

# **FIRE STUDY**

## **DARBY TOWNSHIP, DELAWARE COUNTY**

DECEMBER 2021

**Governor's Center for  
Local Government Services**  
Floyd A. Wise III  
Fire Peer Consultant



## Table of Contents

<b>Executive Summary .....</b>	<b>1</b>
<b>Executive Analysis .....</b>	<b>2</b>
<b>Municipal Overview and Demographics .....</b>	<b>4</b>
<b>Current Fire Department Resources Overview .....</b>	<b>6</b>
<b>Analysis of Current Insurance Service Office (ISO) Rating.....</b>	<b>13</b>
<b>Darby Township Incident Response Statistics .....</b>	<b>15</b>
<b>Opportunity Statement #1 Recruitment, Retention .....</b>	<b>19</b>
<b>Opportunity Statement #2 Deployment Models NFPA 1720.....</b>	<b>23</b>
<b>Opportunity Statement #3 Township SOG/SOP, Guidelines .....</b>	<b>37</b>
<b>Opportunity Statement #4 Township Training Standards, Planning.....</b>	<b>41</b>
<b>Opportunity Statement #5 Finance, Budget, Revenue Generation .....</b>	<b>44</b>
<b>Opportunity Statement #6 Strategic Planning Committee .....</b>	<b>50</b>
<b>Opportunity Statement #7 Standardized Response Packages .....</b>	<b>52</b>
<b>Study Conclusion .....</b>	<b>54</b>
<b>Appendix A Potential Replacement Measurement for Fire Apparatus .....</b>	<b>55</b>
<b>Appendix B Steps to Establishing Mergers/Consolidation Success .....</b>	<b>59</b>
<b>Appendix C Training Plan Content .....</b>	<b>59</b>
<b>References .....</b>	<b>63</b>

---

## **Executive Summary**

In April of 2021, the Commonwealth of Pennsylvania, Department of Community & Economic Development (DCED), Governor's Center for Local Government Services began a lengthy project to assess the fire services for Darby Township, Delaware County, as requested by the municipality and its elected officials. This report is an analysis of operations, organizational management, equipment, and facilities of the current organizations serving Darby Township with intent to improve services where potential propose efficiencies could be located.

As of the compilation of this document, the fire department, and by extension, the municipality have a symbiotic and vested interest regarding fire and rescue services. To continue to operate three somewhat organizationally separated and distinct services does not reflect the reality or efficiency of the situation. All the recommendations listed are designed to develop continuity in operations and understanding of all staff, inclusively, to provide a predictable response to township emergencies. All recommendations are meant to align Darby Township Fire with best national practices and build a cooperative relationship between the volunteer membership of the agencies with a common objective, professional response, and preparation for community service growth.

### **Purpose**

A municipality should periodically review the fire service it is responsible to deliver under the municipal laws of the Commonwealth. The purpose should be to make sure that fire protection is being delivered in a competent, prompt, professional manner with the needed resources, operational efficiencies, strategic management, and that citizens expectations are met. Return on investments or fiscal responsibility must be considered in all aspects of public administration, and as such this report is sensitive to growth, cost, and budgetary constraints.

This assessment is intended to provide the municipality with an overview of fire protection to ensure that it can evaluate these findings to provide services effectively and efficiently to the residents and businesses today and for future trends. This plan is designed to lay a framework of approximately 5 years, allowing management to plan from that point forward.

### **Methodology Used in the Study**

To understand and evaluate these issues, The Department of Community & Economic Development undertook an assessment of the current operations of the municipality and the Fire Companies. The principal approaches utilized in this study included the following:

- Virtual meetings with the Municipal Officials of Darby Township and volunteer membership of 3 independent non-profit volunteer fire companies.
- Site visits to 3 the Fire Station facilities and interactions with available members (not feasible due to COVID-19 Pandemic restrictions)
- Interaction via email and phone interviews to conduct follow ups with all parties including many layers of the fire department structure and elected officials.

- Data Collection of external and internal data documenting administrative and operational management policies and practices.

## **Executive Analysis**

The municipality and the fire companies have several in depth issues that need to be addressed and were identified in initial virtual meetings:

- Recruitment, retention, and support of the existing volunteer membership. Adoption of methods compensate volunteer community members for time invested.
- Development of efficiencies of finance and examination of revenue generation to support needs of local responders. Communication annually with township elected officials on financial matters and budget management of volunteer departments as a mandate.
- Merge/consolidation pathway to create united new fire department to serve the north side of Darby Township. Universal coordination of service between two remaining agencies through local government support.
- Development and implementation of apparatus replacement plan with strategy to maintain necessary trucks service needs, as well as increase safety of fleet while reducing maintenance costing.
- Adoption of Darby Township minimum development standards in conjunction with an organized training plan to meet nationally adopted, nonregulatory standards. Defined and standardized requirements for exterior firefighters, interior firefighters, ranked fire officers, and driver/operators based on national standards as a township adopted practice. Annual audits collectively of all Darby Township departments on status of training hours and overall annual content.
- Implementation of a steering committee structure of the fire department leadership and Darby Township officials to express concerns and formulate planning for department needs. Cooperative relationship building of all parties involved in the fire service provisions of Darby Township.
- Standardized box assignment response across the township in conjunction with available mutual aid fire departments as well as continual mutual aid training or standardized response practices
- Standardization of administrative and operational policies across all Darby Township Fire organizations and consistency of staff behaviors and preparation.

All three independent agencies are committed to the service they provide to their customers and citizens. The following positive remarks should be noted:

- All three agencies are interdependent, depending upon each other and other neighbors for mutual aid and automatic aid assistance during emergency incidents.
- Each agency values customer service and is proud of its community, working hard to care for it.

- Each agency would benefit from additional regional planning measures. Combining efforts in some manner with the other departments with shared resourcing can enhance many of the identified improvements in this report.
- Cultural differences exist; however, these organizations demonstrate more similarity than differences from a cultural standpoint.
- Communication among agencies is somewhat ineffective, largely because of the resistant collaboration on numerous administrative and operational initiatives, with some personal matters interfering with moving the organizations forward.
- Policymakers should adopt a plan, like the one outlined in this report, to evaluate each of the recommendations contained herein, aligning the processes, services, and operations of the agencies where possible.

All recommendations in this plan are designated as a separate, strategic need with a timeline of completion benchmark as follows:

- **Short Term Strategic Goal (1-3 years)**
- **Medium Term-Strategic Goal (3-5 years)**
- **Long Term-Strategic Goal (5-10 years)**

## **Structure of Fire Department Coverage**

The underlying basis of this analysis is the current composition of fire protection, which is composed of a volunteer fire force provided by 3 separate, and incorporated fire companies. The analysis was inclusive of job descriptions, organizational structures, and resource needs and deployment models of the department made by group discussion at several different layers of the organization. The survey process was conducted in several ways to gather relevant information for decision making.

## **Municipal Overview and Demographics**

The requesting municipality, Darby Township, located in Delaware County, Pennsylvania and is recognized as First Class Township that covers 1.4 incorporated square miles and a population of 9,279 as of July 2019 U.S. Census documents. The calculated population density was stated at 6,500 persons per square mile including 3,926 separate housing units. Darby Township is unique in that its geographic border is split and separated into two land masses. Collingdale, Sharon Hill, and Glenolden, as boroughs, subdivide the township in two, distinctly.

Darby Township structure is representative of a Manager-Council system, being classified as a first-class township within the Commonwealth of Pennsylvania. The council is the Board of Commissioners, which consists of five Commissioners, each representing a different Ward.

## Darby Township Demographics

	<b>Race And Origin</b>
White	54.1%
Black/African American	40.9%
American Indian	0.1%
Asian	0.6%
Hispanic Latino	3.8%

	<b>Income and Poverty</b>
Median Household Income	\$50,102
Percent persons poverty	20.5%
Per Capita Income	\$26,120

	<b>Home Ownership Rates</b>
Owned properties	70.6%
Rented properties	22.5%
Vacant/empty properties	4.7%
	<b>Typing of residential housing</b>
Single unit family housing	70%
Townhouses/Rowhome	4%
Small apartment units	17%

	<b>Housing construction period</b>
1940-1949	6%
1950-1959	11.3%
1960-1969	11.4%
1970-1979	16.3%
1980-1989	14.0%
1990-1999	13.9%
2000 to later	13%

	<b>Education Level Attained</b>
High School Graduate or higher	85.3%
Bachelor's Degree or higher	20.3%

## **Current Fire Department Resources Overview**

Darby Township is currently served by three, distinct volunteer fire departments. All members belong independent to Briarcliff Fire Company #75, Goodwill Fire Company #, or Darby Fire Company #. Each of the separate organizations maintain their own privately owned firehouse, housing several townships owned and maintained apparatus for community response. Each department is composed of a similar structure of both administrative and operational officers as well as firefighters all with incorporation as a 501c-3 agency as defined by the Commonwealth of Pennsylvania and the Federal Internal Revenue Service.

### **Current emergency response services provided include:**

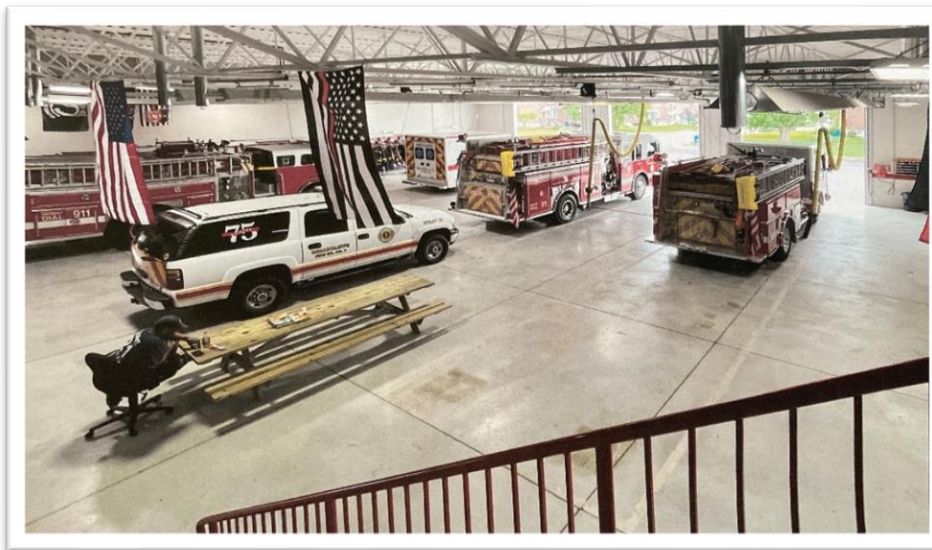
- Fire suppression services
- Vehicle rescue and simple extrication
- Hazardous material operations level response
- General first aid/CPR
- Natural gas and unusual odor responses/air monitoring
- Electrical and utility related emergencies
- Brush and wildland fire control
- Fire safety education and prevention public details



## Current Township Facilities and Apparatus

### Briarcliffe Fire Company, Delaware County Station #75

767 Beech Avenue, Glenolden, Pennsylvania 19036



The original, historical section of the firehouse was constructed in 1957 which consisted of a three-bay apparatus facility with an included kitchen, and 2 restrooms. A new addition was funded in 2016 and completed in 2018. Expansion included appropriate shower facilities, an EMS crew member area and office, as well as administrative office space. It should be noted that this facility stores the township fire apparatus as well as two EMS MICU units which in collaboration with the local EMS system provide additional township services.

**Apparatus housed within facility includes:**

**Engine #75: 2005 Spartan pumping apparatus**

Current mileage: 15,700 miles

Engine hours: 1763 hours



**Pipeline #75: 1996 Spartan pumping apparatus**

Current mileage: 19,103 miles



**Engine #75-1: 1986 Ford/E-one pumping apparatus**

(company owned-not in active service)



**Ambulance 75-7A: 2019 Ford/Medix transport body**



**MICU 75: 2011 Dodge/Lifeline transport body**



**Utility #75: 2006 Chevrolet Suburban prime mover  
(Company owned unit)**



**Goodwill Fire Company No.1 Delaware County Station #77  
719 West Cook Avenue Glenolden, Pennsylvania 19036**



The current in-service firehouse was built in 1994 and consists of a 3-bay metal clad, steel frame building. The facility provides minimal office and staff space. Limited details provided.

**Apparatus housed within facility includes:**

**Quint #77: 1997 KME equipped aerial and pumping apparatus**

Current mileage: 19,731 miles

Engine hours: 3,283 hours



**Pipeline #77: 1998 Ferrara pumping apparatus**

Current mileage: 9,465 miles

Engine hours: 2,627 hours



**Brush #77: 1988 Ford mini pumper (currently listed as out of service)**

Current mileage: not presented

Engine hours: not presented

**Darby Fire Company #4 Delaware County Station #76**  
1351 Hook Road Sharon Hill, Pennsylvania 19079



The building is a three-bay station that was constructed in 1968. This currently houses three Engines. The facility has a small kitchen, office, one bathroom, utility closet, and a loft that is used for storage. We also have a separate building, on the same property that has a rental hall upstairs and a social club downstairs. Both buildings are dated and require continuous maintenance.

**Engine #76: 2003 Spartan pumping apparatus**

Current mileage: 148,400 miles

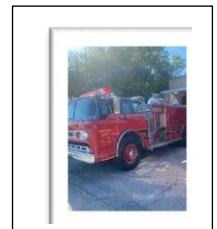
Engine hours: 17,255 hours



**Engine #76-1: 1986 Ford pumping apparatus**

Current mileage: 22,350 miles

Engine hours: not presented



**Engine #76-2: 1997 Kovatch pumping apparatus**

Current mileage: 9,260 miles

Engine hours: 2,422 hours



**Utility #76: 2007 Ford F-150 Prime mover**

Current mileage: 96,157 miles

Privately owned by Darby Township Fire #4



## **Analysis of Current Insurance Service Office (ISO) Rating**

The latest provided ISO review dated December 23rd, 2020. Darby Township received a public protection classification of 4/4X, rating amongst 6,500 other departments nationwide. The ISO rating system is a method of examining a geographical areas water supply system, emergency dispatch and communication systems, and finally the fire department structure. Benefits of an improved ISO rating generally affect fire loss values, improved costs for premiums for insurance protection, homeownership, and business alike. ISO is a third party, private agency which assesses all communities across the nation on a 5-year rotation. Attached below were the maximum point values and received points noted within the last evaluation.

Keep in mind that ISO is only a measuring tool for community protection and often does not represent the true capability of the actual department to respond and care for community needs. This is simply a tool to monitor, and measure needs within the service. However, this is one nationalized method to measure responses across the national spectrum and often utilized in administrative reports such as this document. ISO ratings are given between 1 (highest standard) and 10 (lowest to resource standards). ISO evaluates all municipalities within the United States on a 5-year rotation according to standardized criteria including consensus of the National Fire Protection Association standards as well as The American Water Works Association for fire flow analysis. Analysis includes emergency communication systems, fire department resourcing, fire department training, water supply capacity of the community, and generation of needed fire flows.

Review of the ISO analysis reveals four areas where development may be needed to gain additional points within the system and potentially improve the community rating:

- Credit for Fire Department Personnel
- Credit for Deployment Analysis
- Credit for Fire Department Training Hours
- Credit for Public Safety Education Programs

In examination of the report some loss was noted in Emergency Reporting and dispatching a loss of points for the township both in computer aided dispatch management and interoperability, as well as Geographic Information Systems (GIS) availability. Both issues may lie outside authority of Darby Township, as a Delaware County issue affecting all ISO evaluations, but should be investigated regionally to see where the deficit currently is and what can be corrected.

The most notable fire department related loss of ISO points was found in credit for on duty personnel and in documented fire department training data. These points will be considered as developmental challenges later in the report. Response strength considerations in these reports specifically, are calculated as the yearly number of qualified interior firefighters and company officers on duty or responding to emergencies. Any reduction of personnel, perhaps during coverage of volunteer responses, would lower the average personnel responding and effect the final analysis. The development of a minimum response agreement combined with robust mutual aid support will be an extremely beneficial movement towards lowering the Township ISO rating

and correcting this issue. Fire services must be viewed as a regional, shared issue and not inhibited by geographic boundaries or friendly agreements.

The next layer of the ISO reports where gaps were examined included a lack of a township training for staff, shortages in company level development, and deficiencies in fire officer level training. Training quality as well as quantity will be broken out as a separate section of the report due to the critical nature of staff training investments. This discussion will be inclusive of annual, adopted training plans that meet NFPA standards as well as ISO generalities.

