Cherry Hill Fire District #13

Standard of Cover 2021

CHERRY HILL FIRE DISTRICT #13

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John C. Foley - CFO
Jason Houck Battalion Chief/Accreditation Manager

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COMPONENT A – DESCRIPTION OF COMMUNITY SERVED

CHFD ORGANIZATION

Organized firefighting began on the western edge of Delaware Township in 1905 with the formation of the Church Road and East Merchantville Volunteer Fire Company's. As growth continued to move eastward, the Woodcrest Fire Company was formed in 1916 followed by Woodland in 1923, and Erlton and Ashland in 1927. The last volunteer fire company to organize was Deer Park in 1948.

Ambulance service was provided by the Delaware Township Ambulance Squad in 1947. In 1954, the Ashland Ambulance Squad was organized and began providing ambulance service to the eastern portion of the township.

In the 1950's and early 1960's Fire Districts were established under N.J.S.A Title 40A as taxing authorities in the areas served by the seven (7) volunteer fire companies to provide funding for apparatus, equipment, fire stations and general operation of the volunteer companies.

In 1961 Delaware Township was officially renamed Cherry Hill Township. With this new identity, farmland continued to be developed into commercial properties and residential neighborhoods.

The first paid firefighters began to be hired in the 1960's to provide coverage during the weekdays as call volume began to increase. During the 1980's thirty-two (32) firefighters were hired by the Fire Districts to keep up with the demand for fire protection with the continued population and building growth in the Township.

In 1987 two (2) of the seven (7) Fire Districts merged into one (1) Fire District in the southeastern portion of the Township. The 1990's saw a decline in volunteer firefighters with a continued demand for "calls for service" throughout the Township. With six (6) Fire Districts providing various levels of service, different levels of taxation, and duplication of apparatus and equipment, a movement began in 1992 to consolidate the six (6) Districts into one (1) Fire District for the entire Township.

On July 12, 1993, Cherry Hill Township Council passed Ordinance 93-27 to dissolve the six (6) Districts and create a new single Fire District for Cherry Hill Township. On January 1, 1994, Cherry Hill Fire District 13 (CHFD) was organized.

- 1994 – 2000 – The beginning years were spent developing the organization, and putting the resources in place to make the CHFD what it is today. This was a time of great change and development that was setting the foundation for the future. This included standardizing apparatus, equipment, and training, setting policy and developing operating guidelines. In 1998, the CHFD conducted its first Recruit Firefighter Training Academy that set the benchmark for all firefighters entering the organization from that year forward. The Motor Maintenance Shop moved from an engine bay at Fire Station 2 on Route 70 to a new 2 bay full service apparatus maintenance facility located at 1501 Burnt Mill Road. The Insurance Service Office evaluated the CHFD in 1999 and issued and ISO rating of 2 from the previous ratings of 3, 4, and 5 from the prior Districts.

- 2001 – 2009 – Capital and Operational infrastructure improvements continued during this time period. Fire Station 2 became a capital asset of the Fire District and underwent improvements to make the station conducive to a 24/7 firefighting operation. In addition, the North Kings Highway fire station was constructed to improve resource Deployment Township wide. Two (2) Ladder Trucks were added to the fleet to replace older apparatus that did not meet the service needs of the department. This new apparatus was the start of the department's fleet replacement schedule program that continues today. In 2003, Emergency Medical Services (BLS) was merged from the Township (Police Department) into the Fire Department with an associated operating cost of $2.5M. The department was evaluated a second time by the ISO and maintained the ISO rating of 2 it received in 1999.

- 2010 – Present – Capital Facility improvements at Fire Station's 3, 4, 6 and Central Command was completed in 2010. In collaboration with Township Officials and Cherry Hill Police, the Townships Emergency Operations Center was incorporated into the construction of Fire Headquarters allowing for a state of the art EOC. In December 2014, the departments training academy was approved by NJOEMS as a designated EMT training site to compliment the Division of Fire Safety's Tier 1 firefighting training site (1994). Today's CHFD is a well-trained and efficient "All-Hazards" organization, which includes firefighting, EMS, fire prevention & education, technical rescue and hazmat. Our purpose is to ensure the protection of the citizens and businesses of Cherry Hill. We continue to develop new traditions based on an ever-changing Emergency Services environment.

FIRE DISTRICT AND TOWNSHIP GOVERNMENT

Fire District 13 operates under N.J.S.A. Title 40A. The fire district is governed by five (5) Fire Commissioners (BOFC) who are elected to staggered three (3) year terms. There is a Chairperson, Treasurer, Secretary and two (2) at-large Commissioners. On December 6, 2018, the Board of Fire Commissioners for the Fire District passed a Resolution authorizing to change the annual election to the date of the November General Election.

Cherry Hill Township is operated under a Mayor and Council format. There is a Council President, Vice-President and five (5) at-large council seats. The Mayor and Council are elected to staggered four (4) year terms during general elections in the month of November.

Although separate government entities, both agencies work closely together to ensure that the Mayor (CEO) and his/her staff are informed on Fire and EMS operations.

