIPMENT						
30.400.410.750						
Description	2019	2020	2021	2022	2023	Total
Annual RMS Maintenance Fee	included in IT					0
Replace Handguns - Cost will be reduced by trade-in value of old handguns.	15,000					15,000
Replace (5) patrol rifles	1,700	2,600				4,300
Precision Rifle	2,000					2,000
Gun safe	2,500					2,500
Tasers (15)	11,300	11,300	11,300			33,900
Axon Data Storage	12,773	12,773	12,773	12,773	12,773	63,865
Axon CAD Interface	3,960	3,960	3,960	3,960	3,960	19,800
Mobile Tablets - Replacement		6,000	4,000	6,000	4,000	20,000
Drone Shared with Patton Twp. PD		4,500				4,500
Total	49,233	41,133	32,033	22,733	20,733	165,865

2019		
Police Software and Equipment		\$65,233
Annual Records Management Maintenance Fee – The fee is used to maintain the regional record management system. The records system is shared by State College, Penn State, Patton Township and Ferguson Township. Shared information systems are not common in Pennsylvania. The Centre Region has been a leader in this issue. <i>This item is included in IT rather than police. It is included here for reference.</i>	\$16,000	
Replace Handguns – Studies show that police service weapons should be replaced every five years. Springs, trigger mechanisms and other parts are known to break or crack increasing the risk of catastrophic failures. Our current handguns are five years old. The trade-in value of the current handguns is approximately \$7,000. We need to purchase new level II holsters for the new handguns.	\$15,000	
Patrol Rifles – Each patrol vehicle is equipped with a patrol rifle. The current rifles are military surplus, Vietnam era, rifles. We are seeking to replace two of the five need to be replaced.	\$1,700	
Precision Rifle – The department is a member of the regional emergency response team. The team provides special weapons and tactics for high-risk situations and special events. Because of the precision characteristics of this weapon, it can only be used by one officer.	\$2,000	
Gun Safe – The department is seeking to purchase two gun safes. One will be used for long-term storage in the firearms room and the second will provide easy storage and access in the patrol area.	\$2,500	

Taser – The department is seeking to replace old Tasers. We will replace five units per year for the next three years.	\$11,300	
Axon – As part of our five-year agreement with Axon, we have unlimited data storage for video footage.	\$12,773	
Axon – As part of a five-year agreement with Axon, we utilize a CAD interface to label each video. The labeling is used to set retention requirements set by law. Without the interface, officers would manually label each video.	\$3,960	
Total	\$65,233	
2020		
Police Software and Equipment		\$55,933
Annual Records Management Maintenance Fee – The fee is used to maintain the regional record management system. The records system is shared by State College, Penn State, Patton Township and Ferguson Township. <i>This item is included in IT rather than police. It is included here for reference</i>	\$16,800	
Patrol Rifles – Each patrol vehicle is equipped with a patrol rifle. The current rifles are military surplus, Vietnam era, rifles. We are seeking to replace the remaining three rifles that need to be replaced.	\$2,600	
Taser – The department is seeking to replace old Tasers. We will replace five units per year for the next three years.	\$11,300	
Axon – As part of our five-year agreement with Axon, we have unlimited data storage for video footage.	\$12,773	
Axon – As part of a five-year agreement with Axon, we utilize a CAD interface to label each video. The labeling is used to set retention requirements set by law. Without the interface, officers would manually label each video.	\$3,960	
Mobile Tablets – The current in-car tablets will begin to be replaced with newer units. As the patrol vehicles are replaced, we will phase in new tablets. Two units will be replaced in 2020. The estimation includes tablets and docking stations.	\$4,000	
Unmanned Aerial Vehicle – The UAV would be shared are used for tactical situations, crime scenes and crash scene documentation.	\$4,500	
Total	\$55,933	
2021		
Police Software and Equipment		\$47,633
Annual Records Management Maintenance Fee – The fee is used to maintain the regional record management system. The	\$17,600	

records system is shared by State College, Penn State, Patton Township and Ferguson Township. <i>This item is included in IT rather than police. It is included here for reference</i>		
Taser – The department is seeking to replace old Tasers. We will replace five units per year for the next three years.	\$11,300	
Axon – As part of our five-year agreement with Axon, we have unlimited data storage for video footage.	\$12,773	
Axon – As part of a five-year agreement with Axon, we utilize a CAD interface to label each video. The labeling is used to set retention requirements set by law. Without the interface, officers would manually label each video.	\$3,960	
Mobile Tablets – The current in-car tablets will begin to be replaced with newer units. As the patrol vehicles are replaced, we will phase in new tablets. One unit will be replaced in 2020. The estimation includes tablets and docking stations.	\$2,000	
Total	\$47,633	
2022		
Police Software and Equipment		\$39,233
Annual Records Management Maintenance Fee – The fee is used to maintain the regional record management system. The records system is shared by State College, Penn State, Patton Township and Ferguson Township. <i>This item is included in IT rather than police. It is included here for reference</i>	\$18,500	
Axon – As part of our five-year agreement with Axon, we have unlimited data storage for video footage.	\$12,773	
Axon – As part of a five-year agreement with Axon, we utilize a CAD interface to label each video. The labeling is used to set retention requirements set by law. Without the interface, officers would manually label each video.	\$3,960	
Mobile Tablets – The current in-car tablets will begin to be replaced with newer units. As the patrol vehicles are replaced, we will phase in new tablets. Two units will be replaced in 2020. The estimation includes tablets and docking stations.	\$4,000	
Total	\$39,233	
2023		
Police Software and Equipment		\$38,133
Annual Records Management Maintenance Fee – The fee is used to maintain the regional record management system. The records system is shared by State College, Penn State, Patton Township and Ferguson Township. <i>This item is included in IT rather than police. It is included here for reference.</i>	\$19,400	

Axon – As part of our five-year agreement with Axon, we have unlimited data storage for video footage.	\$12,773	
Axon – As part of a five-year agreement with Axon, we utilize a CAD interface to label each video. The labeling is used to set retention requirements set by law. Without the interface, officers would manually label each video.	\$3,960	
Mobile Tablets – The current in-car tablets will begin to be replaced with newer units. As the patrol vehicles are replaced, we will phase in new tablets. One unit will be replaced in 2020. The estimation includes tablets and docking stations.	\$2,000	
Total	\$38,133	

PLANNING AND ZONING DEPARTMENT

The total proposed capital costs for the Planning and Zoning Department totals **\$1.1 Million 7.5%** of the **Capital Reserve Fund Requests** for the five years.