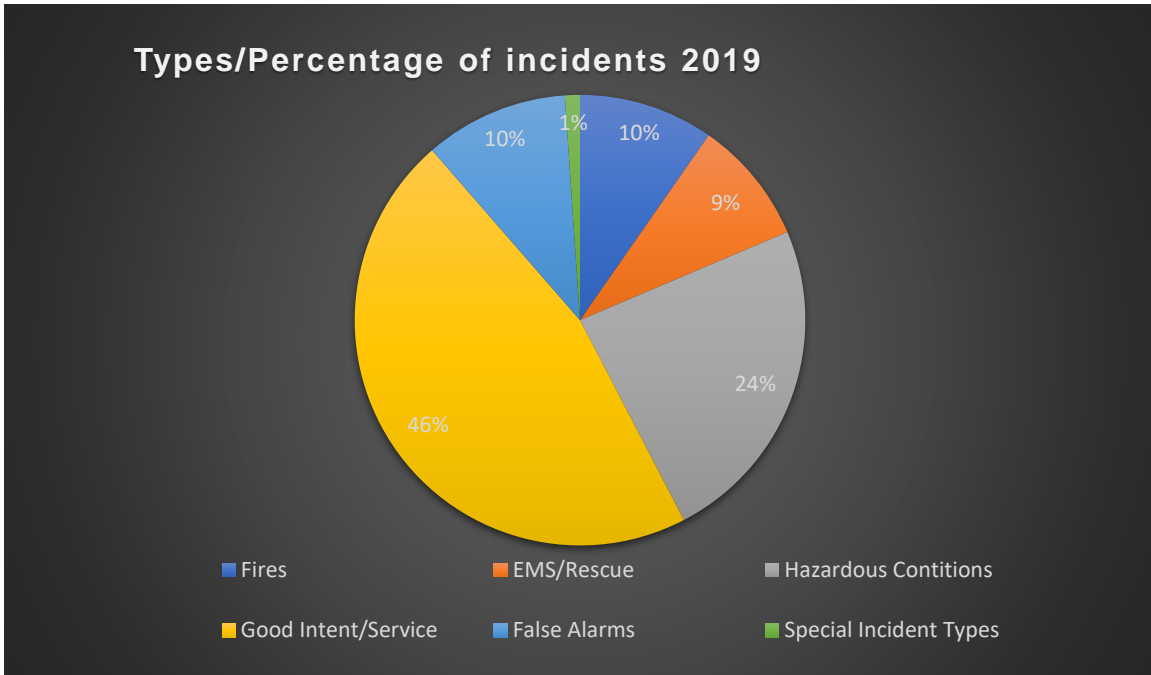
The final portion of the report with a lesser number of available points included public safety education and is paramount to working to reduce community and citizen risk. The development of a prevention and education outreach programs, with appropriate training and staff will move to improve this grading category and, in many communities, is just as vital as fire suppression response capacity.

With implementation of portions of this plan, development of policy and procedure within these noted areas, the Darby Fire Department could easily attain a 3/3x as a benefit to the municipality in the next 5-year analysis and should generate a change in overall fire insurance rates.

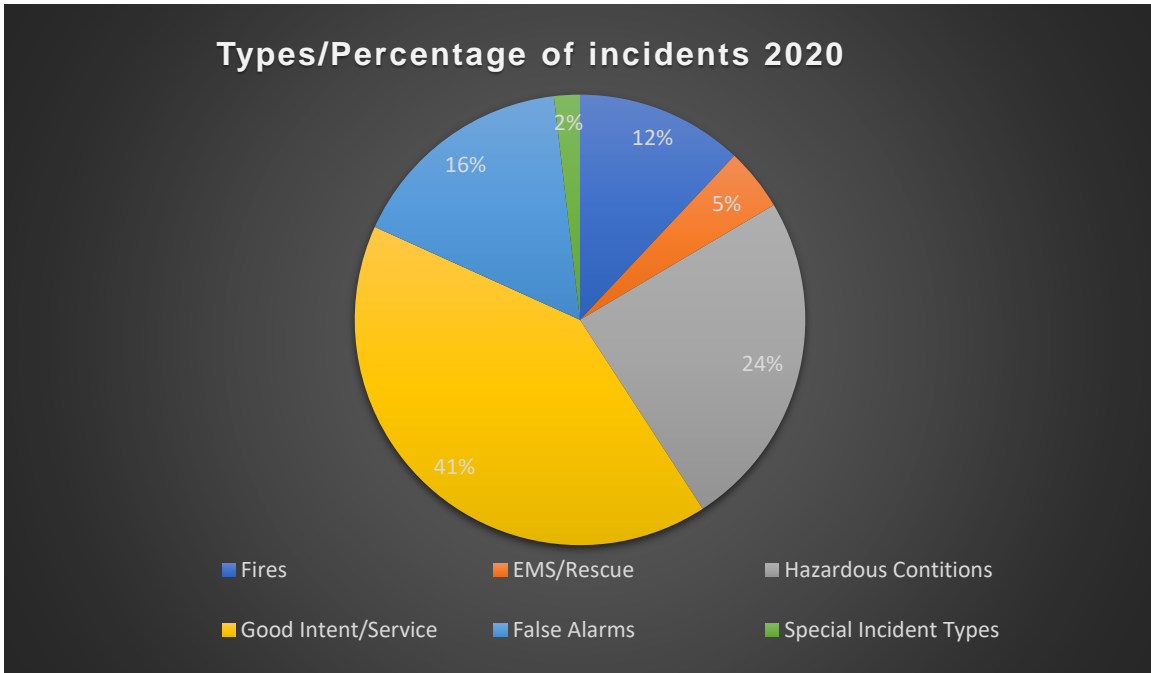
	Credit Available	Actual Credit Awarded
Telephone Service	1.95	3
Operators	3.92	4
Dispatch Circuits	3	3
<b>Total Communications</b>	<b>8.87</b>	<b>10</b>
Engine Companies	4.80	6
Reserve Pumpers	.50	.50
Pump Capacity	3	3
Ladder/Service Company	3.63	4
Reserved Ladder	0	0.50
Distribution Analysis	8.25	10
Company Personnel	3.66	15
Training	2.67	9
Operational Considerations	2	2
<b>Total Fire Department</b>	<b>28.51</b>	<b>50</b>
Water System	27.56	30
Hydrants Available	3	3
Hydrant Testing	5.60	7
<b>Total Water Supply</b>	<b>36.16</b>	<b>40</b>
Community Risk Reduction	0	5.50
<b>Total Score</b>	<b>66.86</b>	<b>105.50</b>



**Darby Township Incident Response Statistics**  
**(National Fire Incident Reporting System)**

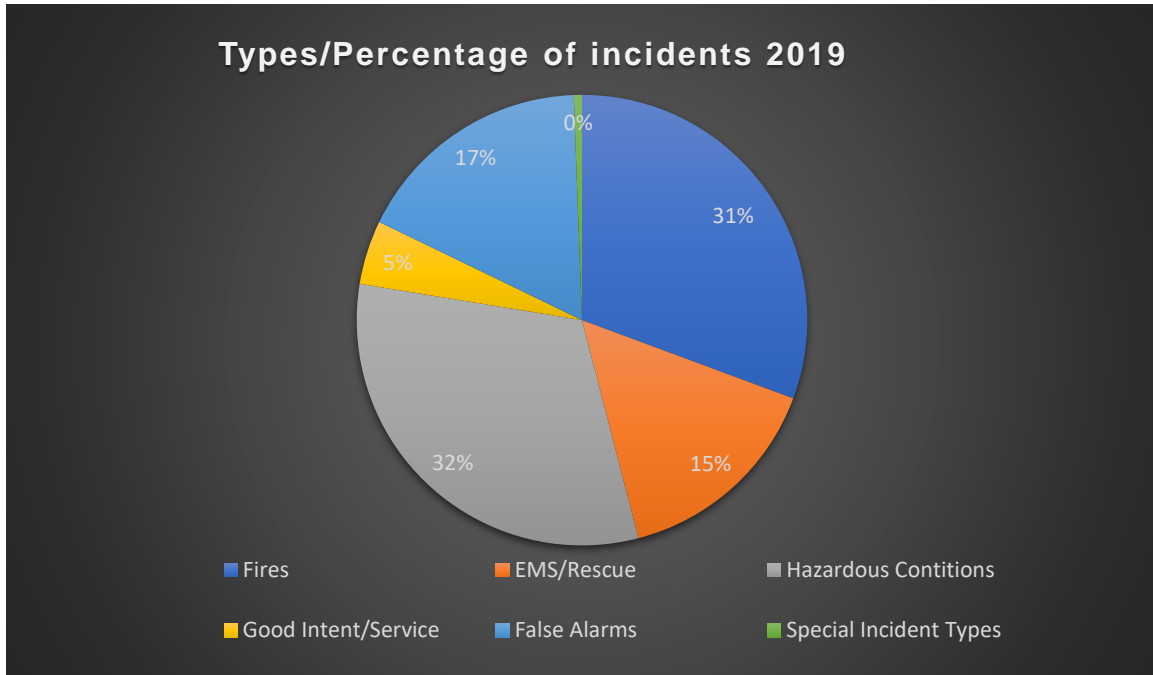


**Data taken from 1/1/2019 to 12/31/2019 National Fire Incident Reporting System  
Goodwill Fire #77 (total incidents 93)**

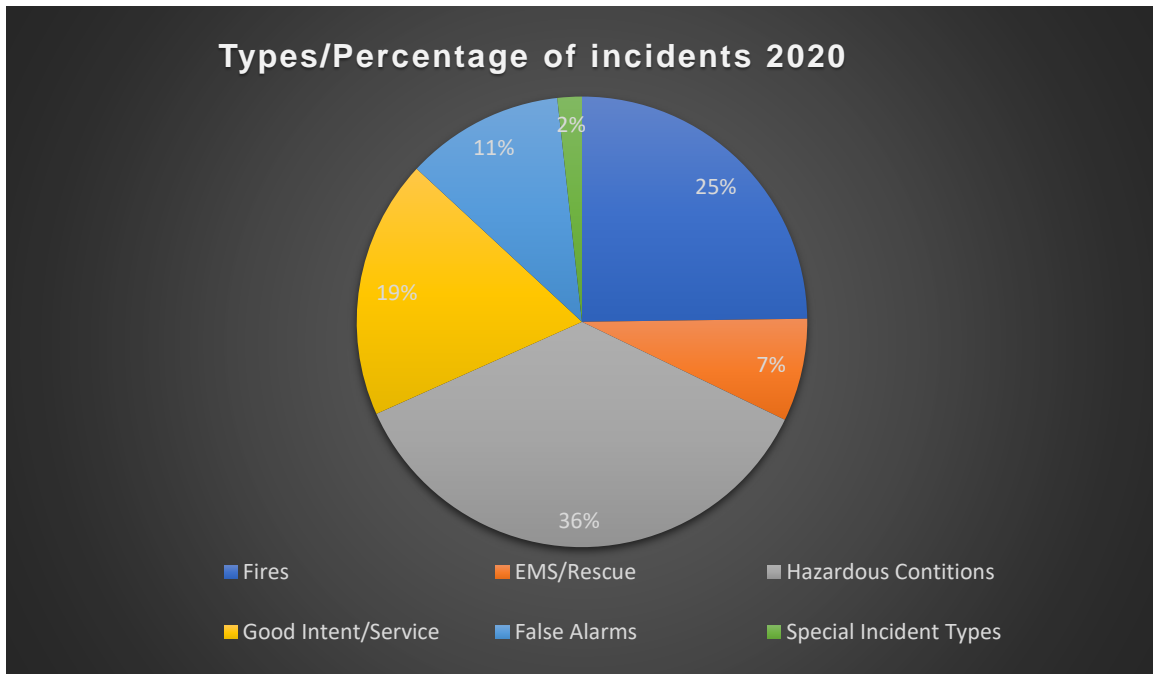


**Data taken from 1/1/2020 to 12/31/2020 National Fire Incident Reporting System**

**Goodwill Fire #77 (total incidents 112)**

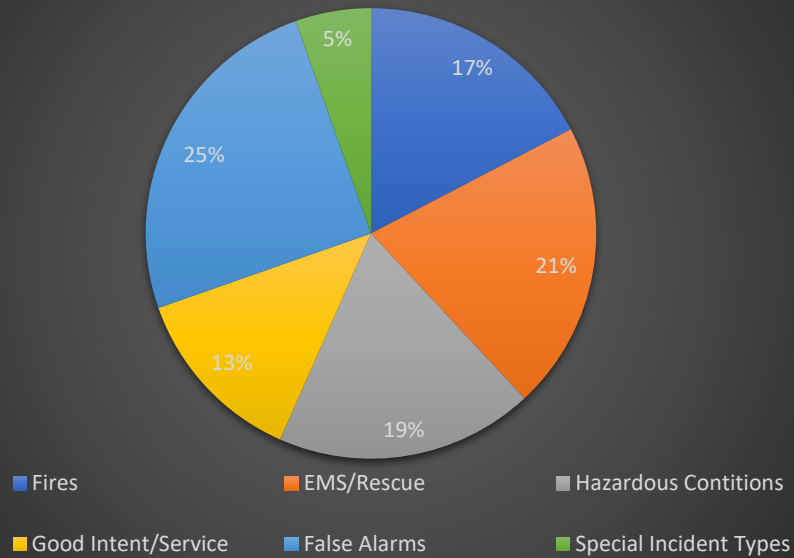


**Data taken from 1/1/2019 to 12/31/2019 National Fire Incident Reporting System  
Briarcliffe Fire #75 (total incidents 165)**



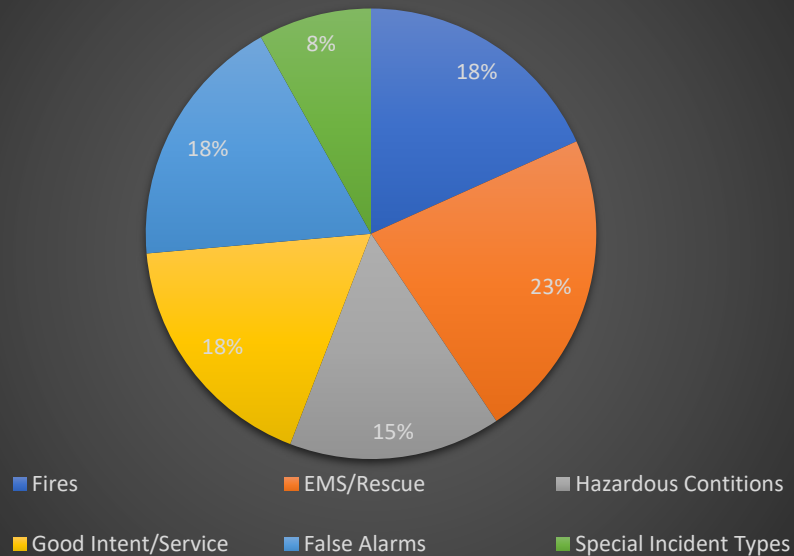
**Data taken from 1/1/2020 to 12/31/2020 National Fire Incident Reporting System  
Briarcliffe Fire #75 (total incidents 196)**

### Types/Percentage of incidents 2019

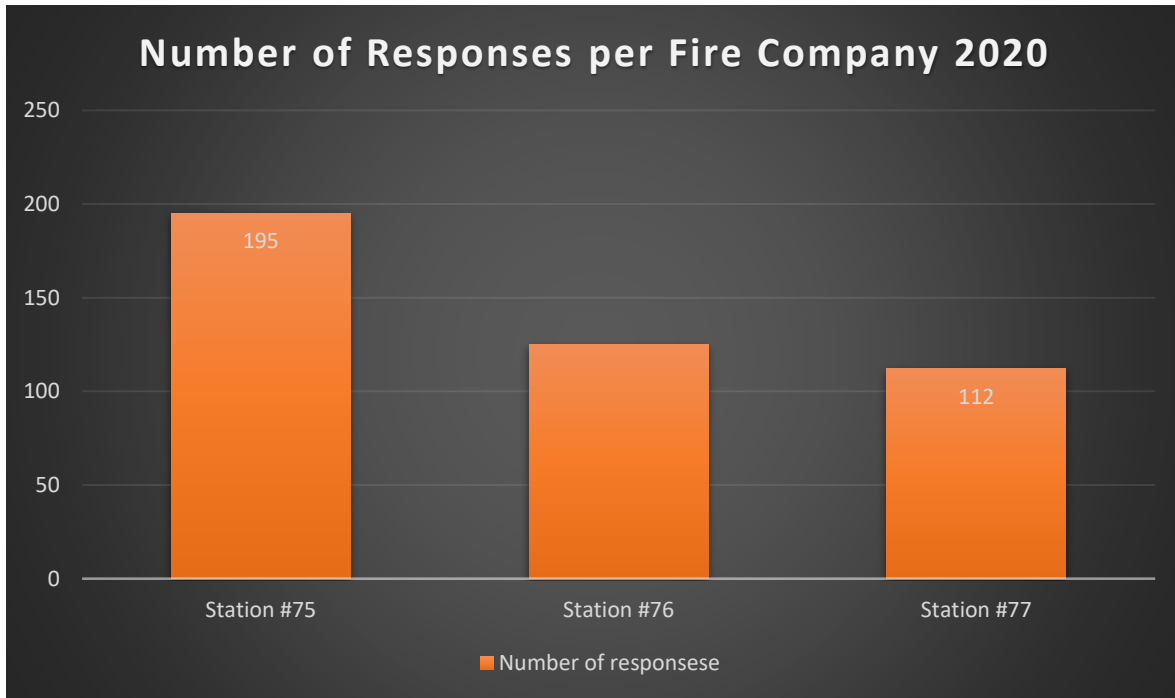


Data taken from 1/1/2019 to 12/31/2019 National Fire Incident Reporting System  
Darby Fire #76 (total incidents 120)

### Types/Percentage of incidents 2020



Data taken from 1/1/2020 to 12/31/2020 National Fire Incident Reporting System  
Darby Fire #76 (total incidents 125)



**Population of 6.5 groups of 1000 persons/195 incidents = 30 incidents per 1000-person population**

Incident data statistics for Darby Township, are not unusual as a national trend of high indexes of automatic fire alarms and emergency medical responses making up 48% of annual responses on average. Response list reviewed revealed approximately 14% of all incidents being related to fire suppression. Rescue responses also made up a small percentage of total incidents. It must be noted that this report only examined a 1 to 2-year period of call responses. Analytical decisions and policy should be made after examination of at least a 5-year period to see any relevant data set change.