CHFD FINANCIAL MANAGEMENT

Cherry Hill Fire District 13 (Cherry Hill Fire Department) operates on a calendar year budget cycle; January 1 to December 31. The Office of the Fire Chief and the Chief Financial Officer (CFO) prepare the annual budget with input from Unit Leaders, Battalion Chief's and Station Captains. The budget is presented to the BOFC in December of each year for introduction and approval. The approved budget is submitted to the State Division of Local Government Services (DLGS) for approval. Once approved by the DLGS the BOFC sets a public hearing date in January of each year for public comment. The BOFC will then adopt the budget at the conclusion of the public hearing.

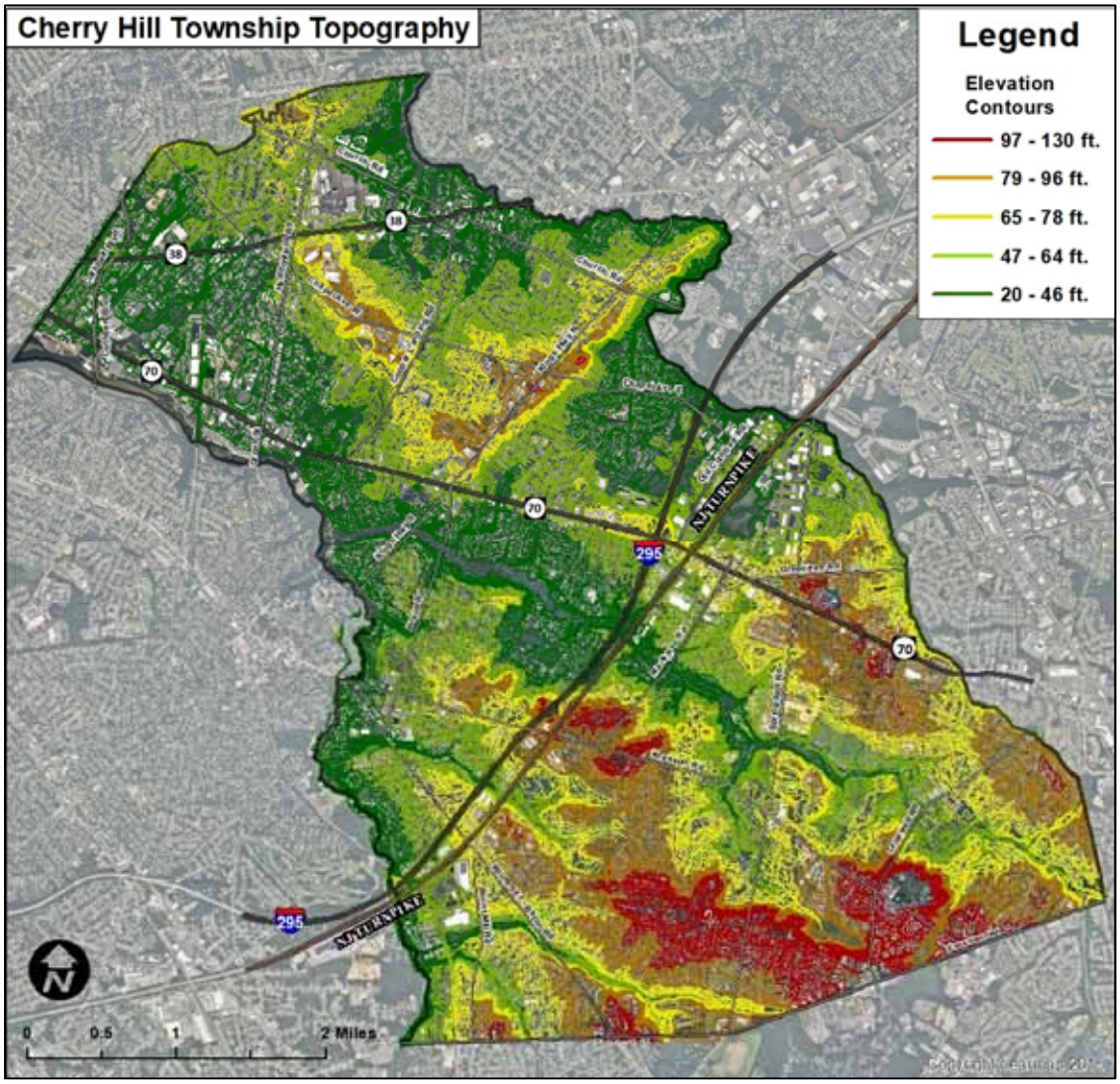
The Cherry Hill Tax Assessor collects the Fire Tax on behalf of the Fire District and disperses quarterly tax payments to the Fire District on April 1st (21.25%), July 1st (22.50%), October 1st (25%) and December 31st (31.25%). The fire tax is the primary revenue funding source for the Fire District (80%) followed by miscellaneous revenue (11%) and reserves (9%). The current bond rating for the Fire District is Aa1. The Fire District uses conservative budgeting techniques such as line item budgeting and multiyear budgeting projections.