PLANNING STAFFING

The Department of Planning & Zoning would like to suggest adding a staff member consistent with the 2016 Strategic Plan. To follow the Board of Supervisors lead in implementing the Ferguson Township Strategic Plan through the CIP Process, under the Goal of Economic Development, establish a Township Economic Advisory Group and consider the employment of an Economic Development Director (Coordinator). We would request projecting the position out to 2021, and suggest a salary at approximately \$70,000. A job description will need to be developed, and the structure of a potential citizen-based advisory group or commission will need to be developed before hire.

Organizational Chart



FERGUSON TOWNSHIP						
2019 – 2023 CIP STAFFING						
PLANNING STAFFING						
Direct Costs Estimate	2018	2019	2020	2021	2022	Total
Salary				70,000	70,000	140,000
Health/Eye/Dental				28,894	30,339	59,233
Life/Disability Insurance				included	included	0
Pension				7,000	7,000	14,000
Employer Taxes				5,475	5,475	10,950
Workers Comp				3,458	3,458	6,916
Total	0	0	0	114,827	116,272	231,099

Department Activities

The Department of Planning & Zoning is responsible for the regulation of land use activity in the township including all subdivision and land development activity. Staff reviews plan submissions for any new construction or alterations to ensure compliance with township ordinances. Additionally, the department conducts inspections on all building activity in the township.

The Zoning Administrator and Ordinance Enforcement Officer are responsible for the enforcement of township ordinances as they relate to items such as snow removal, abandoned vehicles, lawn maintenance, and more.

2018 Accomplishments

In June 2016, the Planning & Zoning Director recommended Environmental Planning & Design of Pittsburgh, PA to complete the revisions to the Zoning and Subdivision & Land Development Ordinances with the assistance of both staff and steering committee. To date, staff and consultants have not only worked with the Steering Committee, but also the Ferguson Township farming community on necessary adjustments to the rural district regulations. In May of 2018, staff worked with the Agricultural Ad Hoc Advisory Committee on ordinance recommendations for the Rural Agricultural, Rural Residential and Agricultural Research Zoning Districts. Also, the Board of Supervisors and Planning Commission also met and jointly discussed components of the ordinance revisions. Suggested revisions from the Ag Ad Hoc Advisory Committee and the joint meeting have been forwarded to the consultant as we will be working from the 3rd working draft in mid-summer of 2018.

Planning and Zoning staff also worked with the appointed Source Water Protection Advisory Committee to develop recommendations on the Proposed Source Water Protection Overlay District and Map. Throughout the beginning of 2018, staff met with the committee and will be developing a list of recommendations in mid-July.

In late 2017, the Board of Township Supervisors adopted the revised Official Map that is now consistent with the 2015 Centre Region Bike Plan. The Ferguson Township Public Works Department has initiated a Transportation Mobility Study that will hopefully implement several proposed bike facility projects such as Blue Course Dr./Clinton Ave., Corl St., Aaron Dr. (West & East), Martin St. Connection and several others that may be outlined as priorities in the coming year.

Also, in late 2018 and early 2019, Environmental Planning & Design will prepare to assist staff along with a neighborhood-focused steering committee to complete a comprehensive update to the Terraced Streetscape District. The update will accomplish coordination with neighborhood stakeholders, Penn State University interests and synchronization with Borough ordinance efforts in the West End. The update will include a review of existing ordinance provisions, deliberation of options and refinements, along with enhancement of dimensional and general design standards.

Strategic Plan Alignment

The Capital Improvement Plan seeks to advance the goals, objectives, and action steps as outlined in the Ferguson Township Strategic Plan. Over the next five years, several of the Strategic Plan items will be accomplished through the proposed expenditures in the Capital Improvement Plan.

Mobility Study Implementation (2019 - 2023)

1) Financial

- a. Make realistic estimates of program costs (Staff).

Permitting Software (2019)

1) Best Management Practices

- a. Ensure adequate staffing and resources necessary to carry out Township services and programs (Staff, Board)

Land Use Master Plan (2020) & Terraced Streetscape District (2019)

3) Growth Management

- a. Identify and complete (develop) plans for specific small areas. (Board, Staff, Planning Commission)
- b. Develop a future land use plan (Comprehensive Plan). (Staff, Planning Commission, Board)
- c. Develop a Township housing plan to provide for low and moderately priced housing in the Township (workforce housing). (Staff, Regional input, possible ad hoc advisory group)

4) Environmental Stewardship

- b. Make certain that land development regulations and development plans are consistent with environmental values (Staff, Planning Commission, Board)

9) Partnerships and Regional Thinking

- b. Work towards regional cooperation on issues that affect the entire Centre Region

Economic Development Coordinator (2021)

2) Economic Development

- a. Establish an economic development advisory group (with economic development expertise).
- b. Consider the employment of an economic development director (full-time, part-time, or a contracted service). This individual or contractor would be responsible for assisting and supporting existing businesses to help them prosper and expand in Ferguson Township. He/she would be the Township's liaison with the business development community. He/she would develop an inventory of vacant commercial and industrial sites and would make that information available to interested parties. He/she would identify and pursue programs and grants to support economic development in Ferguson and would have responsibility for managing the Community Development Block Grant Program. (Board to initiate, staff to implement)

8) Promotion of Municipal Identity

- a. Develop our Sense of Place by developing a vibrant Town Center, preserving our agricultural heritage, and promoting the features that make the Township unique. (Staff)