This data should be examined strategically in command staff meetings to ensure that the fire department is trained and prepared for changing community needs. Data gathered should align with similar response types in mutual aid departments with similar populations. Data collected should be referenced back to the risk and hazard assessment in the standard of cover process both for Darby Township Fire Departments and for the region as an entirety.

Change in call response for the future service offerings will be considered later in the report, particularly integration of emergency medical response and quick response services within Darby Township. By expectation, this should trigger a large increase in total call volume, and a spike in EMS response percentages. Additionally, this would cause a related increase in cost for this service, and a need for advancement in EMS training for staff members if this is the pathway moving forward.

Peak service time was not analyzed as fire agencies could not provide detailed incident time data. Peak service times seek to observe when staff are most beneficial to response in times of higher call volumes and are typical measurement within administrative reports.

**Opportunity Statement #1**

**Recruitment, retention, and support of the existing volunteer membership. Adoption of methods to compensate volunteer community members for time invested and make participation more attractive.**

**Volunteer Recruitment and Retention Issues**

Volunteer membership with fire departments has a long-standing history of success, for hundreds of years, especially within the Pennsylvania Fire Service. Community assistance should always be respected and honored for its intent to make your own region more safe and secure for your direct neighbors. However, the ability to maintain volunteerism in many communities has been threatened by changes in economics and lifestyle and thus making it more difficult to find persons with the available time for the fire department (Volunteer Retention 2005). The National Volunteer Fire Council estimates in a 2019 study that a volunteer’s time has an estimated value of \$25 per hour and contributes approximately \$10,000 worth of productivity for their time to the fire department within a year. A replacement of all volunteers nationwide could cost the American taxpayer up to \$27 billion if not addressed appropriately (Cost Calculator, 2014).

An additional internal pressure that threatens volunteer numbers within the State of Pennsylvania are the number of training hours required to meet standard as a qualified interior firefighter. Training being mandatory, with no reduction in the future, requires a 200-hour plus upfront investment.

It must be reinforced that loss of dependability of the volunteer system such as failure of response, low turnout and response staff numbers, untrained staff response, or excessive response times from the firehouse to a scene will inevitably require replacement by a known supplemented or career staff. This reinforces the need for multiple municipalities to examine and discuss the need for a shared staff model and shared resourcing into the future to save or share service costs.

Our service advertisement should include excitement, friendship, respect, and an honorable method to serve our neighbors as the positives methods to draw quality people into our industry. Marketing must be planned to include creative locations to find new members such as fitness location, churches, community events, and educational facilities such as colleges. A successful recruiting program must create a community awareness of the fire departments and its needs. To accomplish this, the department should utilize social media campaigns, and publish over websites to draw interest. Television media campaigns can also be utilized to advertise the need for public support and reach a broader audience.

In a document created by United States Fire Administration in 2007 indicate that a large loss of volunteer membership occurs because of internal friction, lack of leadership, and low commonality. This inevitably leads to an environment the volunteer member views as not enjoyable, and certainly not a great return on time invested. A department must eliminate this friction and build a “team oriented” workplace for the volunteer to feel appreciated (Retention and Recruitment, 2007). Lack of retention has also been strongly tied to lack of leadership, and poor

morale within departments nationwide. Internal politics and stress from fund raising have been identified as areas of loss for personnel.

Retention is identified as maintaining a trained person within an organization with a certain level of satisfaction while assisting the organization. From the retention standpoint, it is critical to have incentives offered by the organization for reflected value of time for the member.

A length of service award programs (LOSAP) must mandatorily be drafted, so that the volunteer willing to commit to township care for a significant time would, in essence, be vested in a long-term pension process and receive a long-term financial reward. These programs offer a defined benefit to the responder based on a pension calculation over a set of number of active years, providing a long-term financial reward to the individual. Many private pension agencies are available and easily shopped to provide the pathway to create and finance a LOSAP program through local municipality funding and support.

In addition, obstacles may exist for persons of different cultures or age groups, and with that a strong orientation period is recommended to identify if the new member has a question or concern. Remember, the goal is to attract them to the emergency service, however the real challenge is to keep them involved and engaged with the organization. It is also recommended that the recruit be tied to a strongly designed mentoring process, so they have at minimum one personal contact that has the best intention of guiding them in the learning process of the fire service. No individual should join a fire department and then be left to discover the group in the blind.

Options to add value to the time committed by a volunteer member. These programs should be investigated and include (Recruitment and Retention, 2007):

- Tax incentives from property taxes or earned income taxes locally. See the legislation for The Volunteer Firefighter Tax Credit Act passed in 2016.
- College educational assistance program especially if emergency service oriented.
- Retirement and Length of Service Remuneration plans (LOSAP)
- Additional funding to fire conference and educational opportunities
- Fitness plans or memberships to local amusement locations for staff (Pools and parks)
- Annual compliant health physicals and wellness maintenance programs for membership
- Involvement of all family members in frequent social events and membership within the fire department
- Use of take-home vehicles for members if beneficial to the department
- Group rate changes on home and auto insurance for a volunteer member
- Access to low interest loans or credit union membership
- Residency programs for students in vocational or college educations and related housing cost savings.
- Creation of funded scholarships based on a “time of service” agreement to assist volunteer firefighters working in higher education.

SAFER (Staffing for Adequate Emergency Response) grant funds may be utilized as a method to fund volunteer retention concepts and advertising campaigns. This competitive process, completed by a grant writer, may allow the township to move forward with NFPA 1710/1720 compliancy while offsetting budget stresses, or at minimum allowing for a planning period. FEMA offers a vast amount of guidance on its website for the application process and timelines. <https://www.fema.gov/grants/preparedness/firefighters/safer#>

Volunteer incentives reward programs (VIRP) may also include such methods of quarterly reward programs based on a point analysis for fire department activities including training and can be rewarded to the member by small stipends or gift card purchasing. Likewise, pay for call and pay for duty programs can be crafted to provide small compensation to the member for actively being in a firehouse for a specific time period, usually utilized during times of peak service responses. Obviously, this incurs a budget expense which may need to be supported by direct municipal funding. These options are generally used to fend off the need for full time and part time employee costs which can be inevitable if volunteerism falls below acceptable risk tolerances to the community.

### **Volunteer Service Recruitment and Diversity Approaches**

Perspectives regarding the impact of diversity in the fire service vary from causing adversity and effectiveness in the organization to providing a position of strength and success through collective intelligence. No matter what your perspective may be on diversity, it is an issue that can evoke emotions” (McNeill, 2008). All public agencies today have an image of fair inclusion, some elements of fire service organization, nationally have been lethargic to truly examine diversity initiatives and make appropriate steps to accomplish change.

Some have compared and criticized diversity initiatives to impacts of lower standards. In fact, diversity is targeted at making a fire service organization stronger and matching it to the community it serves. Why should any community member not have an opportunity to apply and test for emergency services in the region they reside, or perhaps where their very family lives? Collective cultural or religious intelligence can allow an organization to move towards department goals, considering perspectives based on our differences and a closer community focus.

Targeted recruitment of groups not typically reached by traditional fire service hiring practices must be examined and implemented. This is equivalent volunteer with the question is where and how do we introduce our agencies to qualified applicants who have an obstacle such as a language barrier, or perhaps access to electronic media. Diversity initiatives should examine solutions for gathering employees and volunteer membership based on age, ethnicity, gender, and physical challenges.

Recruitment and retention diversity are usually not just a fire department struggle, but usually all offices within a municipality may have similar concerns. An objective task force could be formed of representatives who can consider a strategic plan to open all hiring to diverse groups.

A committee, with collected feedback can be polished for individual departments, however broadly the Darby Township in collaboration with human resource directors should examine all tools for diversity education both internally and externally of the fire service.

This is a continual maintenance need if the department functions entirely as a volunteer agency. For purpose of this report, it is considered a long, medium, and short-term strategic planning issue to continually monitor how to attractively draw membership from a wider pool.

Potential strategies to enhance diversity in recruitment may include the following:

- Application and announcement in multi-lingual websites, media, and across cultural social media sites for job announcements, job needs, and potential rewards of service as well as location to apply.
- Consider advertisement or visibility options at faith-based locations across the region to announce department career availability and processes.
- Attend as many local job and career fairs as appropriate for recruitment of candidates with job posting materials available.
- Local colleges may also be an option for advertising of career or volunteer opportunities. Consider “live in” programs to attract an eligible volunteer.
- Local gymnasiums and fitness centers may also be an attractive location to post job openings and contact information for physically active persons of many backgrounds looking for a challenge or to assist the community.

The Fireman’s Association of the State of Pennsylvania, SAFER Grant to assist in enhancing recruitment for Pennsylvania fire and emergency medical service community has renewed, as part of its program, is a local grant opportunity. The Fireman’s Association of the State of Pennsylvania (FASP) is offering a recruitment and retention grant. Further information about this process as well as recruitment and retention assistance can be referenced at [FASP Recruitment & Retention \(becomeapafirefighter.com\)](http://becomeapafirefighter.com).



**Opportunity Statement #2**

**Development of township wide fire service unity of command and development of a two-department volunteer deployment model for Darby Township. Development of cooperative relations and standardization of services with combined resource sharing. The Township should establish Fire response and staffing benchmark performance objectives as per NFPA 1720 for the suburban area.**

Given the population within the municipality and the potential limitations of the tax base to support fire service it is critical and obvious that elected officials must look for all opportunities for efficiency and elimination of unnecessary expense in such service. As noted earlier, Darby Township is somewhat unusual as a split municipality and thus very little can be crafted in terms of elimination of fire service facilities in the southern region. However, the other facilities that are located north are no less than 4/10ths of mile straight-line distance, or 7/10ths of a mile driving distance must be scrutinized in detail in terms of redundancy and cost/benefits analysis. It must also be emphasized the community at large is facing roughly 190 emergency incidents per year in total and the question lies in “What expense and resources are minimally required to support service needs?”

In February of 2008 Pennsylvania amended the Act of February 1, 1966 (1965 P.L. 1656, No. 581) by enacting HB No. 1133 with the clause “A borough shall be responsible for ensuring the fire and emergency medical services are provided within the borough by the means and to the extent determined by the borough, including the appropriate financial and administrative assistance for these services. The borough shall consult the fire and emergency medical service providers to discuss the emergency service needs of the borough. The borough shall require any emergency services organization receiving borough funds to provide the borough with an annual itemized listing of all expenditures of these funds before the borough may consider budgeting additional funding to the organization.” Similar amendments with similar language have been enacted for first- and second-class townships as well. It is the responsibility and authoritative power for local government to determine the need and extent of fire service provision within the Commonwealth of Pennsylvania.

The uniting of fire department services is a means by which an increasing number of municipalities in the Commonwealth of Pennsylvania are responding to the issues noted above. This combination of services can range from simple agreements for mutual and automatic aid to shared standards and purchasing, or a complete organizational merger. While it can be completed in many forms, there are 5 categories which cover most combination alternatives which shall be presented within this report as well as advantages and disadvantages for the township to consider moving forward:

**Administrative:** 2 or more fire departments maintain separate operations but share some administrative functions. An example would be common purchasing and standardization of equipment and policy/procedures, or shared maintenance contracts to control costs.

**Partial:** Individual departments maintain legal separation, but work as a group for defined service areas, such as rescue response and other mutual aid. This may include joint purchase of shared equipment and apparatus.

**Functional:** Departments maintain legal separation, but perform certain functions as one department, such as training and maintenance.

**Operational:** Individual departments maintain legal separation, but join for all administrative and operational functions, delivering services as one standardized department, however, different corporate names.

**Full:** Two (2) or more departments merge completely into a single legal entity. All service demands across multiple municipalities are met by one defined and united organization.

**Service level issues to be considered during consolidation include:**

- Amount of time it takes fire units and firefighters to respond to emergencies.
- Number of firefighters who respond to a call currently
- How costs will be shared among combined agencies
- Equipment and apparatus placement at fire stations
- Minimum training levels and number qualified in each separate agency
- Standardized health, fitness, and safety requirements

**Consolidation or merger of two fire departments should reap the following advantages to Darby Township government and public:**

- One fire department now consisting of two separate agencies
- One set of standardized, township wide rules, regulations, and standard operating guidelines
- One shared staff training management system
- One clearly defined chain of command between two agencies
- Management of two separate fire department budgets with assistance of elected officials, and added transparency

**National experiences tracked by the International Association of Fire Chiefs (IAFC) show major improvements in service and efficiency following consolidations, including:**

- Improved fireground communications
- Improved standard fireground operations
- Reduced response times with apparatus improvement
- Improved firefighter safety
- Cost transparency to the municipalities and elected officials
- Reduction in administrative efforts for volunteer firefighters by shared resourcing
- Township wide consistent response packages for emergencies

Fire Department	Interior Firefighters	Exterior Firefighters
Briarcliff Fire #75	10	6
Goodwill Fire #77	10	11
Darby Fire #76	15	8
Total staff	35	25

**Total Number of qualified interior and exterior firefighters currently rostered within Darby Township Fire Departments Collectively**

**Merger/consolidation Methodology:**

If the elected officials, in cooperation with the fire department agencies agree that merging is in the best interest for the community there would be in essence two options to complete this strategy. The commitment to a merger process can be a long and tedious process, requiring a financial investment as well as clarification of many layers of documentation to many state and federal agencies with the purpose of crafting a new charter of incorporation.

Initial virtual meetings with both departments in the norther district, it was indicated that a merger/consolidation would be almost impossible due to the frictional nature of the two organizations which has developed over the last 5 years. If professional relationships cannot be fortified, considering public need, then a mediation process may be required with assistance of Commonwealth of Pennsylvania, Department of Community and Economic Development or formation of an outside, unbiased committee to assist in formation of a new agency. Regardless of personal positions, all must remain vigilant to improved fire service systems at the end of the merger/consolidation process. Before the merger/consolidation process can begin, it is imperative that a meaningful, shared, cooperative relationship is nurtured or surely the process will fail, and prove to be a waste of human capital and finances.