CHERRY HILL LOCATION

Cherry Hill Township is located in Camden County New Jersey in the Delaware Valley coastal plain, eight (8) miles southeast of the city of Philadelphia, Pennsylvania. Cherry Hill is the 13th largest municipality in the State and the 2nd largest in Camden County. The total area of the Township is 24.24 square miles of which 24.09 is land and 0.14 is water.

CHERRY HILL TOPOGRAPHY

The land area is generally flat with a slight elevation rise in the southeastern quadrant of the Township and a low-lying area in one (1) residential sub-division that is prone to flooding during severe rainstorms. There are 57 Township public parks in addition to a County Park System that traverses through the community along the Cooper River and its tributaries. There are two (2) golf courses of which one is public and the other private and several parcels of land that have been designated green acre sites. Springdale Farms established in 1949 continues to this day as an active farm within a sprawling “edge city”. Cherry Hill has several State and County roads along many feeder roads that allow for emergency vehicles the egress needed to respond in a timely manner throughout the Township. PATCO and New Jersey Transit operate two (2) passenger rail systems that run through the community; however, there are no grade crossings that would affect emergency vehicle travel.



CLIMATE

The weather a community experiences can have an impact on the fire department's ability to respond. Extreme weather, although rare, does occur in our region. Cherry Hill is considered to have a humid subtropical climate with an average precipitation of 47.2 inches. Winters are categorized as cool/cold and summer as hot and humid. Crippling low temperatures and severe winter storms do occur, however, not for long periods of time. Thunderstorms with strong winds along with significant rain events will happen during the spring, summer and fall months.

Average Annual Temperature and Precipitation

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Average high °F	42	44	53	66	75	85	90	87	80	68	56	47	66
Average low °F	29	31	38	48	57	68	73	71	65	54	43	35	51
Average precipitation (in)	3.5	2.6	4.2	3.9	4.1	4	4.9	5.1	4	3.8	3.4	3.7	47.2"