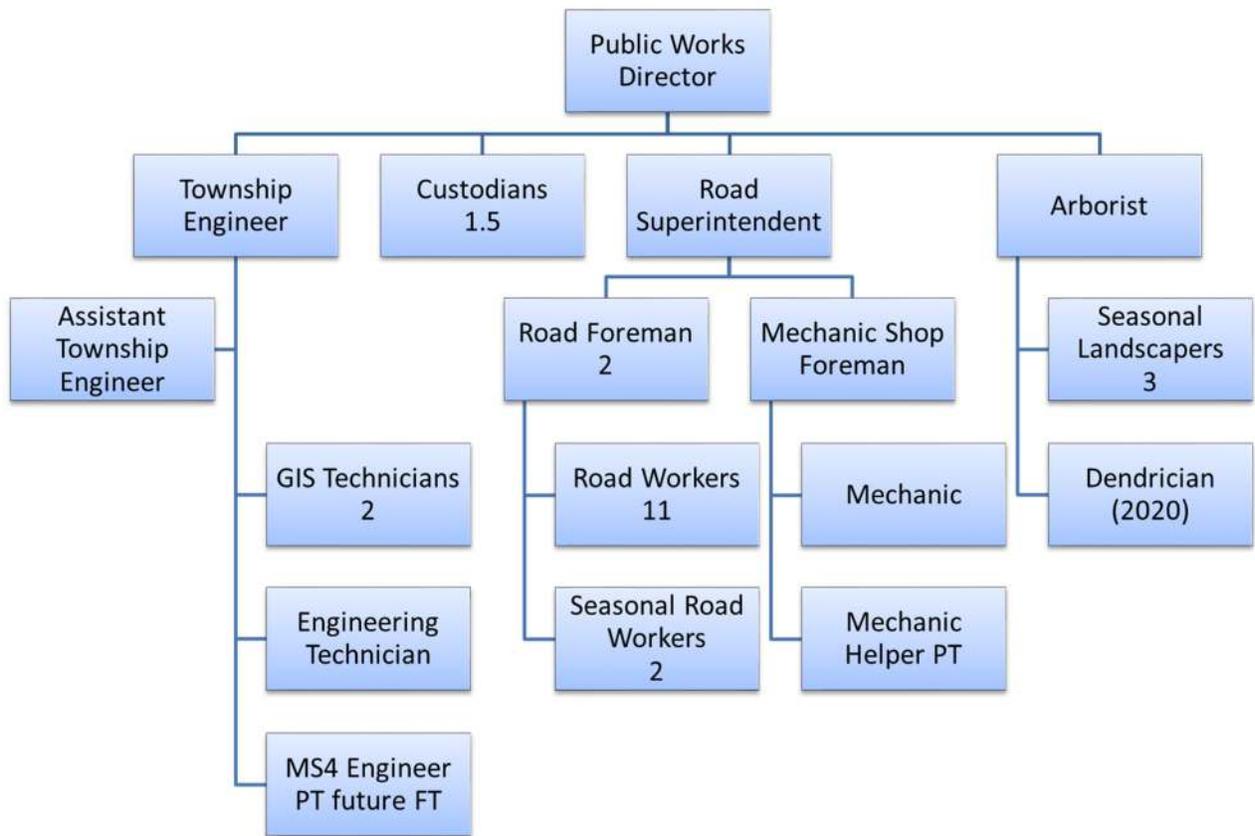
Planning & Zoning Department Requests

2019	
Terraced Streetscape District	\$25,000
<p>Since its inception in 2011, the Terraced Streetscape District along the West College Avenue corridor has not developed as envisioned through the ordinance provisions and design manual. Several obstacles to the successful development of the district, including, but not limited to pedestrian connectivity, market demand challenges with property owners and more have caused the corridor to stagnate in a state of functional blight. Elected officials and Planning Departments within Ferguson Township and the Borough of State College have expressed an interest in working together to overcome these challenges and create a walkable, mixed-use neighborhood that creates a gateway into both municipalities. Environmental Planning & Design of Pittsburgh will be assisting Township staff and a proposed Plan Steering Committee to develop revised ordinance text and design standards that improve the potential for pedestrian connectivity and attractive mixed-use opportunities.</p>	
Permitting Software	\$25,000
<p>Ferguson Township, in coordination with the Centre Region Codes, utilizes Tyler Munis Software for overall permit cataloging and processing Tyler Munis has long been an onerous software and often unavailable to multiple users during permit processing or locking users out on occasion, causing workflow inefficiencies for staff and ultimately the applicant. A new municipal permitting software platform that performs at a more efficient scale is necessary to streamline the application process and integrate with existing financial software known as Springbrook.</p>	
2020	
Land Use Master Plan	\$50,000
<p>Several documents guide the township's planning decisions including the Official Map, Strategic Plan, and Centre Region Comprehensive Plan. A Land Use Master Plan would greatly supplement the value of those documents by providing an expanded, consolidated vision for community planning. The plan will focus on issues affecting the township such as a needs assessment on mixed-use development, areas where growth could be concentrated outside of the Regional Growth Boundary, accommodation of additional land use, and promotion of economic development. This item will cover the cost of a consultant to assist in the preparation of this document.</p>	
2020 - 2023	
Mobility Study Implementation	\$250,000/yr.
<p>Ferguson Township Public Works Department is currently carrying out a Transportation Mobility Study that will identify recommended mobility improvement projects and provide concept illustrations and budgetary cost estimates. Improvements projects include proposed bike facilities that have been identified in both the 2015 Centre Region Bike Plan and the 2017 Ferguson Township Official Map. Capital Improvement funds can be utilized as a match for various state and federal transportation programs such as the Transportation Alternatives Set-</p>	

PUBLIC WORKS DEPARTMENTS

PUBLIC WORKS STAFFING

The Public Works Department organizational chart is depicted below. New personnel may be requested in this 5-year CIP to meet ever-increasing demands of the Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit requirements and the demand for road maintenance and capital road repairs. The organizational chart reflects current and proposed staffing.



FERGUSON TOWNSHIP						
2019 – 2023 CIP STAFFING						
PUBLIC WORKS STAFFING						
Staffing		1 dendrition				
Direct Costs Estimate	2019	2020	2021	2022	2023	Total
Salary		80,000	85,000	85,000	85,000	335,000
Health/Eye/Dental	0	48,000	48,000	48,000	48,000	192,000
Life/Disability Insurance	included	included	included	included	included	0
Pension	0	8,000	8,500	8,500	8,500	33,500
Employer Taxes		6,240	6,623	6,623	6,623	26,109
Workers Comp	0	4,800	5,100	5,100	5,100	20,100
Total	0	147,040	153,223	153,223	153,223	606,709
		2	2	2	2	
		1 dendrition				
		1 road crew				

BUILDINGS AND GROUNDS SECTION

The total proposed capital costs for the Buildings & Grounds Section totals **\$8.1 Million or 56.8%** of the **Capital Reserve Fund Requests** for the five years.

The Public Works Capital Building Fund Appropriation for building systems saves for the future replacement of building systems such as HVAC, roofs, doors, windows, flooring, light fixtures, security door system, cameras, fire system and panels, and audio-video systems and fixtures.