It is not uncommon for municipalities considering mergers and shared resources to begin with partial/functional agreements amongst fire service organizations. This lends to get two agencies to begin to cooperate and share some resources, while the legal background preparation can be initiated for the later full merger. This acts to test the temperament of the group and can begin to form positive relationships, while working together to save cost in both organizations. An example would be a consolidated training division amongst two volunteer agencies, working collectively to manage the annual training plans for the combined numbers of both departments. Often this can reveal a success and begin momentum towards the full merger and that it is feasible.

A potential final objective, given parties will not amicably move forward with a consolidation model may require decertification by the township of any agency which baulks or refuses to discuss the inefficiencies. This can be avoided by open, transparent dialogue centered on the rewards that can be embraced by the private agency and public as well. It was noted in conversation that a party felt that some memberships may be denied from the newly formed organization. Any

person in good standing with a clear criminal background check (no prior arson/fire setting charges as well) cannot legally be denied access to membership to a charitable organization such a local fire department. This again reinforced the need for FBI and PSP background checks so that we have people of high integrity within our emergency service functions and is a requirement of the State Fire Academy. Agency by-laws should reflect open methods of how new membership is achieved.

An option may be to allow the model to remain as is, which appears to be the simplest, least time involving solution, however this is tremendously inefficient in its entirety to the public, the township, and each involved fire agency. Opportunities for growth and success are unlimited by integration of a merger/consolidation. Within the non-consolidated model are tremendous hidden and duplicate costs which can be removed with savings to the township and departments. Those salvaged funds can be redirected back to logistical needs indicated within this report

### **Option #1: Dissolution of one agency, while the second remains unchanged and in service**

This method would require that the fire department which will no longer be recognized within the jurisdiction, file for terms of dissolution which is managed and legally heard by the Commonwealth Department of State, Bureau of Corporations. This agency would no longer be recognized as an emergency response agency which would also require that any Fireman's Relief funds are no longer dispersed, and those owned items would be returned to another agency within fireman's relief.

The remaining fire department, existing as a 501c3 agency would continue in name with no change to legal status to the state or relationship to the municipality. This organization could induct any member from the dissolved organization, as long as existing bylaws for membership are honored.

This process would require reduced time and cost investment as only one agency is being decertified, while the second agency remains unchanged in corporate structure, mission, or bylaw.

This specific method will require attention to dispose of physical assets of the fire company properly and legally. Further, notification of many local, state, and federal agencies will be required. A plan for any debt service removal must be derived to clear any outstanding loans, leases, or payments. Appendix B located later in this report provides a brief step by step road map that may be utilized in the corporate merger process and some of the involved agencies both state and federal.

### **Option #2: Merging 501c3 fire department agencies file for dissolution and form new corporate agency in the Commonwealth of Pennsylvania**

In this instance, both existing, incorporated agencies would file articles of dissolution with the Department of State, Commonwealth of Pennsylvania as well as changes with the Federal Internal Revenue Service. This action will require a significant amount of legal preparation with the dissolution of two agencies, and the creation of a new agency with an independent document of by-laws, article of incorporation, election of board members, new formalized name, and collection of physically owned property.

The Pennsylvania Attorney General Office is an active participant in these instances of non-profit fire department merger and consolidations and have an extensive document available as well as support tools on for charitable trusts and organizations at the Commonwealth of Pennsylvania, Attorney General Website at [www.Attorneygeneral.gov](http://www.Attorneygeneral.gov).

This process would require all documentation take place, prior to a deadline date when the new titled agency would be placed in service and recognized.

This process may feasibly take from 1 to 3 years to complete in its entirety. Appendix B located later in this report provides a brief step by step road map that may be utilized in the corporate merger process and some of the involved agencies both state and federal.

Whichever option is selected by the volunteer agencies and elected officials cooperatively, local ordinance or resolution should then be enacted which officially authorizes the two remaining agencies, utilizing the legal entity names, as the fire response organizations for the township, and no other as the lead authorities.

### **Minimum Apparatus Requirements and Capital Replacement Planning**

By instituting a vehicle replacement plan in terms of policy, the major objective for a purchased fire vehicle to be in front line use no more than 10 years, and if condition allows and unit grading is adequate to remain in the reserve fleet for an additional five to ten years. A unit, then decommissioned from use at a 20-year age span, and still maintained, should have some significant resale value and interest in the used apparatus market. The revenue recouped from sale can then be cycled back into a sinking fund or investment for the next round of capital purchase.

Common sense would dictate that as a unit ages, and with wear will experience more out of service time. This balance of out of service time and annual investment in repairs must be considered to a break over point to the cost of replacement which can be shared over several budget years, initially. Cost of repair investment can be calculated per mile gained in a year to give a data value for what is being spent out of a budget to keep the unit on the road and comparatively justify a replacement when that value becomes excessive. Given the average age of apparatus serving front line for the Darby Fire Department, it is critical that monies are earmarked over an aggressive 10-year period by elected official to support replacement units and move acceptable frontlines to reserve transfers. This is warranted only for the units legally owned by Darby Township and does not include peripheral units that are privately purchased by private organizations.

Strong evaluations should be made on the number of apparatus maintained in total by the volunteer departments with emphasis on downsizing (sale) and reduction of maintenance costs for units which are seldom responding in service to the community. The department should maintain at a minimum of three engines and one squad/engine for front-line response.

A best practice recommendation is that apparatus be replaced as follows (time constraints can be adjusted if specific high call apparatus accrue mileage and repairs more quickly than expected). Call volume and use weighs heavily on the replacement need of apparatus:

Engine/Squad: 10-year front line service, 8-year reserve (assuming acceptable annual repairs and limited downtime)

Truck: 10-year front line service, 10-year reserve (assuming acceptable annual repairs and limited downtime)

Traditionally, most fire apparatus is purchased based on low interest government loans or through group purchasing outlets such as the Commonwealth of Pennsylvania Cooperative Purchasing Program (COSTAR). Agencies today that seek an aggressive turnover of apparatus due to call volume and working engine hours should strongly consider lease agreements or lease to own agreements. This lease consideration is incredibly helpful with small vehicle purchases (utilities and department cars) as they receive higher mileages and may only have a 5 to 7-year service life to resale with some expected value still left. In addition, many manufacturer's offer cost reductions when leasing multiple units, an overall savings of budget money over a three-to-five-year period.

Fire department apparatus depreciation should become part of the calculation on the replacement cycle. A common depreciation value can be calculated as follows: When calculating depreciation, begin with the original selling price of the vehicle when new. The average fire apparatus depreciates approximately 15% within the first year, 10% the following year, 10% the third year, 7% the fourth year, and 5% the fifth year. The depreciation rate decreases every year thereafter. Typically, fire trucks lose half of their value within the first five to seven years.

Rehabilitation of units which are seldom frontline or see lower response needs should be considered when that apparatus still meets safe standards. These units for rehab already are past resale value of year of service, and generally see little input maintenance investment. These units will be outlined within the sample replacement plan of the report. NFPA 1911 Annex D Standard for Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles should be no longer than a 25-year time span. Any unit over that age should be considered non-compliant to safety regardless of mileage. NFPA 1901 Standard on Automotive Fire Apparatus as in the last revamp states no fire apparatus should be frontline with 15 years of service, or as a reserve with 20 to 25 years of service.

The acceptance of an apparatus replacement plan and budgeting for purchase of immediate vehicle needs are cited as a **short-term strategic goal (1 year)** for purpose of this plan, again when examining a fleet that is generally out of date, and in need of investment at this time.

The merged/consolidated agency, and township department should include a supported, township owned footprint of 3 engines, 1 rescue/engine, and 2 utility/prime mover vehicles. In addition, the township should support at least one duty officer vehicle (Officer in charge) to support command functions of emergency operations of the call volume described for Darby Township. The replacement plan presented covers the next ten years and focuses on resale of outdated, unnecessary units, and planning of new/used units which are compliant to NFPA 1911 Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles.

The age of several units within the Darby Township fleet are obsolete or will be within the next three years. Given the financial challenges of replacing fire apparatus swiftly some creative

financing must be considered and a concentration on what is realistically needed to supply dependable service. Pennsylvania Fireman’s Relief Funds may be directed towards support and purchase of apparatus and can include lease owned purchases under state legislation as an allowable method. Disposal and sale of physical property (titled apparatus) of a dissolute agency may require consultation with legal counsel, and consideration of redirection of monetary value, legally back to Darby Township or in support of the merged agency. The following general transactions should be considered:

**Apparatus Improvement Plan**

Year of Action	Unit sold/replaced	Purpose	Potential costing
2021	-Sale and removal of the 1986 Ford Fire Truck from Darby #76	-Funds to be redirected back to purchasing of equipment	-Minimal to near zero return expectation due to age
2022-2023	-Specification of Engine/rescue unit for Darby #76  -Sale of 2003 Spartan Fire Truck from Darby #76 with arrival of new unit  -Sale of 1997 KME aerial device  -Lease/purchase of new township OIC vehicle as shared unit for any township duty officer	-Replacement of highest mileage unit in fleet    -Unit is high maintenance, aged, and unnecessary for township use	-Potential costing of \$570,000-700,000  -return of estimated \$30,000  -\$80,000 estimated return to budget upon sale -Annual savings of maintenance and insurance  -\$50,000 investment unless leasing is considered
2023-2024	- Specification of Engine chassis frontline for Briarcliff Fire #75  -Sale of Briarcliff Pipeline #75 as excess extra unit after arrival of new engine  -Sale of Pipeline #77 as excess unit	-Reduction of maintenance costs and significant improvement of fleet age  -Reduction of maintenance costs and reduction in fleet size  -Reduction of maintenance costs and fleet size reduction	-Potential costing of \$500,000 to 600,000  -\$30,000 potential sale value return into budget  -\$25,000 potential sale value return into budget

2026-2027	<p>-Purchase/lease of OIC vehicle for Darby #76 for duty officer. Consider pickup truck chassis to be used for prime mover/duty officer. Replaces 2007 Ford F-150</p> <p>-Specification and purchase of potential used engine chassis for Darby #76 to be E76</p> <p>-Sale current 2003 Spartan E76 to maintain within fleet numbers</p>	<p>-Examination of unit with no more than 5 years of service</p> <p>-Unnecessary unit with arrival of replacement model</p>	<p>-\$50,000 investment unless leasing is considered</p> <p>-Potential maximum cost of \$300,000 for unit</p> <p>-Potential resale value of \$60,000 return to budget</p>
2028-2029	<p>-Purchase/lease of OIC vehicle for Briarcliff #75 to replace 2006 Chevy Tahoe. Consider pickup truck chassis to be used as prime mover/duty officer vehicle.</p>		<p>-\$50,000 investment unless leasing is considered.</p>
2031 (ten-year cycle)	<p>Process would begin again with replacement of oldest/highest maintenance units after evaluation</p>		

This plan, although aggressive, can be adjusted over a longer period if budgetary commitments are not feasible. The order of unit replacement is based on time, mileage, condition, and maintenance of units. Appendix A attached at the end of the report was utilized to numerically grade all township units and then form a critical list for order of replacements.

### **Direct Purchase Financing versus lease options**

The most traditional method of apparatus purchase is via financing of the unit from a manufacturer with utilization of lower interest loans. Typically, it is much easier to apply for financial aid in consideration of a new design unit however, organizations will be faced with higher estimated costs particularly in today's custom chassis environment. Competitive bidding and comparison of like models with emphasis on cost effectiveness of dollars invested should be the mode of consideration. Likewise, a committee should be formed to determine what is mandatorily needed to best suit the emergency response functions for Darby Township and not necessarily what are modern trends and thoughts.

Leasing, or referred to as a lease-purchase agreement, is becoming a more common solution to spreading costs on new design units out over a wider span of year of service. The reason this option is called a lease purchase rather than a loan is that you have the choice each year to cancel the agreement. By having this choice, most states consider this financing option an operating expense



and it does not count toward any debt limits. However, when you choose to cancel the agreement, you return the truck to the bank.

The turn-in lease is like a walk-away lease with a couple of important differences. Like the walk-away lease, this option is designed to allow use rather than ownership of the truck. The difference comes at the end of the financing term, usually five or seven years. At that point, your choice is either to turn in the truck to the manufacturer and receive a new truck or purchase the truck for set amount, which was agreed upon upfront.

One disadvantage often cited with lease is that the physical property is often never an “owned” unit and thus no resale value can be ever be generated. At the same time since the unit is not owned the indirect losses of devaluation do not get passed on within fiscal budgets. In addition, maintenance programs can often attach or financed with the lease of the unit also removing some of that cost burden, operating similar to insurance on the unit and covering some large expenses.

### **New Design versus rehabilitation**

Obviously new design fire apparatus offers many advantages in dependability, serviceability, year of available use, and as a source of company pride. However, given the financial concerns of Darby Township and at least two of the township organizations, the high total costs must be considered. Likewise, new design units may take well over a year for construction and months for delivery, speed will not advantageous.

Rehabilitation of units which are seldom frontline or see lower response needs should be considered when that apparatus still meets safe standards. These units for rehab already are past resale value of year of service, and generally see little input maintenance investment. Darby Township may examine or consider slightly aged units as candidates for rehabilitation or updates to facilitate NFPA compliant requirements, and still have some lifespan within the community while seeing lower costs in comparison to a new design purchase. These units will be outlined within the sample replacement plan of the report. NFPA 1911 Annex D Standard for Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles should be no longer than a 25-year time span. Any unit over that age should be considered non-compliant to safety regardless of mileage. NFPA 1901 Standard on Automotive Fire Apparatus as in the last revamp states no fire apparatus should be frontline with 15 years of service, or as a reserve with 20 to 25 years of service. Beyond 25 years of service is considered obsolete, of little value, and often will not meet current safety standards for effective response.

### **Facility Improvement Plan and merger/consolidation advantages**

Physical facilities are as important to the community as the fire apparatus and personnel that respond from them. They are a source of pride for membership and provide security for fire department resources. It is imperative that Darby Township assist in supporting the facility infrastructure as well. All facilities should be designed to allow for residency of staff for housing during emergencies including working kitchens, male/female dormitories, bathroom facilities, office space, classroom space, and physical fitness facilities with overall health and welfare anticipated. In addition, space should be segregated for additional floor space for apparatus and

equipment storage. It is highly recommended that architects are consulted for any long-term additions to township facilities as these buildings often have a lifespan of 40 to 50 years of use.

From the perspective of potential shared service delivery, it is important that fixed facilities like fire stations be carefully taken into consideration, depending on the degree to which the agencies may elect to combine future efforts. If the fire departments will remain separate, independent agencies that simply collaborate with each other, the concern is lessened. However, when evaluating more structured options for future shared service delivery initiatives, including legal unification, fire stations and their continued viability become a critical factor. If agencies choose to combine formally, one with comparatively new and adequate fixed facilities may inadvertently inherit a financial liability that comes with another fire department that has capital assets. Due to their considerable expense, the potential financial liability that may be realized regarding some facilities must not be discounted.

Briarcliff's Fire Company's present facility offers both space and appears to be in the most functional shape for its relatively new reconstruction. Goodwill's facility would require a significant amount of expansion and thus would not be stable platform to house the merged agency. The township can benefit in terms of supporting cost needs of a single facility within the northern district and supporting the merged agency and costs. This is a direct savings in terms of utility costs, maintenance, and needed improvements to dated structures. It is far more effective for the township to assist with maintenance of two acceptable and maintained facilities to cover the geographic area or response.

In conversation and in appearance. Station #75 appears to have received much attention and remodeling and seems to be in more than satisfactory condition. Through verbal interviews, Darby #76 is in a facility that will require extreme renovation and freshening. Responsible parties are directed, within the next three-year period, to target investment needs or potential expansion of this firehouse to include needed staff facilities. This improvement plan should be inclusive of zoning specialists, architects, and a firm with significant background in firehouse renovations. At the same time, Darby #76 should be conservative on the size, intricacy, and financial burden of the facility due to the service demand of the community. NFPA 1500, 1720, and 1851 should be referenced by parties in planning for facility changes.