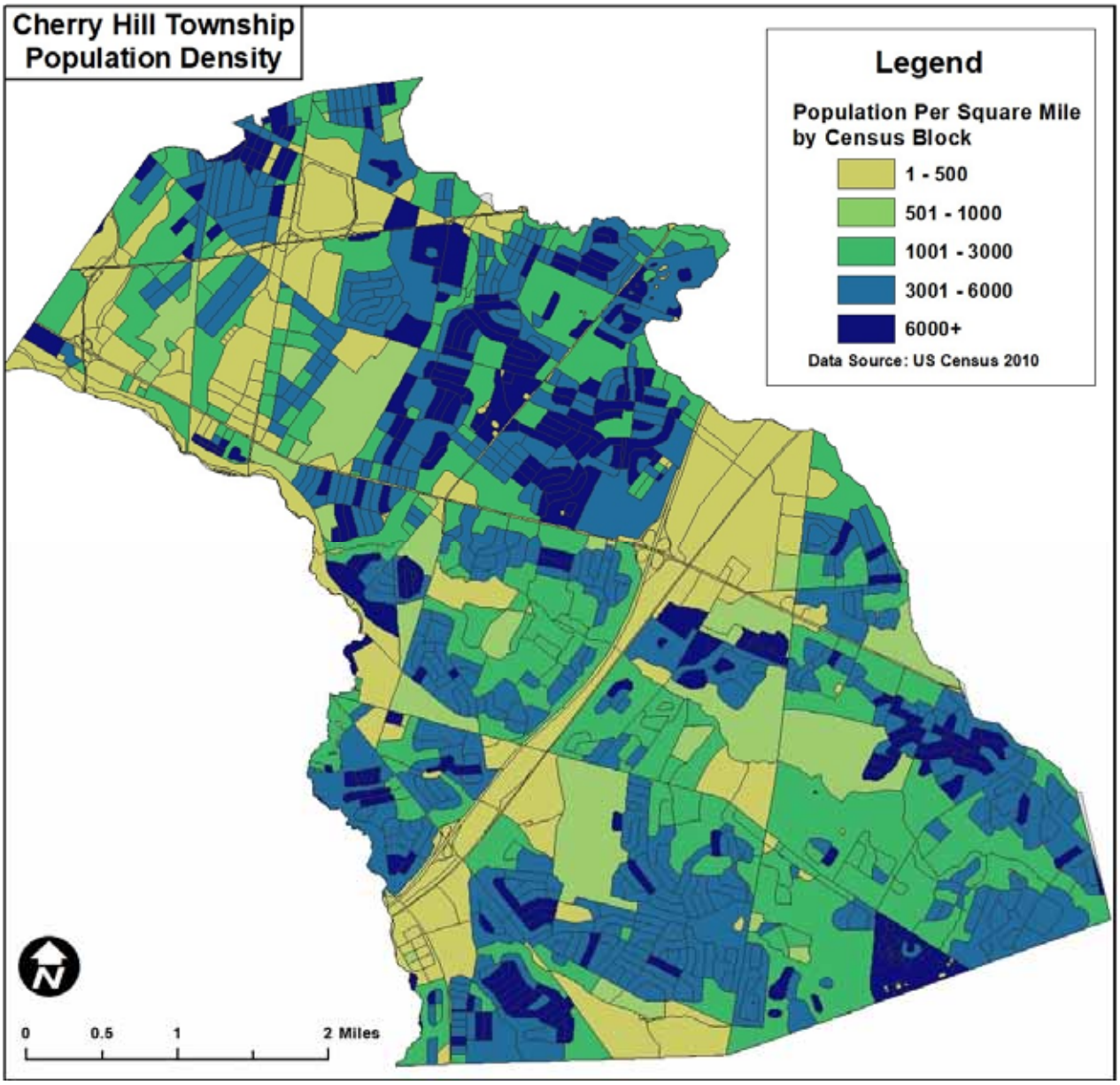
Source: NOAA

The Office of Emergency Management (Police, Fire, DPW, School District, Twp. Officials) utilize the services of Weather Works weather service for the planning of the seasonal changes that occur in the Mid-Atlantic Region and their effect on emergency response. Weather Works prepares an annual winter, summer, and Mid-Atlantic Hurricane Report, which provides insight to potential upcoming climatic changes.

POPULATION

Cherry Hill Township has been described as an “edge city” (5th largest metropolitan statistical area) situated just eight (8) miles east of Philadelphia, PA. The Township is 91% developed with residential and commercial properties.

The current population of Cherry Hill is 71,245, which is based on the 2019 census estimate, compared to 71,045 from the 2010 census. The average population per household is 2.62, median age is 43 and 20% of the population is over 65. The population density is 2,948 people per square mile with 27,074 housing units.



COMPONENT B – REVIEW OF SERVICES PROVIDED

DEPARTMENT OVERVIEW

The Cherry Hill Fire District 13 (CHFD) is an all-hazards, trained Department, responding to fire, medical, hazardous materials, and technical rescue emergencies. All emergency and non-emergency services are developed, maintained, and provided by highly trained career professionals dedicated to excellence. This career staff is supported by two (2) volunteer companies: Rehab 13 and Fire Police who provide valuable support services during emergencies in support of the CHFD. The Cherry Hill Fire Department responds to emergencies from six fire stations, comprised of four engine companies, two ladder companies, and five Basic Life Support transport ambulances. It also has hazardous materials and urban search and rescue teams operating out of two (2) different locations. The CHFD partners' with the Cherry Hill Police Department in staffing and coordinating Emergency Management functions for the Township.

As a public safety provider, the agency is required to operate efficiently at the emergency scene and during normal day-to-day functions. The Department assumes both a scalar and integrated organizational structure to ensure that the organization is in-sync at all times. This format allows us to work creatively with the maximum amount of input and contribution from the members of the organization. The organization is structured into four areas: Functional Area, Unit Commands-Field Forces, Unit Commands-Staff, and Section Managers.

- Functional Area is lead through the Office of the Fire Chief (OFC). This office consists of the Chief of Department (C of D), two (2) Assistant Fire Chiefs (AFC), Director Capital Assets Command/Principal Staff Assistant (DCAC/PSA), and the Executive Administrative Assistant to the Chief of Department (EAA).

  The Chief of Department is responsible to coordinate and carry out all associated activities relating to efficient operation of the Fire Department. The Fire Chief exercises control and direction over business operations and personnel management.

  Assistant Fire Chiefs' exercise control and direction over Fire and EMS field operations in consultation with assigned Battalion Chiefs, Motor Maintenance, Fire Police, ReHab 13 and Camden County Communications Center, Training & Safety Program, Office of Emergency Management, Insurance Service Office, Accreditation, Preplanning and GIS Analyst.
  The Director Capital Assets Command and Principal Staff Assistant is responsible to assist the

Chief of Department and coordinate the various division functions with the Department. The PSA is a member of the Command Staff, represents the Chief of Department and has authority to execute actions as the Department's representative. This position helps to coordinate Department actions with other township departments, outside agencies, and is an advocate on all manners relating to legal defense and litigation. The PSA is the liaison to the Board of Fire Commissioners and maintains control of meeting minutes, agenda and resolutions. The Director of Capital Assets Command exercises executive control and direction for Capital facilities, procurement, inventory, and disposal programs.

The Executive Administrative Assistant to the Chief of Department covers a wide range of administrative duties to provide direct support and assistance in executing the critical workload performed by the Office of the Fire Chief. The EAA serves as a liaison between the Chief of Department and various individuals and organizations, various divisions and groups, state and local organizations, and the general public.

- The Unit Command-Field Forces consist of the Platoon Fire Battalion Chief/Shift Commander, EMS Battalion Chief, Station Commander/Captain, Company Officer/Lieutenant, and EMS Officers (EMSO).

  The Platoon Fire Battalion Chiefs operate in the Field Command Office (FCO). The FCO is staffed with three (3) Battalion Chiefs who are responsible to command three (3) platoons. Their responsibilities include the direct command and leadership of the field firefighting forces during their period of duty. Platoon staffing and command of major emergencies are two of the primary functions of the assigned Fire Battalion Chief.