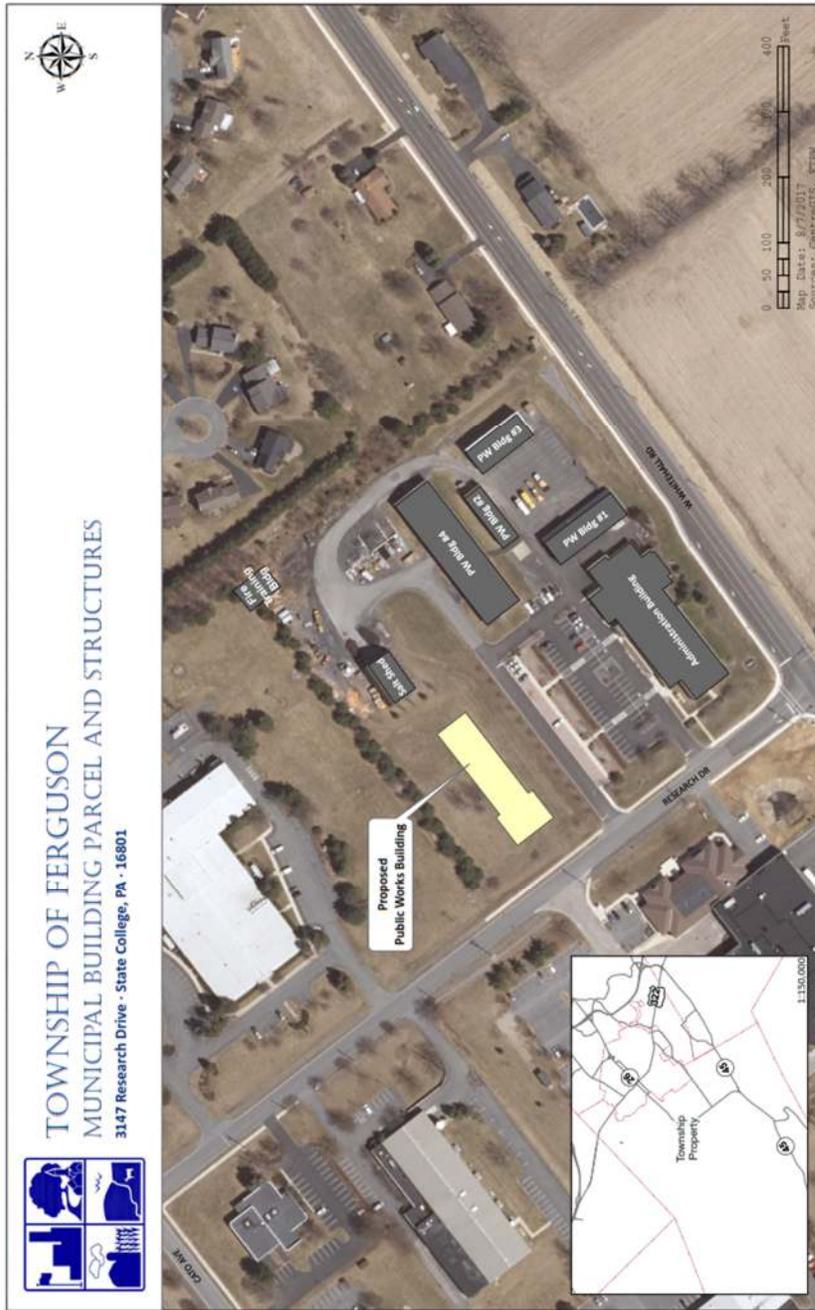
In 2018, architectural and engineering design of a new LEED Gold Public Works building began. Some of these design expenses are expected to carry over to 2019.

In 2019, the CIP includes the construction of this new building, expected to be approximately 13,753 square feet including truck lifts, truck mechanic bays, storage, offices, break room and showers, bathrooms, truck wash facility, and a fueling station. Square foot costs for such a building can vary from \$150/SF to \$350/SF depending on amenities, code requirements, LEED requirements, location and construction type. The budget includes approximately \$275/SF for a new 13,753 SF building constructed of steel frames on concrete footers, metal trusses, concrete slab on grade, rubber on insulated steel roof, architectural block, brick and metal siding and fitted up as a public works garage described above. This new building should serve the needs of the Public Works Department well into the future. In recent years, the Township has hired additional road workers and an arborist to better serve the needs of the growing Township. In addition, the acquisition of one man leaf collectors, brush grappler truck, and other equipment requires maintenance and storage. Currently, gross truck washing occurs outside on a stone pit, and detailed washing occurs inside buildings with narrowly slotted floor drains. The new building will be better suited for vehicle washing which is proven to increase the life expectancy of snow fighting equipment used to apply road salt. The new building will provide separate facilities such as locker rooms, bathrooms, and showers for men and women. As noted above, the building will be designed and operated to meet LEED requirements (Gold as the goal) and structural accommodations will be made to allow for the future installation of roof-top solar arrays. The solar system may be installed through a power purchase agreement to take advantage of tax credits and not be made as a capital purchase. The new building site plan does include a dual electric vehicle charging station to accommodate future Township owned electric vehicles. The

plan will show any required additional parking and any upgrades to the stormwater management plan.

This initiative is consistent with goal numbers 4) Environmental Stewardship, 5) Best Management Practices, 7) Promotion of Clean Renewable Energy of the Strategic Plan.

The below map of the Township property at 3147 Research Drive shows existing buildings and the proposed location for the new public works facility.



The Public Works Department requests the following buildings and grounds items for this planning period.

FERGUSON TOWNSHIP					
2019 – 2023 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS					
BUILDINGS & GROUNDS					
30.400.409.750					
Description	Year	Expense	Grants	Loans	Cash
New 14,000 ft PW Maintenance Facility inclusive	2019	4,500,000		4,500,000	0
Camera System Additions	2019	2,250			2,250
Fitness Equipment	2019	2,000			2,000
Renovate Administrative Space inclusive	2019	500,000		500,000	0
Door Access System hardware	2019	7,900			7,900
Fitness Equipment	2020	2,000			2,000
Fitness Equipment	2021	2,000			2,000
Fitness Equipment	2022	2,000			2,000
Fitness Equipment	2023	2,000			2,000
New Fire Station Land	2019	80,000			80,000
New Fire Station	2021	2,800,000		2,800,000	0
	2020				0
					0
					0
Total		7,900,150	0	7,800,000	100,150
EXPENDITURES					
Subtotals by Year	2019	5,092,150	0	5,000,000	92,150
	2020	2,000	0	0	2,000
	2021	2,802,000	0	2,800,000	2,000
	2022	2,000	0	0	2,000
	2023	2,000	0	0	2,000
Total		7,900,150	0	7,800,000	100,150