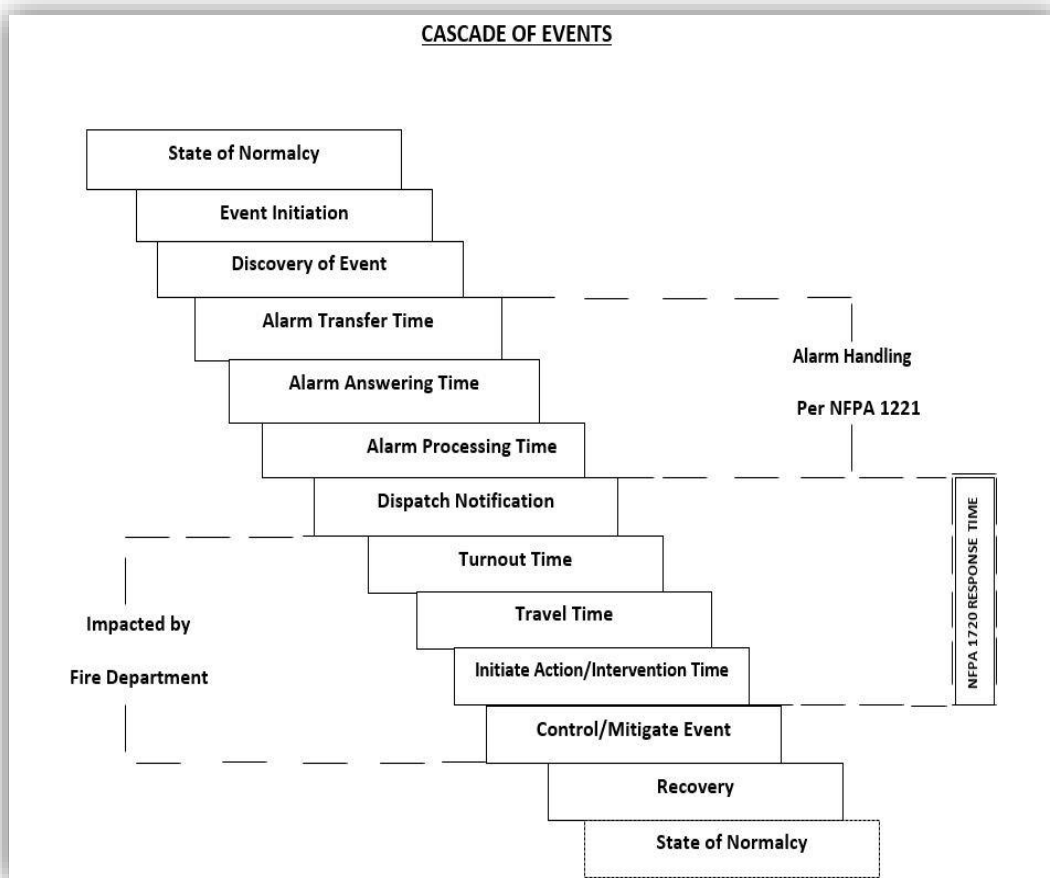
The current facility of Goodwill Fire #77 should no longer house any township apparatus or address any emergency response function, and therefore should not receive Darby Township financial support for facility improvements/needs. If any private agency wants to maintain or change that building it would be the decision of the private 501c-3 agency that maintains that title and deed to the legal property to remodel or sell at market value. Legal council should be consulted on any interchange or sale of land property including historical searches for title liens which may be unknown but pose an issue to real estate sale.

The Federal Emergency Management Agency release a document in 1997 with critical input and thoughts for station designs and should be referenced local elected officials for funding and design criteria (Safety and Health Considerations. 1997).

## Fire response and staffing benchmark performance objectives as per NFPA 1720 for the suburban area.

Perhaps the most visible and notable of emergency services to the public, response performance is the primary measure by which the public gauges overall effectiveness. Response time can be measured in a number of parameters, but industry standards suggest that performance be measured on a percentile rather than simply reporting the average.

Response time, however, is not simply a matter of operational response. The response time continuum begins when someone calls 9-1-1 and ends when the appropriate resources are on the scene of the incident. The response time continuum, the time between when the caller dials 9-1-1 and when assistance arrives, is comprised of several components. The pictorial below entitled Cascade of Events displays the total response time paradigm:



- Alarm handing time – The amount of time between when a dispatcher answers the 9-1-1 call and resources are dispatched.
- Turnout Time – The amount of time between when units are notified of the incident and when they are in route.

- Travel Time – The amount of time the responding unit actually spends on the road to the incident defined under NFPA 1720.
- Response Time – A combination of turnout time and travel time and generally accepted as the most measurable element defined under NFPA 1720.

**The National Fire Protection Association (NFPA) Standard 1720: *Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, And Special Operations to the Public by Volunteer Fire Departments*, is the Nationally Recognized Standard for evaluation of Staffing and Response Times for Volunteers**

Demand Zone <sup>a</sup>	Demographics	Minimum Staff to Respond <sup>b</sup>	Response Time (minutes) <sup>c</sup>	Meets Objective (%)
Urban area	>1000 people/mi <sup>2</sup>	15	9	90
Suburban area	500–1000 people/mi <sup>2</sup>	10	10	80
Rural area	<500 people/mi <sup>2</sup>	6	14	80
Remote area	Travel distance ≥ 8 mi	4	Directly dependent on travel distance	90
Special risks	Determined by AHJ	Determined by AHJ based on risk	Determined by AHJ	90

<sup>a</sup> A jurisdiction can have more than one demand zone.

<sup>b</sup> Minimum staffing includes members responding from the AHJs department and automatic aid

<sup>c</sup> Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.

### Average qualified staff response times

Insufficient data was provided to estimate the average on scene personnel for this report. Ten interior firefighters within ten minutes should be the standard of coverage for Darby Township 90% of the time and should be further measured by responsible administrators. If this average number is not being met, what are the root obstacles to arriving at this benchmark? As referencing back, the ISO report indicated loss of potential points based on staffing levels and response modeling taken from call statistics.

**Average response and on scene time estimate for structural fire incidents (111) (estimated from 2019 NFIRS data)**

Fire Department	Turn Out Response Time After Dispatch	On Scene Arrival Time After Dispatch	Number of incidents
Briarcliff Fire #75	6 min. 20 sec.	6 min 31 sec.	21
Goodwill Fire #76	2 min 25 sec.	6 min 10 sec.	14
Darby Fire #77	6 min 10 sec.	1 min 50 sec	11

**Average response and on scene time estimate for structural fire incidents (111) (estimated from 2020 NFIRS data)**

Fire Department	Turn Out Response Time After Dispatch	On Scene Arrival Time After Dispatch	Number of incidents
Briarcliff Fire #75	4 min. 44 sec.	6 min 31 sec.	20
Goodwill Fire #76	Not provided	Not provided	-
Darby Fire #77	5 min. 25 sec.	6 min 25 sec.	14

**Average number of qualified interior personnel responding to structural fire incidents (111) (estimated from 2019 NFIRS NFPA1720 report data)**

Fire Department	Number of Personnel	Number of incidents
Briarcliff Fire #75	3 personnel	20
Goodwill Fire #76	4 personnel	-
Darby Fire #77	Not provided	14

Note: Two (2) township fire departments indicated significant difficulty with being able to provide organization call response data from available in-house software. County dispatch provided response time statistics that was translated to useful formation. This is a failure that must be corrected as fire department strategic decision making should also be based on good, evident data of call location and response times. An Executive Chief often utilizes these records to justify needs and response gaps. It is recommended under the supervision of the township, that all departments be audited for in-house call data, times, and the ability to utilize software truthfully.

In addition, it was noted that the response times for Goodwill Fire are questionable, at best, given that incident data for 2019 often displays that a unit responded in 1 second from dispatch on 7 of the structure fires reports from the county communications system (highlighted above). This is highly improbable that any apparatus responded that swiftly on 7 occasions for any comparable organization nationwide. Due to this abnormality, the data should be questioned for accuracy given call response times for this agency for that year provided. No decision can be made if NFPA related times are being met within Darby Township.

Fire report documents collected in the National Fire Incident Reporting System (NFIRS) are often the only legal protection format that a fire department faced with challenges of liability or negligence can produce, and to further verify a departments correct actions in emergency and non-

emergency operations. On a monthly basis all township departments should provide elected officials with an accurate list of incident locations, incident times, and outcomes generated from fire department software utilized by the organization. The township should verify that all staff know how to utilize fire department reporting software correctly and enter accurate (nonfiltered) time for each apparatus individually or face some type of corrective action.

Further analysis should be performed to see if the 10-minute arrival is being met at the 80 percentiles, as the above numbers are an average (median) response to the scene which would indicate some responses are great and some less than the time hacks recommended. The 10-minute arrival must occur at 80 percent of the incidents according to NFPA 1720. Without further relevant, accurate data it is impossible for this report to state this is being met within Darby Township. It is probable, given the average arrival time of 6 minutes 20 seconds that this is being met within Darby Township.

### **Average Interior Qualified Response Manpower Numbers**

Fire department activities are not only measured by time, but also by number of qualified personnel applied to an emergency scene. The important data point is the number of qualified and trained fire fighters on scene to control pre-flashover conditions. Personnel that remain in quarters or of a social membership to the organization are not considered within this plan and unfortunately do not lend to the emergency scene. On scene numbers of responders are what are measured under NFPA 1720 and strongly considered for full staffing under ISO.

Viable incident staff numbers from Darby #76 were not provided, after repeated contact and thus cannot determine average staff numbers for purpose of this report. Goodwill stated that 4 qualified personnel responded on average to structural fire responses in 2019 but did not provide the incident data for accuracy. Briarcliff's response indicated an average of 3 personnel for structure related responses and was verified by reporting software. That sum of 7, not including data from Darby #76, is somewhat below that required of NFPA 1720 (10 total) and should be closely monitored.

If available volunteer response numbers wain, and verified by data collected, then Darby Township will need to begin the impending discussion of compensating volunteer staff for duty hours within a facility, utilization of other already employed community members who can depart work, or eventual development of a small career contingent for peak hour coverage.

**Opportunity Statement #3****Analysis of minimum and consistent Standard Operating Guidelines and Work Rules for township fire and rescue service. Identification of policies and directives that are absent which create liability for the organization.**

A core principle of any high reliability organization is that of clear, concise policies, procedures, and work rules that staff are aware of, and educated to. Some policies are designed to ease day to day operations and questions, while others may satisfy legal requirements and mandates for the fire department. One element of these documents is to prevent or limit liability to an organization or municipality in case of an accident or injury, however, should be adopted as industry best practices, regardless.

Policy planning and development is a major investment of time for fire department leadership and is continuously in need of editing or amendment. All echelons of staff should be regularly consulted in drafting and refinement of policy so that all tiers of the organization can embrace and comprehend how it would affect their work environment and be applied within Darby Township.

Many critical and mandatory policies and procedures are necessary, and all tiers of staff have ownership and application of these documents and procedures. Several of the requirements are listed below and if not present, should be a high priority for research and adoption. You can clearly see that several of these have a history of leading to litigation of emergency service organizations, often with high liability.

Fire department management staff must assure that the following policies exist, and if so, do they match the needs and protection of staff and local government? All policies should be reviewed and updated at a minimum on a two-year cycle by command staff, chiefs, or policy review committee.

- Driver Qualification/Driver Operator Training Standards
- Mandatory Seat Belt Usage
- Incident/Accident/Injury Reporting Methods (Including Near Miss reports)
- Training Requirements and Standards for Separate Staff Levels
- Apparatus Safe Backing Procedures
- Incident Scene Operations and Tactical Procedures
- Scene Safety and Incident Support
- Personal Accountability Systems and Tracking
- Personal Protective Equipment/Self Contained Breathing Apparatus Maintenance
- Use of Personal Vehicles for Emergency Response/Blue Light Laws
- SCBA-Facial Hair/Fit Testing Requirements to OSHA Standards
- Mayday/Rapid Intervention Policies and Procedures
- Social Media and Free Speech
- Drug and Alcohol/Employee Assistance Programs
- Exposure Reporting/Blood Borne Pathogen Protection to OSHA Standards
- Traffic and Highway Response Procedures and Scene Safety

The township should monitor completion of policy analysis, review, and adoption to bring the entire combined system into operational and daily alignment of staff and activity. All policy changes must go through rigorous training and communication with all staff of the combination system. All department staff members should mandatorily sign off on each policy notifications as to eliminate human error or claims of not being given due notice. All policy changes should be published both electronically (signed form) and in printed content within each fire house. In addition, each policy change should be used as training component or, more correctly, company level policy training for additional exposure and consumption as part of the annual training plan.

Common “Best Practice” documents that often are used to generate policies may be drawn from the following Volunteer Fire Insurance Service (VFIS) website at [SOG Finder \(responderhelp.com\)](http://SOG_Finder(responderhelp.com)). This reference can provide a baseline document which can then be tailored to fit the needs and language for all Darby Township fire departments. This resource is inclusive of administrative and operational documents common to most fire departments. The International Association of Fire Chiefs also offers an archive of examples as well as networking opportunities to find policy examples. In today’s age, it is not difficult to find a policy, but it must be vetted to fit your specific organization and resources available.

This element of the report is considered a **short-term goal for organization development**, mostly due to the inherent liability of an accident and not having a corresponding policy or agreement to protect the municipality. All senior staff can be engaged in the development and editing of workable policies.

Currently each of three departments presented a wide variety or prepared policies which do not appear to be standardized by expected outcome or performance.

**Briarcliff Fire Company #75 Policy Evaluation and Analysis:** This department presented the most thorough compilation of available policies for both administrative and operational concerns. One important aspect that this department has adopted that should be utilized at a township level are mandated background checks including Pennsylvania State Police Criminal History research, Child Abuse Clearance Investigations, and should consider and Federal Bureau of Investigation background check as well. These practices, completed on a biannual basis, protect the agency from not being made aware of individual legal issues, but also protect the public at large with providers who profess to have high standards and ideals. It is recommended that all departments within the Commonwealth utilize these periodic reviews on all emergency personnel.

Also, this same department outlines policy on zero tolerance of controlled substances within the firehouse and during duty hours. Again, this is critical for organizational and township protection, but speaks to the principles and values of fire department services and thus should be mandatory at the local government level and amongst all emergency service.

As junior firefighters are reflected in township operations, very clear policy development should made outlined on the use of minors (less than age 18) and Pennsylvania Child Labor Laws, defining what a junior firefighter can be allowed to do in their duties. The Pennsylvania Department of Labor in conjunction with the Pennsylvania State Fire Academy has an easily referenced PDF document entitled “Pennsylvania Junior Emergency Service Compliance Manual”



that provides a very clear explanation of the limitations of junior service programs. Policies should be generated after referencing this document (Pennsylvania Junior, 2015).

This department has taken a vital step in recognizing the risk of emergency vehicle operations, requiring proof of Pennsylvania Driver's License, and in the event of an accident must voluntarily participate in blood alcohol and drug screening as well as outline the result of the driver refuses to test. All department should fall under standardized requirements for vehicle operation and annual training which should be supported and verified annually by Darby Township or a safety committee. This area will be discussed further later in the report. It is also noted that the use of safety belts during response appears mandatory and should be a disciplinary issue for a member if violated according to the policies presented.

This department also has taken a proactive step to include written description and explanation of social media use and potential issues that members may cause by these platforms. The misuse or social media can be damaging publicly to both the departments and the Township at large. Darby Township should craft township wide standardized practices, that all fire departments adhere to in use of social media. It may be wise to create social media presence for the Darby Township Fire Departments which is managed by a limited number of personnel who vet and verify what is released officially by either the fire service or Darby Township.

Briarcliffe also has an apparatus placement policy which should be expanded to not include arrival placement but also arrival tasks that should be accomplished for residential, multi-residential, and commercial property responses. This policy should be ratified and utilized by all apparatus within the region to create an increase in safety and effectiveness on the fireground with reduction or confusion of assignments in the initial moments of most fires. Many of these templates are easily available to locate with an internet search.

**Goodwill Fire Company #77 Policy Evaluation and Analysis:** A current copy of the working policies was provided, which were emergency operational in nature. Not to underestimate the need for these working rules, however, many administrative policies were not provided or available and thus expansion and definition is required.

I do appreciate that a section of the standard operating guideline was titled as "philosophy" and describes the intent of the specifics of policy and some flexibility in policy design may be required due to the unknown details of emergency response. All policies should have an intent and mission section which describes the why or command intent of why this work rules was created and how rigid that policy may be.

Also, the Goodwill Fire has an excellent format that all township wide directives and policies should be structured universally, with a common reference number. This commonality and interpretation of policy should be crafted within a committee structure, reviewed by involved staff for necessary edits or clarification, and then final review (section 3.07) and acceptance by a group of chief officers from involved agencies. Within this section, the distribution method for policy and directive change should be adopted across all agencies, as training and education (acknowledgement) must be certified and recorded in an electronic database.