  The EMS Battalion Chief exercises executive control and direction for pre-hospital medical care and the deployment of system resources. The EMS Battalion Chief evaluates and assesses effectiveness of pre-hospital care operational activities and makes timely adjustments as required. This position is also required to coordinate and ensure compliance with the Medical Director, medical protocol and is a liaison with the Advanced Medical Support provider. The EMS Battalion Chief directs information technology and technical services.

  One Station Commander/Captain is assigned to each fire station within Cherry Hill Township. The Captain is to coordinate management and welfare of the fire station in accordance with Department policy. The Commander must effectively manage a firefighting company on the emergency scene. The Captain must also maintain equipment, schedule tasks, and ensure personnel are adequately trained and equipped under his command.

Two Lieutenants are assigned to each fire station within the Cherry Hill Fire Department. Each Lieutenant manages their designated platoon' company. The Company Officer (CO) provides first line supervision for members assigned under their command. The CO assists the Station Commander in routine duties and responsibilities to ensure effective station management. One of the primary duties of a CO is to effectively train and develop their personnel.

The EMS Officer serves as the field level supervisor over Emergency Medical Services personnel. They are to assist the EMS Battalion in executing his/her duties. The EMSO ensures Quality Assurance by observing patient care, reviewing medical charts, interfacing with field providers, and partnering with outside EMS and hospital agencies. The Medical Officer operates within the Incident Command System during emergency incidents.

- The Unit Commands-Staff consist of Management Support Command, Fire Marshal's Office/Community Education Command (FMO), and Training and Safety Command.

The Management Support Command is responsible for the Department's finance and personnel functions. All matters relating to budget development, audits, program management, benefits, and insurance fall within this supporting function. The Chief Financial Officer (CFO) is required to continuously audit and examine every expenditure and program that is managed within the organization. He/she is responsible to ensure compliance with all federal and state regulations relating to personnel practices, employment, and compensation. The CFO supervises the following direct reports: Purchasing Manager, Payroll Administrator, and Administrative Staff assigned and detailed.

The Fire Marshal's Office/Community Education Command (FMO) is responsible for code enforcement, risk reduction, community education, and fire and explosive investigations. The Chief Fire Marshal serves as the Fire Official for the Township of Cherry Hill. The FMO is responsible to follow-up on problems identified by the field companies while conducting routine emergency responses. The Public Education Officer (PEO) oversees the Department's Community Education program. The PEO has the responsibility to utilize all necessary Department resources to educate and inform the public of methods that will save lives and help improve quality of life.

The Training and Safety Command is responsible to ensure that all personnel are properly trained in accordance with state and federal guidelines. In addition, the training staff is required to see that all members of the organization annually meet the mandated training standards as set forth by the Department. On the emergency scene, the Training Command operates as the Incident Safety Officer in support of the Incident Commander. The Training & Safety Division oversees the Department's safety program in conjunction with the assigned insurance carrier. Throughout the year, the Safety Officer oversees all line of duty injury and exposure reporting as well as documenting a thorough investigation. In addition, the division oversees the Employee Assistance Program.

- The Section Managers consist of Purchasing Manager (PM), Motor Maintenance-Fleet Manager, Facilities and Warehouse Manager (FWM), and GIS Analyst.

  The Purchasing Manager serves as the Qualified Purchasing Agent (QPA). The QPA coordinates, manages and performs procurement functions for the Department by preparing bids and price quotations in accordance with state regulations. In addition, the PM works closely with the CFO on matters relating to budget and purchasing and the Accounts Payable Clerk for bill processing and payment.

  The Motor Maintenance-Fleet Manager is responsible to perform all associated maintenance required for the Department's fire, ambulance and automotive fleet. Recordkeeping is a critical element of the Motor Maintenance Division, in order to effectively document the required maintenance and certification of the vehicles actively assigned within the fleet. Fleet maintenance also entails conducting research to develop new and innovative ways to serve internal and external customers. The critical mission of fleet management is to ensure all vehicles are able to perform 24 hours a day, 365 days a year. The shop must prepare to respond to normal breakdowns, inclement weather, and periods of excessive activities. The Motor Maintenance shop employees respond to major emergencies to serve under the Logistics function within the Incident Command System.

  The Facilities and Warehouse Manager is responsible for planning, budgeting and management of facility maintenance and repair programs. In addition, this position oversees all shipping, receiving and warehouse duties to support the Department's operation. The FWM will coordinate with the Purchasing Manager on specifications, procurement, delivery and inventory of all materials.

  The GIS Analyst provides organization and control of the Department's Geographic Information Systems. The GIS Analyst provides technical support and assistance to the Office of the Chief and

assigned staff by identifying trends, gathering data for field responses, and developing reports based on fire and emergency medical services calls for service. GIS program section manager develops mapping and pre-incident planning documents that are routinely used by field units while responding and controlling emergencies.