FERGUSON TOWNSHIP								
2019 – 2023 CIP CAPITAL PROJECTS DETAIL-CASH BASIS								
PUBLIC WORKS ROAD PROJECTS								
FUND	CAT	DESCRIPTION	2019	2020	2021	2022	2023	TOTAL
R=road, D=stormwater, B=bicycle, O=other								
LF	R	ADA Curb Ramp Replacements	90,000	95,000	100,000	105,000	110,000	500,000
TIF	R	ADA Handicap Ramps		12,000	16,000	68,000	63,000	159,000
TIF	R	Appletree Circle	33,000					33,000
TIF	R	ARLE Traffic Signal Performance Metrics (grant)	639,900					639,900
TIF	R	Aveberry Circle	41,000					41,000
TIF	R	Bergman Court		83,000				83,000
TIF	R	Bikepaths, parking lots, tennis courts, sealcoating, line striping	32,000	33,000	35,000	36,000	38,000	174,000
TIF	R	Blade Drive microsurfacing	9,000					9,000
TIF	R	Blade Drive Turnaround	58,000					58,000
TIF	R	Blue Course Drive		141,000			416,000	557,000
TIF	R	Brooklawn Road	29,000					29,000
TIF	R	Clinton Ave					75,000	75,000
TIF	R	Dogwood Circle	33,000					33,000
TIF	R	Ernest Lane					142,000	142,000
TIF	R	Fairfield Circle			74,000			74,000
TIF	R	Goddard Circle	55,000					55,000
TIF	R	Harold Drive		84,000				84,000
TIF	R	Harris Street					132,000	132,000
TIF	R	Kansa Ave Improvements	236,000					236,000
TIF	R	Left Turn Arrows Teaberry Lane/Blue Course Drive	21,000					21,000
TIF	R	Linn Street				201,000		201,000
TIF	R	Manor Court				29,000		29,000
TIF	R	Marengo Road		393,000				393,000
LF	R	Microsurfacing	247,000	259,000	272,000	286,000	300,000	1,364,000
CR	D	MS4 Cheasapeake Bay Pollutant Reduction Project	105,000	110,000	116,000	122,000	128,000	581,000
TIF	R	Muncy Road			104,000			104,000
TIF	R	North Hills Place					92,000	92,000
TIF	R	North Allen Street				228,000		228,000
TIF	R	Oak Glenn Road				39,000		39,000
TIF	R	Old Gatesburg Road			360,000			360,000
TIF	R	Pamela Circle			58,000			58,000
CR	D	Park Hills Drainage	316,000	276,000	232,000			824,000
TIF	R	Park Crest Lane					86,000	86,000
TIF	R	Park Lane	54,000					54,000
LF	O	Pavement Markings	80,000	84,000	88,000	92,000	97,000	441,000
CR	D	Paving Sections of various parks	12,000	41,000				53,000
CR	R	Pine Grove Mills LED light conversion	22,000	106,000				128,000
TIF	R	Princeton Drive	168,000					168,000
TIF	R	Ramblewood Road					80,000	80,000
TIF	D	Reline/Line CMP pipes various places	0	472,000	483,000	581,000	552,000	2,088,000
TIF	D	Video & Clean CMP Pipes various places	18,000	16,000	26,000	15,000		75,000
TIF	D	Repair Stormwater inlets & replace tops	17,000	0	21,000	75,000	87,000	200,000
TIF	R	Replace concrete curbs	42,000	29,000	166,000		31,000	268,000
LF	R	Road Materials	68,000	72,000	75,000	79,000	83,000	377,000
LF	O	Road Salt	121,000	127,000	133,000	140,000	147,000	668,000
TIF	R	Rosewood Circle				38,000		38,000
TIF	R	Sandra Circle			28,000			28,000
TIF	R	Science Park Traffic Signal	53,000	55,000	579,000			687,000
TIF	R	Sheffield Court					16,000	16,000
TIF	R	Stonebridge Drive				228,000		228,000
TIF	R	Stafford Circle					32,000	32,000
TIF	R	Sleepy Hollow Drive					287,000	287,000
TIF	R	Tadpole Road	344,000					344,000
TIF	R	Timothy Lane microsurfacing	14,000					14,000
TIF	R	Timothy Lane cul-de-sac	16,000					16,000
TIF	R	Westwind Drive					11,000	11,000
TIF	R	Whitehall Road				327,000	307,000	634,000
TIF	R	Williamsburg Drive					85,000	85,000
								0
Total			2,973,900	2,488,000	2,966,000	2,689,000	3,397,000	14,513,900
EXPENDITURES BY FUND								
CR	D		433,000	427,000	348,000	122,000	128,000	1,458,000
CR	R		22,000	106,000	0	0	0	128,000
TIF	B		0	0	0	0	0	0
TIF	D		35,000	488,000	530,000	671,000	639,000	2,363,000
TIF	R		1,877,900	830,000	1,420,000	1,194,000	1,893,000	7,214,900
LF	R		405,000	426,000	447,000	470,000	493,000	2,241,000
LF	O		201,000	211,000	221,000	232,000	244,000	1,109,000
Total			2,973,900	2,488,000	2,966,000	2,689,000	3,397,000	14,513,900

Chesapeake Bay Pollution Reduction Plan (CBPRP)

A condition of the Township's NPDES MS4 permit is the completion of a CBRP. As such, new pollution reduction requirements will be required. A specific plan was developed showing how pollutant loads to the Chesapeake Bay will be reduced by specific projects. The plan shows pollutant reduction to impaired waterways (Slab Cabin Run and Spruce Creek). The Pollutant Reduction Plan was prepared in 2017/2018 on a regional basis with projects developed for each municipality. The CIP includes funding in each year to design, acquire right of way, and construct stream channel restoration projects as required by the above.

In 2018, the Township completed a stormwater fee feasibility study (SFFS). In 2018, the Township plans to complete phase 2 of the study to include a cost of service analysis, finalize rate structures, public education, and ordinance preparation. If implemented, a stormwater fee can be used to fund stormwater improvement projects, staff and comply with MS4 requirements, replace failing stormwater infrastructure, address flooding, stormwater basin maintenance, and acquire land for passive stormwater management.

The CBPRP and SFFS are consistent with goals 1) Financial Stability, 4) Environmental Stewardship, 5) Best Management Practices for Operations, 6) Increase Participatory Government, and 9) Partnerships and Regional Thinking of the Strategic Plan.

Road Improvements by Contract:

Each year a portion of the roadways in the Township are inspected and the condition assessed and documented in the form of a pavement inspection report. This report is utilized by the Public Works Director to prioritize capital road improvements including paving and determine appropriate roadways for road surface preservation techniques such as microsurfacing. In 2018, the Public Works Department utilized Paver software to assess road conditions.