This department outlined a communications policy for radio use, and as a foundation policy must be expanded to include to all types of communications that may be utilized during an emergency response. Policy should be expanded to included Mayday traffic, urgent message needs, and standardized CAN (conditions, action, needs formats). Communications systems are also inclusive of size up methods, 360 degree walk around updates, unit assignment/task feedback, roof reports, and incident updates during benchmark times which must also be defined via policy and built into training and operations township wide.

Policy 7.01 Incident Critiques is extremely valuable as a training tool. All township departments should adopt a similar position that any incident of a great magnitude or unusual nature should have all details collected, reviewed by staff, and published or shared as a training document. These critiques often reveal gaps in policy, needs of future learning, or equipment problems that need to be solved prior to a similar response and applauds this inclusion in a policy manual.

Department does present a minimum staffing requirement based on call type and this should be adopted and reinforced across all responses to meet NFPA 1720 Standard for the Organization and Deployment of Fire Department Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.

**Darby Township Fire Department #76 Policy Evaluation and Analysis:** The policies presented from this department need vast expansion and clarification. In combination work with the other agencies and adoption of good working documents that already are created, this should be an easy accomplishment.

The assignments for building fires and explanations of task and unit locations were noted to be exceptional and should be formatted to standardized document township wide.

No administrative policies were provided, and again development can be done amongst committees of command staff chiefs with cooperation of township representatives.

**Opportunity Statement #4**

**Training is the backbone of effective fire departments. A mandatory training plan must be developed on an annual basis to reinforce necessary minimum skills as well as acquisition of new information and skills. The objective is for the training plan to be scheduled and consistent for all staff of the volunteer system across all firehouses, as well as to have a robust method to track and file personnel training hours.**

Training and development of personnel is the backbone of an effective emergency service organization. Fire department personnel, in today's age, find themselves overwhelmed with many services and requirements offered to our communities. Some of the training is based on identified subjects for skill acquisition, and some are based on annual, mandated requirements set forth by other agencies. Like most fire department in the nation that are referred to as "all hazards", to be up to standard, a department should be developing almost every day with staff due to the relative amount of information that needs refreshed and the pace the new information is made available.

Training plans can be structured via an annual template that allows department management to track and located completed educational benchmarks, and to verify that requirements were met to keep personnel up to industry standards. Training plans need to cover certain refresher requirements but also should have an element of progressive skill development which challenges staff to improve in response knowledge and skills that are most likely to occur within their response territory. Annual training plans may even need to be tailored to specific groups within the fire organization such as fire officer development meant to improve line officers and command staff for their needed job specifics. National Fire Protection Association 1500, Standard on Fire Department Occupational Safety, Health, and Wellness as well as Occupational Safety and Health Administration should be referenced and included with a department wide risk management plan to design a successful training format.

Planning of training, according to discussions with each separate Darby Fire agency, is organized by the individual parties, however, may be attended and is often advertised across all agencies. It was shared in two verbal statements that, for the most part, training issues are not shared problems and analysis of training needs are not necessarily being considered with a plan or end state in mind.

In consideration of services offered within the Darby Fire Department, the annual training plan must be comprehensive, and account for refreshment of skills, documentation of mandatory annual requirements, and acquisition of new skills or knowledge for staff to improve. Training and development are one of the leading personnel staff hour investments in consideration of time investment. Additionally, plans and information must be presented and accessible to career and volunteer staff equally. One goal of a consistent training plan should be staff training of all members to be cross trained amongst operations of all township department available apparatus, or within separate facilities. Organizational boundaries must be broken down so that a volunteer member is prepared to operate amongst varied task, or on a diverse type of apparatus.

Another consideration is limited man hours for annual training. Planning of topics must be deliberate based on both “back to basics” concepts, what the department may be struggling with, and potentially new service skills that must be displayed for the public.

The township and all fire agencies should define what is the task definitions of each rank in a described document and then assign what are the professional training standards needed to function in that job role. All training requirements should be defined by National Fire Protection Agency standards and could be adopted as defined below.

**Potential adopted minimum training standards per rank (consider for target adoption)**

**Firefighter**

State Essentials/Basic firefighting program  
IFSAC/Pro Board Firefighter I certification (NFPA 1001)  
Basic First Aid, CPR, Blood borne pathogen  
NFPA 472 Haz Mat Awareness IFSAC/Proboard certification  
NIMS Awareness level IS-100, IS-700

**Driver/Operator**

State Essentials/Basic firefighting program  
IFSAC/Pro Board Firefighter I certification (NFPA 1001)  
Basic First Aid, CPR, Blood borne pathogen  
NFPA 472 Haz Mat Awareness IFSAC/Proboard certification  
NIMS Awareness level IS-100, IS-700  
Emergency Vehicle Operations Course (EVOC) or Emergency Vehicle Driver Training (EVDT DOH)  
IFSAC/Pro Board Driver Operator (Pumper, Aerial, Tractor Drawn, Mobile Water as required per unit)

**Lieutenant and Captain**

IFSAC/Pro Board Firefighter I certification (NFPA 1001)  
IFSAC/Pro Board Firefighter II certification (NFPA 1001)  
IFSAC/Pro Board Fire Officer II (NFPA 1021)  
Basic First Aid, CPR, Blood borne pathogen  
NFPA 472 Haz Mat IFSAC/Proboard certification  
NIMS Awareness level IS-100,IS-200,IS-700

**Assistant Chief, District Chief, Deputy Chief**

IFSAC/Pro Board Firefighter I certification (NFPA 1001)  
IFSAC/Pro Board Firefighter II certification (NFPA 1001)  
IFSAC/Pro Board Fire Officer III (NFPA 1021)  
Basic First Aid, CPR, Blood borne pathogen  
NFPA 472 Haz Mat IFSAC/Proboard certification  
Incident Command training  
NIMS Awareness level IS-100, Is-200, IS-700, IS-300

## Fire Department Chief

IFSAC/Pro Board Firefighter I certification (NFPA 1001)  
IFSAC/Pro Board Firefighter II certification (NFPA 1001)  
IFSAC/Pro Board Fire Officer IV (NFPA 1021)  
Basic First Aid, CPR, Blood borne pathogen.  
NFPA 472 Haz Mat IFSAC/Proboard certification  
Incident Command training  
NIMS Awareness level IS-100, Is-200, IS-700, IS-300, IS-400

This analysis is influential in terms of gaining grant funds and impactful of ISO ratings, defined in the ISO analysis section earlier, and should be viewed as a **short-term strategic goal** of the study. Training periods or scheduling should be inclusive of company level preparation (small group planning), multi-company level training (multiple units or shift level), command staff (strategic units) and should occur during the day and shared night operations to reach available volunteers and include them in collective education. Individual fire companies within Darby Township can most certainly organize individual training or certification, however the plan should coincide with training committee objectives, and open advertisement department wide of training opportunities and locations. Any training that is completed should be adjusted on the annual objectives of the training committee which should be published annually well ahead of a January time frame.

A strong suggestion is the creation of a Darby Township Training Committee composed of a forward thinking, prepared member of each of the two remaining departments, and under the direction of the chiefs of the department to compose, organize, schedule, document, and audit the annual training plans with events that all Darby Township emergency responders are welcome to attend. Any number of members can be included in the committee as required for impression generation, or subject matter expertise as well as helping to manage training needs. It may be helpful as well to utilize this same committee for after action reviews or safety/accident analysis as an added feature.

Appendix C adds some sample content for construction of a clean training plan and would recommend personnel examine Belle Vistas Training Resources which can be located at [Bella Vista Fire Department Training – Situational Awareness in All Aspects of Training \(bvfdtraining.com\)](http://bella-vista-fire.com/bvfdtraining.com). This department provides a clean and thorough assessment of training needs annually as well as few adopted plans and calendars. The appendix also presents some additional points of consideration for training staff to consider.

**Opportunity Statement #5**

**Development of efficiencies of finance and examination of revenue generation to support needs of local responders. Communication annually with township elected officials on financial matters and budget management of volunteer departments as a mandate.**

Financial auditing is also a general business tool to verify that funds are being spent as requested and adds transparency from the public viewpoint. Very few private and public agencies ignore the need for quality audits, and generally see this as a method to avoid corruption or questions of ethical spending. Emergency service agencies, whether non-profit or otherwise, should perform and present an annual audit and budget presentation yearly to the elected officials for proper exchange of information and verification of non-ethical practices. This can be done both in open public forum meetings and then reviewed by the strategic planning committee mentioned earlier within this report.

Local fund-raising efforts, such as mailers can be continued, however, have seen dramatic reductions in returns on investment over the last two decades. In addition, time concentrated on fundraising often can detract from time targeted on operational preparation and works against the mission of the local fire department.

**Municipal Financial Support**

Within the Commonwealth of Pennsylvania, the first-class township code (Public Law 1206, no. 331 adopted 1931) allows for a maximum millage rate for fire supportive taxes at 3 mills, and a .5 millage rate may be set to support Emergency Medical Services.

Millage is defined as the amount per \$1,000 of property value that is used in local property tax value. Assigned millage rates are multiplied by the total taxable value of the property to arrive at this value. Generally, the millage rates are adjusted on the same time span of when property value assessment cycles occur.

Currently Darby Township had a set a local fire assessment tax of 1 millage in 2020, however had a reassessment in 2021 with a new adopted millage of 0.62 millage. This tax revenue generation platform is spread over approximately 4100 collecting properties within the township which relates to a total of \$501,519,911 total taxable property value. In 2020 and 2021 the assessed fire tax created \$29,243 tied directly back to emergency service funding. The property tax value collected for that fiscal year (2020) was \$4,046,106.

It is recommended, with the deliberation of elected officials and in consideration of current political climates, that the millage rate for the township be incrementally increased over a three-year period from 0.62 back to 1.10 mill by 2024. With full rate acceptance this should generate an approximate \$51,215 in 2024 from the fire tax which can be directed annually in its entirety for capital budgeting purchases. Each fraction of increase (0.1) of the millage rate would introduce an estimated \$5,000 to this revenue source.

These estimated funds will assist in stabilizing logistical operating expense needs of the fire township departments. Obviously, this must be done with justification and transparency to the tax paying public. Elected officials should be able to present the return on investment of each dollar back to service quality of the fire department, whether it be a purchase of a tool or integration of a level of training.

The local fire tax is most likely not enough to support all operational needs, so other forms of revenue, financing, and grant service must be examined. It is important to underscore that recommended municipal funding will not cover all fire department operations, either. It is intended to provide a portion of the total funding necessary for total fire department operations. This funding should allow members of the fire companies more time to focus on fire department operations and less time on fundraising activities in the volunteer setting, thereby increasing the efficiency and effectiveness of time-on-task duties. While all operating expenses are not funded with municipal dollars in this approach, each fire company should examine ways to reduce expenses and increase the return on investment for each dollar spent.

Note: Local elected officials should consult with their respective legal counsel or solicitor regarding the use of municipal funds appropriated to their fire companies and tracking of fund expenditures. The township solicitor or attorney should be consulted prior to implementation.

### **Utilization of Pennsylvania Fireman's Relief Funding**

A document that can be used as a basic reference to start this process is *Management*

*Guidelines for Volunteer Firefighters' Relief Associations* published by the Auditor General of Pennsylvania.

<http://www.auditorgen.state.pa.us/department/info/fire/VFRAManagementGuidelines2012-rev.pdf>

Most fire companies should be familiar with this publication as it is often referenced by various Relief Associations (VFRA). With some modification according to needs, the management guidelines described could easily be adapted for and used by the fire companies for their corporate business. The VFRA document provides a starting point for minimum requirements. Also, of assistance be the Pennsylvania Association of Nonprofit Organizations (PANO) which maintains a Standards of Excellence program.

- PANO Home page: <http://www.pano.org/Standards-For-Excellence/>
- Standards of Excellence Self-Assessment checklist:  
<http://www.pano.org/Resources/I%20-20Self%20Assessment%20Checklist.pdf>

It is imperative that each fire company, as a non-corporation, conduct itself in compliance with all applicable local, state, and federal laws and regulations.

## **Current Relief Fund Balance as of September 2021**

Station 75: \$4,376.91 (after subtracting negative balance of \$2,984.15 owed due to an unpaid gear bill from 2017)

Station 76: \$41,204.36

Station 77: \$12,906.10

It is highly recommended that available funds listed above begin to target a year-to-year replacement of, at minimum, 5 sets of new turn out gear and up to 10 replacement NFPA 1981 compliant self-contained breathing apparatus. All fire companies within Darby Township indicated that current personal protective equipment and SCBA were dated and in need of a replacement plan. Each corresponding year, a bulk expense is made of similar specified and purchased gear and SCBA for each department with the plan being a cycle improvement of Personal Protective Equipment. It is seldom cost effective or feasible for most municipalities to buy entire “new” packages of these items as replacement costs are high and will be repetitive. It is far easier to finance and plan small purchase numbers of these expendable, time dated items year after year. Fireman’s Relief funding can absolutely be used for these items and with at least one department experiencing a surplus, this replacement purchasing should be in short order. For example, a department may choose to replace 5 sets of turn out gear, and 4 air packs annually, repeating the cycle until any obsolete units are eliminated.

It must be noted that any item purchased by fireman’s relief is also owned by the relief association related to the municipality and in case of mergers and consolidations can be shared with other interrelated agencies who are part of the same relief funds group. All equipment purchased must be tracked by the fireman’s relief association as well as all related expenses for the lifetime of the item as required by the Commonwealth legislation.

In addition, fireman’s relief funds can be directed toward portions of fire apparatus and equipment. Limitations on use of funds can be in located detail in the above referenced VFRA management guideline.

## **Other Recommended Funding Options**

There are other available methods to alleviate some costs (grants) or advantage of loans in purchasing and funding of operational needs of fire departments. In some cases, a grant writer may be consulted or enlisted to complete necessary paperwork to file for federal and state grants if specific and measurable projects are known or projected. Several of the below listed grants are defined as competitive grants and may require that the township or fire department employ a third-party grant writer specialist. Often the grants require a very detailed explanation of objectives, and an element of planning to close out the authenticity of the granted project.



## **Federal Grant Options:**

### **FEMA Assistance to Firefighters Grant (AFG) Program**

This program enhances the safety of the public and firefighters with respect to fire and fire-related hazards by providing direct financial assistance to eligible fire departments, nonaffiliated EMS organizations, and State Fire Training Academies (SFTA) for critically needed resources to equip and train emergency personnel to recognized standards, enhance operational efficiencies, foster interoperability, and support community resilience.

For more information - <https://www.fema.gov/assistance-firefighters-grant>.

### **FEMA Fire Prevention and Safety Grant**

The Fire Prevention and Safety (FP&S) Grants are part of the Assistance to Firefighters Grants (AFG) and support projects that enhance the safety of the public and firefighters from fire and related hazards. The primary goal is to reduce injury and prevent death among high-risk populations. In 2005, Congress reauthorized funding for FP&S and expanded the eligible uses of funds to include Firefighter Safety Research and Development.

For more information - <https://www.fema.gov/fire-prevention-safety-grants>.

### **FEMA Staffing for Adequate Fire and Emergency Response (SAFER)**

The goal of the Staffing for Adequate Fire and Emergency Response (SAFER) grant program, offered through the Federal Emergency Management Agency, is to assist local fire departments with staffing and deployment capabilities in order to respond to emergencies, and assure that communities have adequate protection from fire and fire-related hazards.

For more information - <https://www.fema.gov/staffing-adequate-fire-emergency-response-grants>

### **US Department of Agricultural Community Facilities Grant and Loan Program**

Public bodies and non-profit organizations in rural communities (less than 20,000 residents) can use funds to construct, expand or improve public facilities. This includes municipal vehicles, police vehicles, fire trucks and fire stations. Graduated scale of grant assistance based on population and poverty, with highest priority to communities with a population of 5500 or less and median household income below 80% of the state nonmetropolitan median household income.

For more information - <https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program>.

## **State Grant and Loan Options:**

### **PA Office of State Fire Commissioner: Volunteer Loan Assistance Program**

The Volunteer Loan Assistance Program (VLAP) provides loans at a fixed 2% interest rate to volunteer fire, ambulance, and rescue companies for the acquisition, rehabilitation, or improvement of apparatus, facilities, and equipment. More information at [www.osfc.pa.gov](http://www.osfc.pa.gov).