SERVICES PROVIDED

The Cherry Hill Fire Department provides a variety of services, including fire suppression, basic level emergency medical service, entrapment extrication, high-angle rescue, trench, confined space, and hazardous materials emergency response. Below is basic information on each of the Department's core services, its general resource capability for that service, and information regarding staff resources for that service.

Confined Space Rescue:

Capability

The Rescue Company is fully equipped with a cache of confined rescue equipment to handle incidents with restricted egress. The confined space rescue equipment carried by the Rescue Company includes tri-pods, supplied air breathing systems, communication capabilities, air monitoring devices, patient removal devices and ropes/rigging equipment. The Rescue Company is supported by the Squad and Ladder Companies for confined space rescue incidents.

Training

All personnel assigned to the Rescue Company are trained to the NFPA Technician level in Confined Space Rescue with members assigned to the Squad and Ladder Companies being trained to the NFPA Operations level in Confined Space Rescue. All Department personnel are trained to the NFPA Awareness level in Confined Space Rescue.

There is a minimum of three (3) Confined Space Rescue Technicians and six (6) Confined Space Rescue Operations personnel on-duty per shift.

Emergency Medical Services

Capability

Emergency Medical Services (EMS) provides state-licensed Basic Life Support (BLS) services and transport in emergency and non-emergency capacity with safe and efficient treatment and patient transportation, regardless of age or other protected status. BLS Unit response is supported by the addition of fire units and the EMS Supervisor when the incident is serious in nature. A minimum of three (3) BLS units and a Supervisor are on duty per shift. Coverage increases to five (5) units during the day to cover hours of increased calls for service.

Training

All uniformed department members are trained at a minimum to the level of Emergency Medical Technician (EMT). Members are also trained in High-Quality CPR, Rescue Task Force Training (RTF), and Stop the Bleeding classes. RTF training includes working with the Cherry Hill Police Department. The EMS Training Division offers Core Classes for recertification, as well as other training opportunities throughout the year pertinent to operations and initiatives.

Hazardous Materials Response

Capability

The Hazardous Materials Unit responds to all chemical and CBRNE incidents. Hazmat 13 is staffed with three (3) Hazardous Materials Specialists and is augmented by other on duty members trained to the Operations, Technician or Specialist Level. The unit is also core members of the Camden County Hazardous Materials Task Force. Hazmat 13 is supported by a cache of specialty tools/equipment, detection equipment and foam firefighting appliances.

Training

The Hazardous Materials Unit's members maintain Hazardous Materials Technician and Specialist Level certifications. Additional training in CBRNE, transportation emergencies, incident management, confined space and flammable liquids firefighting is also maintained. Members receive a combination of in house and third party refresher training each year. All members of the fire department are trained to the Hazardous Materials Awareness and Operations Level. All Hazardous Materials Unit Officers and Command Staff are trained to the On Scene Incident Commander Level.

High-Angle Rescue:

Capability

The Rescue Company is fully equipped with a cache of rope rescue equipment to handle high-angle and low-angle rescue incidents. The Squad Company is equipped with rope rescue equipment to handle low-angle rescue incident. The Ladder Company is equipped to support the operations of the Rescue and Squad Companies.

Training

All personnel assigned to the Rescue and Ladder Companies are trained to the NFPA Technician level in Rope Rescue with members assigned to the Squad Company being trained to the NFPA Operations level in Rope Rescue. All Department personnel are trained to the NFPA Awareness level in Rope Rescue.

There is a minimum of six (6) Rope Rescue Technicians and three (3) Rope Rescue Operations personnel on-duty per shift.

Structural Collapse & Trench Rescue:

Capability

The Urban Search & Rescue (US&R) Company is a nationally typed resource that is equipped with pneumatic struts, shoring lumber, cribbing, rigging, heavy rescue and stabilization equipment to rescue trapped victims from structural collapse incidents and trench rescue emergencies.

Training

The US&R Company is cross-staffed by the members assigned to Rescue Ladder 13. All members assigned to this company are trained to the NFPA Technician level in Structural Collapse & Trench Rescue. These members are trained as Structural Collapse Search Specialists for large-scale building collapses.

There is a minimum of three (3) Structural Collapse/Trench Technicians and Structural Collapse Search Specialists on-duty per shift.

Swiftwater/Flood Rescue:

Capability

There are two (2) nationally credential and equipped Type 4 Swiftwater/Flood Rescue Teams located at the Rescue and Ladder Companies. These teams are equipped with water rescue dry suits, personal floatation devices, ropes/rigging equipment and inflatable boats with motors to respond to water and flood rescue emergencies.

Training

Personnel assigned to the Rescue and Ladder Companies are trained to the NFPA Technician level in Swiftwater/Flood Rescue. These personnel are also trained as Emergency Rescue Boat Operators. All Department personnel are trained to the NFPA Awareness

There is a minimum of six (6) Swiftwater/Flood Rescue Technicians and Emergency Rescue Boat Operators on-duty per shift.