Microsurfacing is a cold-mix paving system; it is not a hot-mix paving as is applied asphalt pavement. The material consists of small aggregate, asphalt emulsion, water and mineral fillers, and is generally applied in a 3/8" thick layer. A durable asphalt seal is applied to roads that have begun to show signs of aging and minor distress. By retarding the surface's natural breakdown, this process extends the pavement's lifespan approximately seven years. Microsurfacing adds no structural value to the pavement, and therefore, roadways that have deteriorated beyond a certain point are generally not good candidates for this process.

Candidates for paving are listed as line items in the CIP. Due to the specialized equipment used in paving operations, large paving projects are competitively bid. Some small paving projects on low volume roads are self-performed by FTPW with rented equipment. Often these small paving projects can be done cost-effectively internally due to the mobilization costs and low economy of scale for a contractor for such small projects. It is also beneficial for the road crew to keep and enhance paving skills.

The CIP lists roads proposed for capital improvements Depending on the severity of pavement distress or underlying base course failure, projects may include cold in-place recycling, select base repair, milling or a combination of these techniques. In most cases, the existing asphalt surface will be overlaid. Budget pricing is based on historical cost data for the township and converted to linear foot estimates (prior to bidding, a detailed engineering estimate is prepared for each project). For example, cold in-place recycling or reclamation with an asphalt overlay of a 26 foot wide residential street in 2018 is estimated to cost \$75/linear foot. Other activities such as sign installation, mailbox replacement or resetting, topsoil or shoulder back-up, and seed and soil supplements may result in additional costs. Depending on the quantity, new concrete curb is estimated at \$25 per linear foot in 2018. Additional costs are included in the

CIP for storm-pipe, curb, or sidewalk ramps as needed. These additional costs are reflected either in the linear foot price for the roadway in the CIP or as separate line items. Additional costs are incurred if residential driveway aprons are paved as part of a capital project. Costs are escalated by a construction inflation index in future years.

Storm Pipe Improvements

Prior to a roadway being overlaid with new asphalt, the condition of the inlets and storm pipe is assessed either visually or by remote-controlled camera. The CIP reflects any anticipated costs due to inlet and storm pipe replacement. New inlets set in place can cost \$3,000 each, less if just the top is being replaced. The cost of storm pipe replacement varies based on the length of pipe to be replaced, the diameter of the pipe, the type of pipe material, and other work associated with the storm pipe replacement such as other utility relocation costs and if the above curb or sidewalk needs replaced. A typical 18-inch diameter high-density polyethylene (HDPE) pipe installed will add about \$75/linear foot to the project cost plus roadway and curb restoration. Structural lining of an old corrugated 18-inch diameter pipe could cost \$100/linear foot.

Americans with Disability Act (ADA) Handicap Accessibility Sidewalk Intersection Ramp Improvements

In accordance with federal and state regulations, sidewalk intersection ramps are upgraded to current ADA standards. These upgrades are required whenever a road is paved or microsurfaced.

For roads to be paved, the concrete work is included in the CIP as a line item. The cost varies for each ramp depending on the existing grades and number of sidewalk blocks that need to be removed to reconstruct the ramp to the proper grades. \$3,500 is budgeted for each ramp that needs to be replaced. Truncated domes are required at these crossings. The Township Engineer may determine that it is technically infeasible to upgrade some ramps.

Traffic Signals:

Automated Red Light Enforcement (ARLE) Grant – Traffic Signal Optimization Project

Through ARLE, the Township will receive \$498,000 to improve performance and communication at all 20 of our traffic signals. The new system will monitor real-time traffic in the Township and staff will be better equipped to fine-tune the signals to changing traffic demands.

Green Light Go (GLG) Grant – West College Ave/Corl Street Pedestrian Accessibility Upgrade

Through Green Light-Go, the Township was awarded \$176,084 to upgrade the traffic signal at the intersection of West College Avenue and Corl Street in 2018. The upgrades include full pedestrian movements, which are currently limited. This project will tie into the Township's Streetscape Project constructed in 2017 which will help make pedestrian traffic safer.

Green Light Go (GLG) Grant – Traffic signal vehicle detection upgrade

The Township was awarded \$80,000 in 2018 to upgrade a number of traffic signals to digital radar vehicle detection replacing ground loops or video detection making the signal operations more reliable. Staff will continue to apply for these grants.

The preparation of the Road Improvement section of the CIP is consistent with goal 1a Financial Stability - Make realistic estimates of program costs of the Strategic Plan

PUBLIC WORKS EQUIPMENT

The following charts depict the capital equipment requested by the Public Works Department during the term of the capital plan. Public Works equipment requests total **\$2.5 Million or 17.5%** of the **Capital Reserve Fund Requests**.

Each year a condition report is generated by the mechanic and road superintendent to assist with preparation of the equipment CIP. Based on the condition report and historical useful life of similar equipment, the CIP is prepared. The equipment fleet comprised of vehicles over \$25,000 has an estimated 2018 value of \$2,012,000. The annual straight-line cost using the useful life of each piece of equipment is estimated at \$329,783 and is the basis of the Public Works Capital Fund Appropriation request. In addition to equipment replacement requests from the above fund, certain other equipment is requested.

New Equipment/Vehicles or Replacement Equipment/Vehicles under \$25,000

FERGUSON TOWNSHIP						
2019 – 2023 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS						
NEW EQUIPMENT PUBLIC WORKS						
30.400.430.750						
Description	2019	2020	2021	2022	2023	Total
Replace 2012 Kubota zero turn mower	9,350					9,350
Traffic signal LED replacements	4,200	4,400	4,600	4,900	5,100	23,200
Overhead Luminaire LEDs	3,780	2,000	4,200	4,375	4,600	18,955
Grappler Vehicle (80% grant)	209,681					
Replace Signal control cabinet Science Park/W College	10,500					10,500
Replace 2003 variable message sign		22,050				22,050
Replace 2003 variable message sign	22,050					22,050
Replace Ingersoll jumping jack compactor	3,000					3,000
Salt Spreader for Tool Cat UTV	4,800					4,800
Spill Response kits for FTPW vehicles	2,625					2,625
Upgrade 2 to 3 intersection signals per year to RADAR (80% GLG grant)	105,000	110,000	105,000	120,000	127,500	567,500
Ground pressure mats (4X8)(12)		3,530				3,530
Welding Table & Exhaust System	9,400					9,400
Small Paver to fit HTC conveyor for road widening				6,380		6,380
Wheel Balancer	5,200					5,200
						0
Total	389,586	141,980	113,800	135,655	137,200	708,540

Replacement Equipment

Public Works has a separate bank account for equipment greater than \$25,000 original cost. The account activity and balance are included in the following table. The funding is based on estimated current costs and inflated annually by 5%. The costs do not reflect any trade-in value or sale value of the existing equipment, which could be substantial. The sale amounts are recorded as revenue in the capital reserve fund.