### **The Fire and Emergency Medical Services Loan Program (FEMSLP):**

Provides loans at a fixed 2% interest rate to fire and Emergency Medical Services (EMS) companies for the acquisition, rehabilitation, or improvement of apparatus, facilities, and equipment. OSFC staff provides technical assistance and regulatory guidance to applicants; receives, analyzes, and approves loan applications; supplies loan closing services; maintains financial and historical files and services all accounts until they are closed.

### **Loans are made for the following purposes:**

- **Apparatus:** to purchase new, or to repair/rehabilitate apparatus that no longer meets NFPA standards and to bring it into such compliance
- **Facility:** to construct or modernize those portions which house apparatus or purchase a used facility
- **Equipment:** to purchase accessory, communications, or protective equipment

## **Private Agency Funding:**

**Erie Insurance Giving Network:** <https://www.erieinsurance.com/givingnetwork>

**Firehouse Subs Public Safety Foundation Grants:** <https://firehousesubsfoundation.org/>

**FM Global Fire Prevention Grant Program:** <https://www.fmglobal.com/about-us/our-business/corporate-responsibility/fm-global-fire-prevention-grant-program>

### **Creation and Implementation of Township wide third-party insurance billing resolution:**

Provisions for insurable billing have been in existence since the 1700's and platforms for third party billing relationships for fire response, hazardous material response, and vehicle accidents have become common place in local government agreements, nationwide.

Historically, municipalities across the U.S. have charged fees to community residents based upon certain services provided. Examples of long-standing municipal fees include. building and licensing fees, and administrative fees for sewer and trash collection. Typically, the user of the service pays the fee. This funding mechanism enables communities to raise additional revenue without increasing property or personal taxes. In recent years some municipalities have been charging a new kind of fee. These fees are designed to recoup the cost of auto accident response services provided by police and fire departments or expenses accumulated from structural firefighting operations. Using a third-party claims administrator to help fire departments reclaim costs is legal and not new in Pennsylvania.

Most third-party agencies pursue vehicle insurance providers for over the road incidents and may include accidents of great environmental impacts as well. Fires, flooding, and other disaster response can be billed to homeowner policies. At no time should a private, local volunteer fire department present a resident or business with a direct service bill as this can be labeled as unethical, and generally unauthorized by local elected official visibility.

This report shall recommend adopting resolutions or ordinances permitting for insurance billing (not direct resident billing), by all recognized fire and rescue agencies within the township. The billing, however, should involve a representative of local government so that certainty and visibility of accounts, billing, and revenue collection can be authorized. Local fire department leadership should not be the sole proprietor and coordination of the third-party billing company. Further, the township board should be provided quarterly records of outstanding insurance bills, and total revenue generated as well as total incidents reported in this program.

The Pennsylvania Fire and Emergency Service Institute provides a sample template of an ordinance with language at [Model Billing Services Ordinance - Pennsylvania Fire & Emergency Services Institute \(pfesi.org\)](http://www.pfesi.org). Emphasis should be given to the adopted fee structure which must also be adopted by local ordinance so that reconstitution of fees is standardized by all allowable agencies and may appear as the sample below:

The charge for all apparatus responding to an incident is as follows. The rates shown below are hourly rates.

- Special Hazards \$500 plus materials
- Aerial Device \$300
- Ambulance (non-transport) \$250
- Heavy Rescue \$300
- Brush Truck \$200
- Command Vehicle \$150
- Ambulance (transport) (3rd party billing)
- Engine Company \$250
- Chemical Truck\* \$300
- Light Rescue \$150
- Tanker \$200
- Haz-mat/Decontamination units w/ prime mover \$300

Personnel costs to include:

- Personnel costs shall be calculated as follows:
    - One and one-half (1 ½) X the Hourly Rate per individual team member
  - If an overtime backfill replacement is required for a team member, there will be a separate charge for the backfill, calculated at:
    - One and one-half (1 ½) X the Hourly Rate of the backfill member
- 
- Personnel costs shall be calculated as follows:
    - One and one-half (1 ½) X the Hourly Rate per individual team member

**Opportunity Statement #6**

**Development of strategic planning committee to drive business management model and planning for future growth of Darby Township Emergency Services. Develop collaboration of stakeholders and perspectives to develop community fire services.**

In the current state, it seems that the department has little time to plan for long-term strategy considerations as it struggles with the day-to-day standardization of operations. Keeping this in mind and understanding that organizational friction was a leading concern, following best practices to create a strategic working group or committee, by referenced ordinance, to make up for long-term planning, provide an open forum for discussion of issues, and clear understanding of directions. Many internal and external stakeholders exist that shape policy decisions for most public departments and this forum would allow for input from many perspectives of the township government and emergency responders to plan for resources, policy needs, and growth to match township needs.

Strategic planning often fails due to obstacles in the following categories, and thus the thoughts must be collected on how to eliminate these hurdles:

- Competing interest of individual fire companies who lack common vision
- Authority to implement at the local government level
- Lack of direct Township oversight and involvement in planning processes
- Inadequate finances to complete objectives in a specific period

The strategic planning committee would be represented by a seven-person party, constituted as follows:

1. Fire Chief of Darby Township #4
2. Fire Chief of the new developed/consolidated organization
3. Township supervisor responsible for public safety oversight
4. Township Business Administrator
5. 1 commerce representative of township in good standing with board
6. Chief of Emergency Medical Service Agency as a liaison representative
7. Second township supervisor/ elected official in good standing

The individuals who serve on this strategic committee have a dedicated job role to move Darby Township Fire and Rescue Services into the next decade of improvement and may be tasked as follows:

- Giving input on issues concerning the development of a project or business
- Providing insight on concerns related to the budget, marketing, hiring, etc.
- Determining what outcomes need to be realized through a project or undertaking

- Prioritizing steps and goals that need to be taken and realized in a project
- Helping develop policies and procedures relevant to a project or business operation
- Projecting potential risks and monitoring and eliminating them as required
- Setting timelines and monitoring progress
- Offering advice on business or project topics on which it has oversight
- Allowing an open forum for discussion of grievances within the organization with lead representative present and aware.

This consortium should be focused on the business management of the department, human resource issues, resource acquisition and allocation, and long-term budget planning to meet the growing needs of Darby Township. The public safety supervisor of the township shall act as the sitting chairperson of this committee. This committee should be placed by voted and accepted ordinance, all records and conversations of this committee are held to open records standards, and thus minutes must be electronically documented in some format. In addition, regularly scheduled meeting dates should be set and accepted by membership. One member of the committee should be selected as a recording secretary of minutes.

All strategic planning for the committee should be based on the following time requirements in determining the depth and breadth of a project:

- |                    |                      |
|--------------------|----------------------|
| <i>Short Term:</i> | <i>1 to 3 years</i>  |
| <i>Mid Term:</i>   | <i>3 to 5 years</i>  |
| <i>Long Range:</i> | <i>5 to 10 years</i> |

Note: Beyond the scope of this plan, the committee should begin to construct a strategic plan for at minimum the 5-year time span, in consideration of a growing township population, and increased costs in all areas of the industry. The creation of a useful strategic plan is a daunting task, should not be rushed to completion, and should be created with inclusion of external stakeholder opinions to match the organization to what the community and business members desire. Many fire departments avoid forecasting the future due to the amount of time investment in planning, however every community is changing, and it is the responsibility of management of emergency services to be ahead of developing issues with the use of strategic planning.

Many sample strategic plan structures can be located by a simple internet search and many appear to complex documents. Regardless, this can be a daunting task and thus the inclusion of the above-mentioned committee.

**Opportunity Statement #7**

**Development of standardized response packages for all incident types across and within Darby Township by participating emergency response organizations.**

It was indicated by verbal interviews with the Chief Officer of the township that responding apparatus typing and numbers were somewhat erratic across the municipality. Given the box assignments of the three departments, each one was slightly different. Many personal opinions were in place on whom should respond versus what is correct for the taxpayer or person having an emergency. Consistent response typing is the hallmark of a professional and dependable fire departments and should be agreed upon by any agency within the township. As referenced earlier, the strategic planning committee would be an excellent platform for contributing parties to adjust and determine what each type of emergency would receive for apparatus with Darby Township.

The use of dispatched emergency medical service units on every fire department response should be prohibited unless injured or needy patients are involved. The local emergency medical service system is already burdened by call volume without the fire department needlessly running units to incidents, which either do not have a relevant patient or will not have any initial needs. No emergency medical unit should be held on an incident if no patient is quickly located or present. Emergency medical response needs should be tied to incidents such as carbon monoxide calls with patients presenting, vehicle accidents of different severities, unusual rescues where a patient may be found or for reported medical assist calls. An emergency medical service unit is not required in any way for utility wires down or a natural gas incident and their use in these instances should be curtailed. Also, it was advised that it is tradition for emergency medical units to respond on every single fire department call out, which is completely unnecessary. Coordination and cooperation with regional emergency medical agencies should be done officially to determine what the definitions of response should be.

Chief officers, assistant chiefs, or acting duty officers should be trained and equipped to arrive and take command of any incident within the township with a consistent arrival plan, regardless of personal local fire response districts, or egos remaining compliant to NFPA 1561 Standard on Emergency Service Incident Management and Command Safety. A consistently trained command officer should be plug and play for any position including incident commander, division officer, chiefs aid, or safety officer as needed. This will be reinforced by township wide operational policies as reflected in the earlier section of this report.

## Potential Alarm Assignments and Units Adopted Township Wide (example):

Still Alarm or Automatic Fire Alarm: 2 Engine Companies, 1 Truck Companies, 1 Officer in Charge (OIC vehicle)

Box Alarm Assignment (structure fire): 4 Engines Companies, 2 Truck Companies, 1 Rescue/Squad company, 2 Officer in charge (OIC vehicle), 1 ALS EMS unit

Extra Alarm Assignment: 2 Engine Companies, 2 Truck Companies, 1 Rescue/Squad Company, 1 additional Officer in charge (OIC vehicle), 1 additional ALS EMS unit

Vehicular fire: 1 Engine Company, 1 Truck company, 1 Officer in charge (OIC vehicle).

Rescue assignment: 1 Engine company, 1 Rescue company and 1 Squad company, upgrade and add on as needed, 1 ALS EMS unit, 1 Officer in charge (OIC vehicle)

Medical Assist: 1 Engine or truck company, 1 ALS or BLS EMS unit

Hazardous Condition (wires, odors): 1 Engine company, 1 Truck Company, 1 Officer in Charge (OIC)

Natural Gas Incident: 2 Engine Companies, 2 Truck Companies, 1 Office in Charge (OIC)

Mass Casualty Response: 3 Engine Companies, 2 Truck Companies, 1 Rescue company, 1 Squad Company, 2 Office in Charge (OIC), 5 EMS units (BLS or ALS), 1 EMS Officer in Charge (OIC)

Building Collapse /Trench Collapse (w/ entrapment): 2 Engine Companies, 2 Truck Companies, 1 Rescue/squad company, 2 Office in Charge (OIC), 2 ALS EMS units.

Specialty Rescue (confined space, rope, machinery entrapment): 2 Truck Companies, 2 Rescue/squad company, 2 officers in charge (OIC), 2 ALS EMS units.

## Study Conclusion

This study began in the spring of 2021 and presented in completion in November of 2021, focuses strongly on realignment to satisfy organizational course corrections.

Most of the issues identified were directly tied back to identification of department leadership, and consistent administrative controls always guided towards a consistent department approach.

After stabilization of the department structures post consolidation, budget needs for the next fiscal period, the next formal organization step should be creation of a 5-year strategic plan, with a goal to allow elected officials of Darby Township to financially plan for the next 5-to-10-year period. Strategic planning should not be entered into lightly and requires mass input from internal and external agents.

It is imperative that the Department Chiefs, other senior department leadership, and the community at large consider and monitor growth of the township and stay ahead of the curve for strategic changes including unrealized costs. The budget must be conscientiously edited to connect emergency response and community planning needs. The volunteer aspect of the department must be consistently tended by a commitment to recruitment and retention of quality personnel who desire to assist within the Township and off set personnel costs where they may.

The challenge of many communities is in what manner to continue to provide for a mounting level of service requirements in the most cost-effective manner possible while determining the fair response resources. As the department refines its model over the next 5-year period, likely it will see an improvement in ISO rating, an improvement in firefighter training and safety, a better relationship with the township government, and a more satisfied citizenry.

The Commonwealth of Pennsylvania fire service is in a state of flux, addressing many issues within volunteerism and growth of career services, facing rising costs at all operational levels. Department leadership must be innovative and creative, finding solutions for development. Internal and external stakeholders, including local government, must communicate and invest time in building relationships for the future of Darby Township fire services.

Elected government officials must plan for future growth and budgetary needs to have a responsive service for the taxpayer as well as a safe environment for emergency responders. Each of the above recommendations will separately impact and improve an element of the fire department both internally and externally, however, are mostly interrelated as increased total performance quality of the fire department.



## Appendix A Potential Replacement Measurement for Fire Apparatus

### Fire Engine Replacement Guidelines *(Source: American Public Works Association Vehicle Replacement Guide)*

Factor	Points		
Age	One point for every year of chronological age, based on in-service date.		
Miles/Hours	One point for each 10,000 miles or 1,000 engine hours of use.		
Type of Service	One, three, or five points are assigned based on the type of service the unit is exposed to. For instance, Front Line Apparatus would be given a five because it is classified as severe duty service. In contrast, an administrative sedan would be given a one.		
Reliability	Points are assigned as one, three, or five depending on the frequency that a vehicle is in the shop for repair. A five would be assigned to a vehicle in the shop two or more times per month on average, while a one would be assigned to a vehicle in the shop an average of once every three months or less.		
M&R Costs	One to five points are assigned based on total life M&R costs (not including repair of accident damage). A five is assigned to a vehicle with life M&R costs equal to or greater than the vehicle's original purchase price, while a one is given to a vehicle with life M&R costs equal to 20 percent or less than its original purchase cost.		
Condition	This category takes into consideration body condition, rust, interior condition, accident history, anticipated repairs, and so on. A scale of one to five points is used with five being poor condition.		
Point Ranges	Fewer than 18 Points	Condition I	Excellent
	18 to 22 points	Condition II	Good
	23 to 27 points	Condition III	Qualifies for replacement
	28 points and above	Condition IV	Needs immediate consideration

### Fleet Replacement Benchmarks

**Purpose:** The Replacement Class System and Replacement Guidelines are used to define practical criteria and guidelines for replacing fleet units and are applied in fleet unit life cycles projection. The replacement guidelines outlined in this policy generally reflect operational, technological, downtime, and financial criteria.

**Life Cycles:** Fleet unit life cycles are based on the best practice method recommended by industry standards. This method involves an internal customer survey and using replacement guidelines set

forth in the vehicle replacement guide in most fleet software programs. The results are compiled, and adjustments are made to consider factors unique to a fleet such as type of use. Once the vehicle has met the replacement criteria, it goes through a review process by the fleet manager/director and the user department to determine if the vehicle should be replaced, retained for limited use, or have its life cycle extended. The overall goal is to replace vehicles at the lowest life cycle cost before the operating cost exceeds vehicle capital.

**Replacement Class System:** The Replacement Classes and Replacement Guidelines are used to categorize the various types of fleet units and their target replacement miles, hours, and age in addition to each unit's operational feasibility while analyzing the most current technology.

### **Consideration for Replacement**

- Units that have met replacement criteria
- Units with replacement deferred from prior years
- Units that have reached maximum points or fleet software replacement program criteria
- Units that have excessive operating cost

**Staff Vehicles** Seven to 10 years or 85,000 to 100,000 miles\*

**Engines/ Aerials** 10 years front-line and three to five years' reserve service\*

**Medic Units** Seven years front-line and three years' reserve service\*

**Type III and Type VI Wildland Units** 20 to 25 years or as needed\*

**Tenders, HazMat, other Specialty Units** as needed\*

### **Excellent Condition**

- Fewer than five years old
- Fewer than 800 engine hours
- Fewer than 25,000 miles if not used in stationary applications
- No known mechanical defects
- Very short downtime and very little operating expense
- Excellent parts availability
- Very good resale value
- Meets all present NFPA 1911 safety standards.