Vehicle Rescue:

Capability

Three (3) Special Operations Companies (Rescue Company, Squad Company and Ladder Company) are equipped and strategically located throughout the town, that are equipped with a full set of hydraulic rescue tools and vehicle stabilization equipment. All engine companies are equipped with some basic stabilization equipment and a combination hydraulic rescue tool.

Training

All personnel are trained to the NFPA Operations level in Vehicle Rescue with the personnel assigned to the Special Operations Companies being trained to the NFPA Technician level in Vehicle Rescue.

ASSETS AND RESOURCES

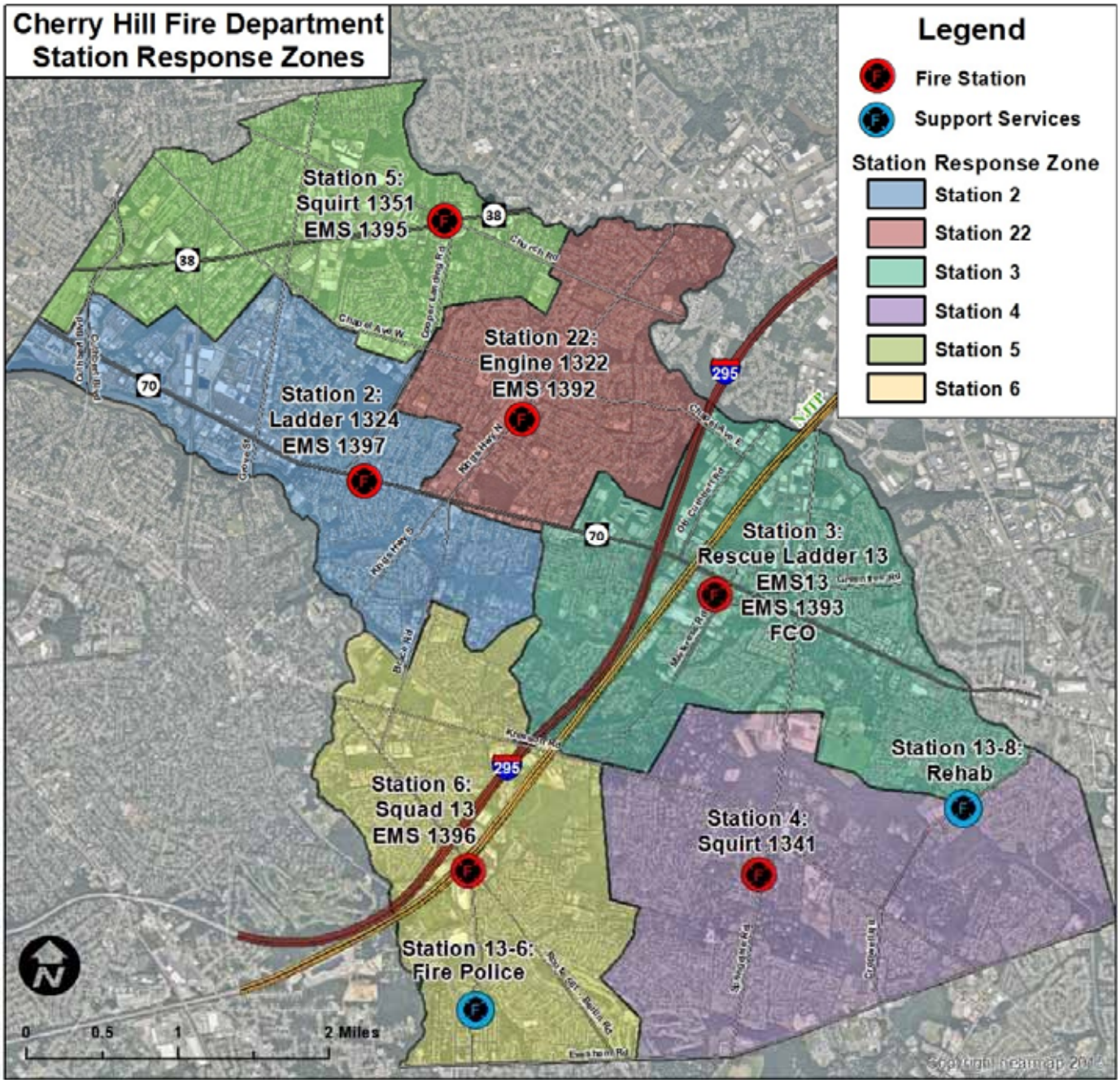
FIRE STATIONS

Fire stations play an integral role in the delivery of emergency services for a number of reasons. A station's location will dictate, to a large degree, response times to emergencies. The Cherry Hill Fire Department maintains six staffed stations 24 hours per day, seven days per week. The stations are adequately equipped with equipment and apparatus to house the Firefighters and EMT's assigned. The CHFD strives to locate stations and apparatus to best serve the community.

STATION LOCATION AND DEPLOYMENT

Cherry Hill Fire Department delivers fire and EMS response from six (6) Fire District fire stations located throughout the township. All six (6) are staffed 24-hours per day by career personnel. The following exhibit represents CHFD stations and locations as well as response locals.