The details of the expenditures out of the sinking fund are itemized below.

FERGUSON TOWNSHIP					
2019 – 2023 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS					
PUBLIC WORKS EQUIPMENT SINKING FUND					
30.400.430.760					
Description	Age	Year	Additions	Deductions	Balance
Beginning Balance 12/31/2018					994,000
Annual Sinking Fund Contribution		2019	262,500		1,256,500
Replace 2004 Vermeer brush chipper (90% grant)	15	2019		72,652	1,183,848
Replace 2009 Tymco street sweeper	10	2019		292,000	891,848
Replace 2003 F350 sign truck with F550 dual wheel	16	2019		72,000	819,848
Annual Sinking Fund Contribution		2020	275,625		1,095,473
Replace 2007 Caterpillar skid steer loader	13	2020		121,300	974,173
Replace 1997 Bomag roller	23	2020		52,900	921,273
Replace 2011 F550 plow truck	9	2020		121,300	799,973
Replace 2004 bucket truck	16	2020		198,450	601,523
Annual Sinking Fund Contribution		2021	289,410		890,933
Replace 2006 International single axle	15	2021		225,750	665,183
Replace 2001 Caterpillar backhoe	20	2021		150,500	514,683
Annual Sinking Fund Contribution		2022	303,875		818,558
Replace 2010 Brush Bandit chipper	12	2022		87,100	731,458
Replace 2008 single axle plow truck	15	2022		237,000	494,458
Annual Sinking Fund Contribution		2023	303,875		798,333
Replace 2010 Chevy pickup for bike paths	13	2023		153,150	645,183
					645,183
					645,183
Total			1,435,285	1,784,102	
Subtotals by Year			EXPENDITURES		
			2019	436,652	
			2020	493,950	
			2021	376,250	
			2022	324,100	
			2023	153,150	
			Total	1,784,102	

The preparation of the Equipment Replacement section of the CIP is consistent with goal 1a Financial Stability - Make realistic estimates of program costs of the Strategic Plan

PARKS AND RECREATION

The proposed five-year Capital Improvement Program Budget for Parks and Recreation (not including CRCOG) totals **\$1.5 Million or 10.4%** of the **Capital Reserve Fund Requests**. The following projects are recommended to be included in the upcoming five years of the CIP.

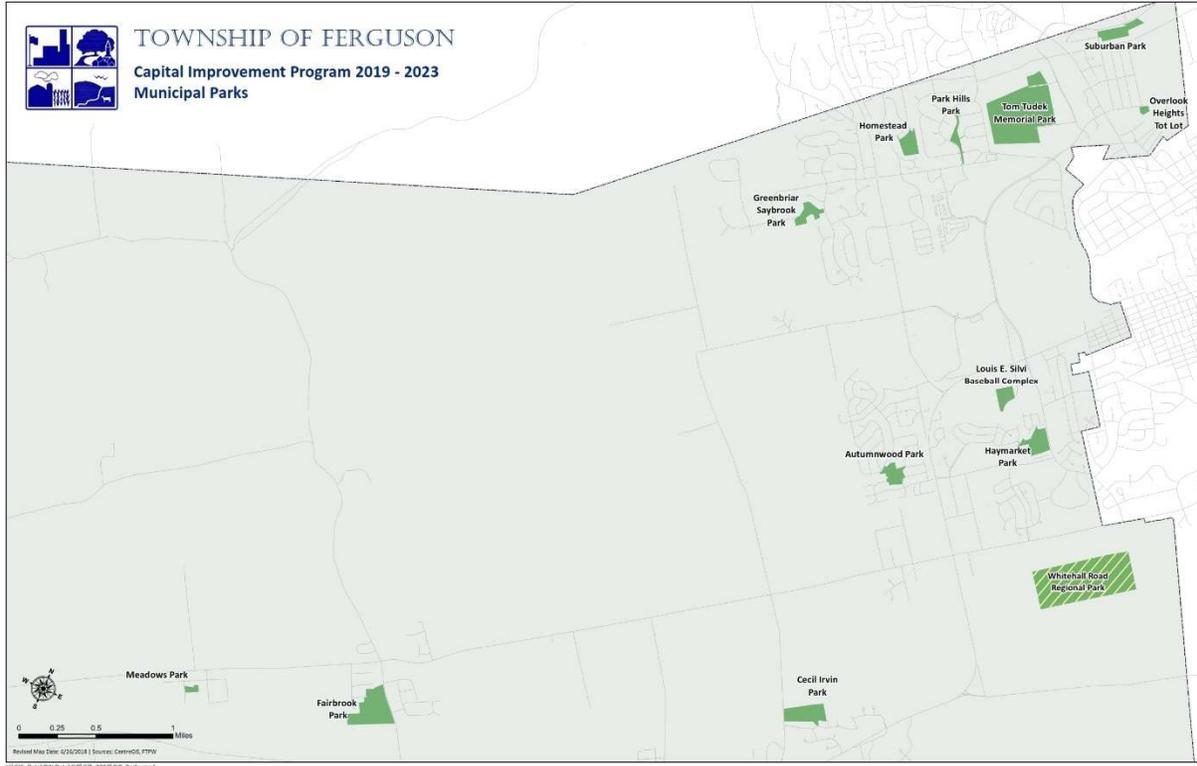
These projects represent the park improvements to meet the growing needs of the township's residents and are consistent with the Township's Recreation, Parks and Open Space Plan and each of the parks' master plans. The projects are proposed to be paid for through grant funds, parkland fee-in-lieu funds and general funds. It should be noted that the township is a partner in the Centre Region Parks and Recreation, Centre Region Parks and Recreation Authority, and in the various regional programs offered by the CRCOG. Long-term debt has been issued to renovate and expand the two regional pools and, therefore, that cost is now incorporated into the township's annual operating costs.

Three regional parks are also part of the regional parks program. Development of those parks has not been finalized. This CIP incorporates the annual capital costs to the township until financing has been finalized among the partnering municipalities. Total projected costs are of total capital expenditures plus the additional financing costs for the pools and parks.