### **Very Good Condition**

- More than five but fewer than 10 years old
- More than 800 but fewer than 1,600 engine hours
- More than 25,000 but fewer than 50,000 miles if not used in stationary applications
- No known mechanical or suspension defects present
- Short downtime and above average operating costs
- Good parts availability
- Good resale value
- Meets NFPA 1911 safety standards

**Good Condition**

- More than 10 years but less than 15 years old
- Some rust or damage to the body or cab
- More than 1,600 but fewer than 2,400 engine hours
- Some existing mechanical or suspension repairs necessary
- Downtime and operational costs are beginning to increase but not terribly above the average
- Parts are still available but getting difficult to find
- Resale value decreasing
- Meets all NFPA 1911 safety standards

**Fair Condition**

- More than 15 but fewer than 20 years old
- Rust, corrosion, or body damage apparent on body or cab
- More than 2,400 engine hours
- More than 75,000 but fewer than 100,000 miles if not used in stationary applications
- Existing mechanical or suspension repairs necessary
- Downtime is increasing, and operational costs are above the historical average
- Parts are becoming harder to find and/or obsolete
- Very little resale value
- Does not meet all NFPA 1911 safety standards

**Poor Condition**

- More than 20 years old
- Rust, corrosion, or damage to the body of cab impacting apparatus use
- More than 2,400 engine hours or 100,000 miles
- Existing mechanical or suspension problems affecting the apparatus operation
- Downtime is exceeding in-service availability
- Operational costs are exceeding the resale value of the apparatus
- Parts are obsolete
- Does not meet all NFPA 1911 safety standards

**Appendix B: Steps to Establishing Mergers/Consolidation Success**  
**Steps to Create a New Merged Partnership**

1. Members of the interested organizations begin **“tailboard” discussions** regarding a possible new partnership to deal with dwindling membership, increasing costs, and higher community expectations.
2. After receiving positive feedback from these informal talks, a **fact-finding committee** is established to gather additional information on the available options. This fact finding should include thorough analysis of all expenses and debts present for the merging organizations.
3. The fact-finding committee reports back with its findings to the respective organizations. If the committee recommends pursuing a partnership and the membership agrees, the companies should take a **vote of confidence** to begin formal discussions.
4. Both companies then need to establish a **steering committee**. The committee should consist of a maximum of three (3) members from each company. Along with the members, each company should appoint a citizen and businessperson from the community. Also, a representative of municipal government should be appointed.
5. After the committee is created, the **first meeting** should be held, and **officers selected**. A chairperson, vice chairperson and secretary are needed. The chairperson should not be an active member on any of the emergency service organizations.
6. At the first meeting, establish a few **rules for conducting the meeting**. This will help you stay focused.
7. The **FIRST GOAL** of the committee is to **review the available partnership options and select a model to use**. Merged organizations, consolidated organizations, alliances, and regional fire districts are all used extensively across the state. You can also create something specific for your needs.
8. The **SECOND GOAL** is to decide on the **administrative structure** for running the new partnership. Do you want to stay with the traditional President, Vice President, and Trustee model? Do you want to create a Board of Directors type of structure? Do you want to create a hybrid model? What corporate structure will be recognized by the Department of State and the Federal Internal Revenue Service for the new agency?
9. Along with the structure, the committee will need to decide on the following **organizational items** at a minimum and create sub-committees to report back:
  - a. Administrative Officers (elected, appointed or both)
  - b. Operational Officers (elected, appointed or both)
  - c. Organizational Chain of Command
  - d. Membership
  - e. By-laws

- f. Financial
  - g. Funding Model
10. Once you've decided on the model and structure, then the committee should make a ***preliminary presentation*** to the members to gain feedback. The feedback can then be used to improve the model and structure. You can also take a simple hand vote to see if members are supportive at this point.
  11. The committee takes any ***feedback*** and improves the model and structure.
  12. Once the model and structure are finalized, the committee makes its ***formal recommendation*** to the memberships of the companies.
  13. The companies then notify the members in accordance with the law to ***formally vote*** on the partnership plan.
  14. Assuming the majority companies approve the plan, the next step is to ***expand the steering committee***.
  15. Add additional members to the committee as needed and ***create sub-committees*** to finalize several parts of the merger plan. They include the following:
    - a. By-law Sub-committee
    - b. Financial and Funding Sub-committee
    - c. Rebranding Sub-committee
  16. Retain an ***attorney and accountant***. These two professionals will be needed to assist with preparing and filing the necessary legal and financial documents.
  17. Establish a ***start date*** for the new partnership.
  18. Submit the ***required documents*** to the County Court of Common Pleas, Pennsylvania Department of State, Pennsylvania Attorney General, and Internal Revenue Service for approval.
  19. Upon the ***new organization*** being created, the company will begin conducting business.
  20. The ***legacy organizations*** will conduct their final meetings to complete any necessary business.
  21. The new partnership should adopt a ***5-year strategic plan*** to set benchmarks and to establish tangible goals.

## Appendix C Training Plan Content

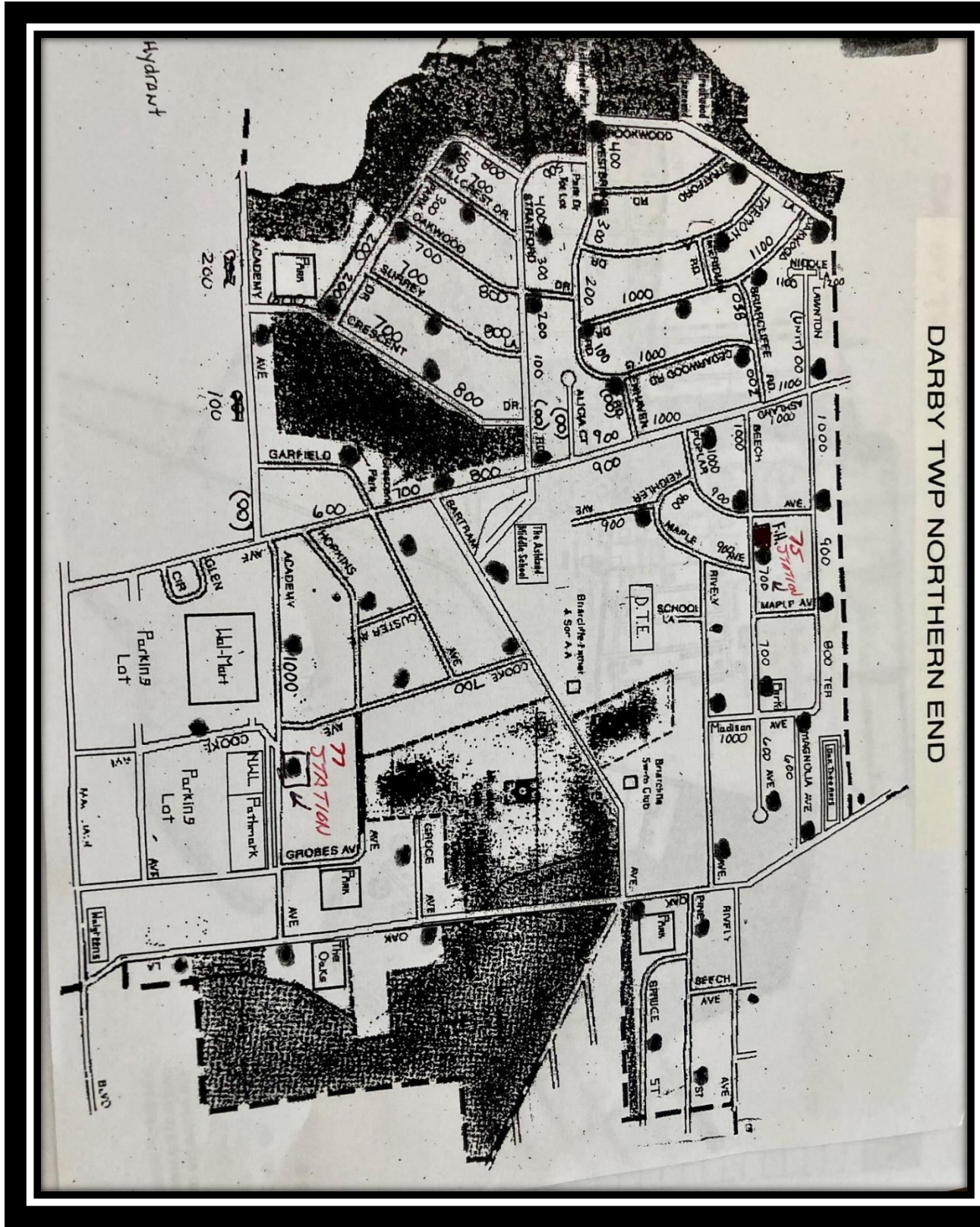
Requirements suggested by NFPA and ISO requirements as minimal investment hours per staff member. Consider use of an annual task book to verify staff are completing training needs.

<b>General Training Type</b>	<b>Required Annual Investment</b>
At facility training including structural burn refreshers	18 hours per year
Company level training/drills	16 hours per month
Fire Officer development training	12 hours per year
Driver Operator training	12 hours per year
Hazardous Material training	8 hours per year
Inspection and Code training	1 session per year no hourly requirement

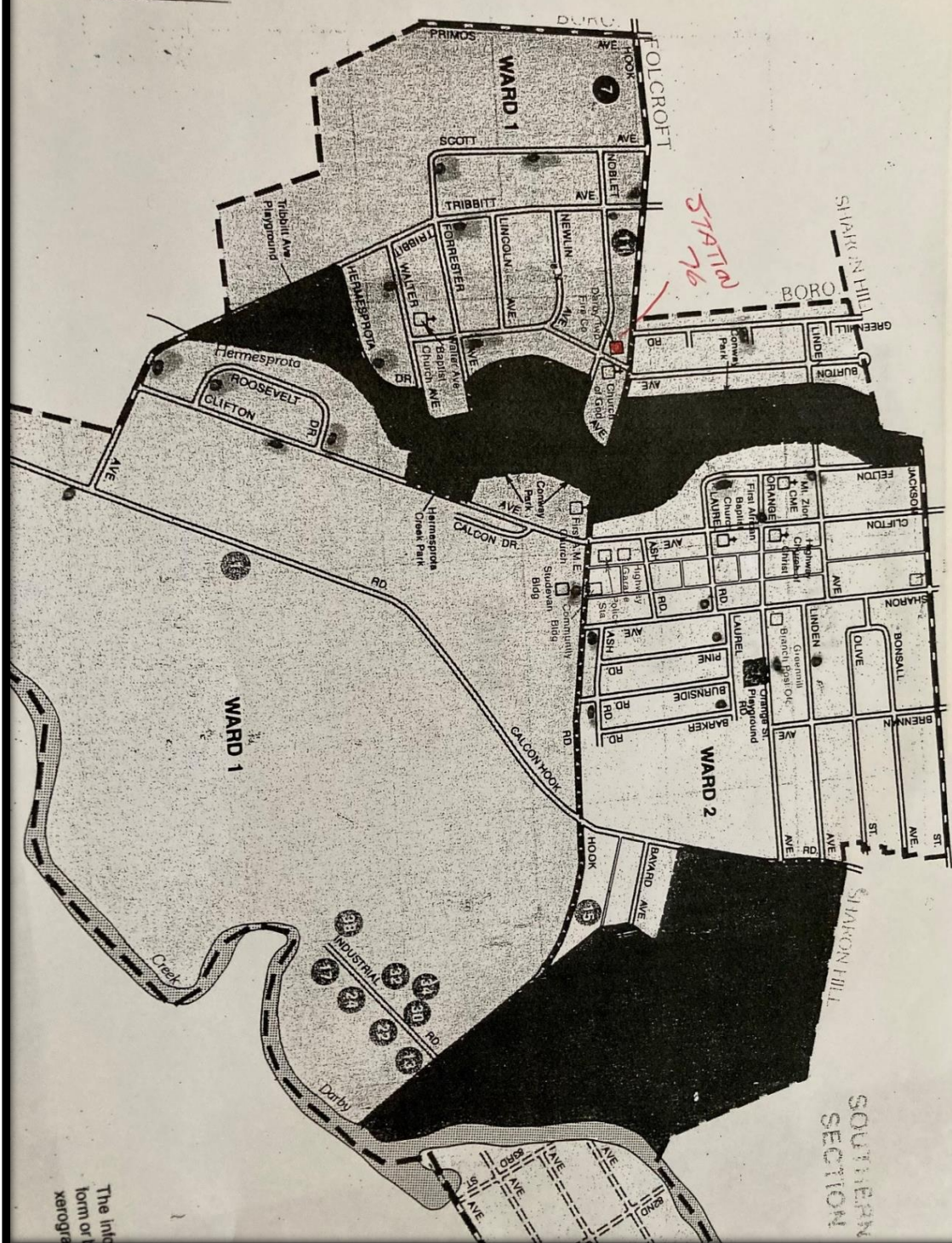
**Each month of the training plan should include:**

- Company level drills to be accomplished in the 30-day period.
- Multi-company level drills to be completed in the 30-day period.
- (This would include 6 basic/core fireground functions each month (ladders, lines, forcible entry, salvage, overhaul, search, communication, etc.)
- Policies to be reviewed in that 30-day period.
- Monthly hazardous material to review (awareness of what is in the community)
- Review of at least one building pre-plan in a 30-day period or walk through.
- Review of one driver operator skill or refreshment on one piece of apparatus in a 30-day period
- Review of an operations or technician level rescue skill within a 30-day period
- (This would be inclusive of water operations, collapse, trench, rope, and confined space)
- Completion of annual live fire refreshment evolutions
- Completion of officer development skill for fire officers in 30-day period
- Consideration of an interdepartmental training event biannually (mutual aid companies)
- Addition of night operations where applicable.
- Review of at minimum one safety bulletin within a 30-day period by all staff
- Refreshment of on fire codes consideration within a 60-day period

DARBY TWP NORTHERN END



DARBY TWP SOUTHERN END



The info  
form or  
xerograp



## References

- Cost Calculator. 2014. Cost Savings Calculator. National Volunteer Fire Council, Washington, DC.
- Insurance Service Office (2014). Fire Suppression Rating Schedule. New York. Insurance Service Office.
- National Fire Protection Association (2018). NFPA 1001. Standard for Fire Fighter Professional Qualification. Quincy, MA.
- National Fire Protection Association (2017). NFPA 1002. Standard for Fire Apparatus Driver/Operator Professional Qualifications. Quincy, MA.
- National Fire Protection Association (2015). NFPA 1021. Standard for Fire Officer Professional Qualifications. Quincy, MA.
- National Fire Protection Association (2015). NFPA 1201 Standard for Providing Fire Protection to the Public. Quincy, MA.
- National Fire Protection Association. (2018). NFPA 1451. Standard for a Fire and Emergency Service Vehicle Operations Training Program. Quincy, MA.
- National Fire Protection Association (2018). NFPA 1500. Standard on Fire Department Occupational Safety, Health, and Wellness Program. Quincy, MA.
- National Fire Protection Association (2020). NFPA 1561. Standard on Emergency Service Incident Management System and Command Safety. Quincy, MA.
- National Fire Protection Association. (2019). NFPA 1582. Standard on Comprehensive Occupational Medical Programs for Fire Departments. Quincy, MA.
- National Fire Protection Association (2014). NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. Quincy, MA.
- National Fire Protection Association (2014). NFPA 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments. Quincy, MA.
- National Fire Protection Association (2016). NFPA 1901 Standard for Automotive Fire Apparatus. Quincy, MA.

National Fire Protection Association (2017). NFPA 1911. Standard for the Inspection, Maintenance, and Retirement of In-Service Automotive Fire Apparatus. Quincy, MA.

Pennsylvania Junior. (2015). Pennsylvania Junior Emergency Service Program Compliance Manual.

Pennsylvania Department of Labor. Harrisburg, Pennsylvania.

Recruitment and Retention. (2007). Retention and Recruitment for the Volunteer Emergency Services. United State Fire Administration. FEMA PDF document

SR6. 2018. Senate Resolution 6 Committee Final Report. Commonwealth of Pennsylvania

Koen, S. 2005. 24/48 vs. 48/96 Work Schedules: A Comparative Analysis. Round the Clock Systems. Suite 209. Portland. ME.

Mcneil, J. 2008. Diversity in the Fire Service: A Problem or a Solution.

Recruitment and Retention. 2007. Recruitment and Retention for the Volunteer Emergency Services. Federal Emergency Management Agency. FA3-10

Safety and Health Considerations. 1997. Safety and Health Considerations for the Design of Fire and Emergency Medical Stations. Federal Emergency Management Agency. FA168.

Vish, J. 2018. Examining the Traditional Work Shift in the Fire Service. University of Cincinnati.

Volunteer Retention. 2020. Volunteer Retention and Recruitment Research Report. National Volunteer Fire Council, Washington. DC.