Expenditures for Parks and Recreation have increased significantly over the past 10 years. Much of this increase in costs is associated with the development of three regional parks and the redevelopment of two regional aquatic facilities. At the municipal level, park development in accordance with approved master plans is extremely costly and many times relies upon additional grant funding.

Some of the related costs for these planned improvements may be offset by developer contributions to the parkland fee in lieu fund thus avoiding more impact on the General Fund. Nevertheless, funding for the second phases of development of the three regional parks has not yet been agreed to and could be a cost not factored into the projects found in this budget.

The 2019-2023 CIP includes two park master plans updates. Suburban Park master plan is recommended for updating due to the relocation of sanitary sewer lines and the opportunity to study and define the flood-plain through the park. Fairbrook Park master plan is also recommended to be updated with the purpose of repurposing some of the turf maintained areas to low maintenance no-mow areas and pollinator areas.



Strategic Plan Alignment

The Capital Improvement Plan seeks to advance the goals, objectives, and action steps as outlined in the Ferguson Township Strategic Plan. Over the next five years, several of the Strategic Plan items will be accomplished through the proposed expenditures in the Capital Improvement Plan.

- Objective 10.1: Promote environmental and social stewardship in parkland development.**

area of the park. The amount budgeted reflects the total cost of the project, but a 50% grant match has been requested and an award is anticipated in the fall of 2018.

Recreation, Parks, and Open Space Plan Update	\$25,000
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The Township last completed a Recreation, Parks, and Open Space (RPOS) Plan in 2009. Since that time, there have been incremental developments in Township parks, and both active and passive recreation amenities have evolved to new standards. Prior to any further substantial parkland development projects, the Plan should be updated to reflect these trends and to ensure that the Township’s investment in its parks is consistent with resident and community input. Prior iterations of the RPOS Plan have been done in-house. Given that there is a standing local parks committee, the staff is recommending engaging a consultant to assist in facilitating the RPOS Plan Update in order to produce a better outcome and engage a variety of stakeholders.

Drinking Fountain Replacements	\$10,000
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At the recommendation of the Centre Region Parks and Recreation Department, the Township began upgrading drinking fountains in parks in 2016. This item includes the equipment and installation of one drinking fountain. If Public Works staff is available to install the fountain, two fountains can be replaced with this appropriation.

Haymarket Park Pollinator Garden	\$5,000
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Haymarket Park includes a sizeable stormwater detention basin that has generated complaints from residents about ponding water and is not a very attractive feature for a park. The Township is interested in planting approximately 4.1 acres of the basin with a native pollinator mix. Additionally, approximately .14 acres of the basin is proposed to be planted with a wetland pollinator mix, and additional plantings of native trees, shrubs, and viburnums can also be incorporated. In addition to improving the appearance of the basin and helping with infiltration, this project will also be a “test case” for future plantings in stormwater basins around the Township.

2020

Songbird Sanctuary – Passive Recreation	\$75,000
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In 2016, the Township acquired 9 acres of property identified as Natural Area Conservation on the 2008 Ferguson Township Official Map. While no active recreational amenities are recommended on this site due to its unique infiltration properties, passive amenities such as hiking and biking trails are recommended to provide an enjoyable wooded area to recreate in an otherwise urbanized environment. It is anticipated that staff along with the Ferguson Township Parks and Recreation Committee will complete a Master Plan for the park in-house.

Suburban Park Improvements	\$200,000
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The Suburban Park Master Plan will be updated in 2018/2019 to account for changing recreational needs in the area, as well as planned drainage improvements by the University Area Joint Authority. This development project could be supplemented by a grant from the Department of Conservation and Natural Resources. Precise amenities that will be developed as part of this project are uncertain at this time, pending completion of the updated Master Plan. The University Area Joint Authority is also a potential partner in this project, as they have

expressed interest in the past in financing improvements to the drainage-way in exchange for nitrogen and phosphorous offsets.

Tudek Farmhouse Roof Replacement	\$15,000
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The farmhouse needs a new roof. It is anticipated that this project will be funded by the Tudek Trust Fund.

Playground Safety & Update Program	\$38,000
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To provide for equipment upgrades and replacements in order to meet playground safety standards.

Drinking Fountain Replacements	\$10,000
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At the recommendation of the Centre Region Parks and Recreation Department, the Township began upgrading drinking fountains in parks in 2016. This item includes the equipment and installation of one drinking fountain. If Public Works staff is available to install the fountain, two fountains can be replaced with this appropriation.

2021

Homestead Park Play Equipment	\$100,000
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The Parks and Recreation Department is recommending updating and adding age-appropriate play equipment and installation by a certified installer.

Drinking Fountain Replacements	\$10,000
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At the recommendation of the Centre Region Parks and Recreation Department, the Township began upgrading drinking fountains in parks in 2016. This item includes the equipment and installation of one drinking fountain. If Public Works staff is available to install the fountain, two fountains can be replaced with this appropriation.

Haymarket Park Restroom Facilities	\$235,000
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The master plan for Haymarket Park includes construction of restroom facilities. This park is a highly-used, centralized park. Currently, the only township park where permanent restroom facilities are constructed is at Tom Tudek Memorial Park.

2022

Fairbrook Park Master Plan Update	\$25,000
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Fairbrook Park is a 23-acre public facility with playing fields, play areas, picnic facilities, perimeter walking path, hard court and parking facilities. The park offers an opportunity to convert some of the highly maintained turf areas to low maintenance as no-mow or pollinator areas. A revised master plan would evaluate the areas of the park for conversion as well as consider improving amenities.

Drinking Fountain Replacements	\$10,000
At the recommendation of the Centre Region Parks and Recreation Department, the Township began upgrading drinking fountains in parks in 2016. This item includes the equipment and installation of one drinking fountain. If Public Works staff is available to install the fountain, two fountains can be replaced with this appropriation.	
2023	
Tom Tudek Memorial Park Phase IIIA	\$355,000
Completion of Tudek Park Phase 3a includes the construction of two basketball courts, completion of remaining sidewalk connections, paving the remainder of the parking lot, and associated landscaping and stormwater improvements. Phase IIIA is located on land owned by the Tom Tudek Memorial Trust and is adjacent to the park entrance on Herman Drive.	
Drinking Fountain Replacements	\$10,000
At the recommendation of the Centre Region Parks and Recreation Department, the Township began upgrading drinking fountains in parks in 2016. This item includes the equipment and installation of one drinking fountain. If Public Works staff is available to install the fountain, two fountains can be replaced with this appropriation.	