FIGURE: CURRENT FACILITY DEPLOYMENT



STATION 2

Fire Station 2 is located at 805 West Route 70 and houses Ladder 1324 and BLS 1397. As the first-due ladder company on the west side of town, its response local covers such areas as the Executive Campus business complex, Holiday Inn, Crown Plaza Hotel, the recently built and still-developing Garden State Park Development, several mid and high-rise apartment and office buildings, and numerous residential neighborhoods. Ladder 1324 also provides automatic aid to Haddonfield, Pennsauken, Collingswood and mutual aid to Merchantville, Camden and Maple Shade.

STATION 22

Fire Station 22 is located at 951 North Kings Highway and houses Engine 1322, Foam 13 and BLS 1392. This firehouse marked the first newly constructed firehouse in Cherry Hill in nearly 30 years. The site offered a location on the North Kings Highway corridor, long identified as a desirable strategic location for a balanced response across Cherry Hill.

Engine 1322 was established on December 9, 2002, and originally was housed at Fire Station 2 at 805 West Route 70. Station 22's response local consists of residential neighborhoods, but with the Kings Highway corridor, the company also covers mid- to high-rise office buildings, nursing facilities, and schools, places of worships, retail and restaurants. Engine 1322 also provides automatic aid to parts of neighboring Mount Laurel and mutual aid to Maple Shade.

STATION 3

Fire Station 3 is located at 1100 Marlkress Road, just off of Route 70. It adjoins with Fire Headquarters, Field Command Office and houses Rescue Ladder 13, US&R 13, BLS Unit 1393, EMS 13 and Battalion 13. The Department's Training Academy is also located at this facility.

Rescue Ladder 13 and US&R 13 carry an array of equipment designed for all types of rescues: motor vehicle accidents, building collapse, trench and confined-space rescue. Firefighters who work in this station rely on their training to ensure they are proficient with all the additional equipment and are ready for any type of rescue scenario that may come their way.

Battalion 13 is the Shift Commander for the on-duty Platoon. The Shift Commander is responsible for the day-to-day operations of the Fire Department and assumes command of all significant emergencies. EMS 13 handles the day-to-day operations of the emergency medical services.

Rescue Ladder 13 provides automatic aid to Voorhees, Mount Laurel and Evesham Township. US&R 13 provides automatic aid to Camden County as part of the County’s US&R Task Force Alpha response.

The site of Fire Station #3 was the original location of the Deer Park Fire Company. The Fire Company received it charter from the State of New Jersey on August 11, 1948 when the original station was facing Route 70. The new larger more modern facility on Marlkress Road was dedicated in June of 1973. The construction of the new station was necessary due to the increased traffic and

congestion on Route 70. The station was demolished in fall of 2008 in preparation for the current Fire Headquarters.

STATION 4

Fire Station 4 is located at 1000 Springdale Road and houses Squrt 1341. Of all the fire response locals in Cherry Hill, the area that Squrt 1341 covers is mostly residential in nature. Located on Springdale Road, the company covers such neighborhoods as Willowdale, Bunker Hill, Short Hill Farms, Fox Hollow, Chanticleer and the eastern part of Woodcrest. The Station also protects Cherry Hill High School East, the Jewish Community Center, two (2) elementary schools, and several places of worship.

Now known as Fire Station 4, this station was originally Station 9 (Ashland Fire Company #2) built in 1977 to handle increased call volume from the neighborhoods along Springdale and Kresson Roads. Squrt 1341 provides automatic aid to Voorhees Township.

STATION 5

Fire Station 5 is located at 2328 Route 38 and houses Squrt 1351 and BLS 1395. Squrt 1351 covers the northwestern portion of Cherry Hill Township. The company protects the neighborhoods of Cherry Hill Estates, Colwick, Woodland, Columbia Lakes, Kenilworth, and the many mid-rise and high-rise apartment buildings along State Highway Route 38 and Cooper Landing Road. The Cherry Hill Mall, Cherry Hill High School West, Camden Catholic High School, secondary school, elementary schools, houses of worship, restaurants, shopping centers, strip stores, large office buildings and a major manufacturing chemical facility, make up Squrt 1351's response local.

The station location intersects with major thoroughfares such as State Highway Route 38, Haddonfield Rd, Church Rd, Chapel Ave, and Cooper Landing Road. This location enables the unit to quickly respond to their assigned local and incidents on the edge of the township. Squrt 1351 provides automatic aid to Maple Shade, Merchantville and Pennsauken.

Fire Station 5 was originally built in 1926 by both the Church Road Fire Company and Church Road Civic Association. The building, in fact, houses not only the responding fire company, but to this day is adjoined with the Church Road Civic Hall.

STATION 6

Fire Station 6 is located at 1501 Burnt Mill Road and houses Squad 13, Hazmat 13, and BLS 1396. Their response local covers the southeast portion of Cherry Hill, an area of the township that has a high percentage of residential neighborhoods and several condominium and townhome communities. Their first-due response local also includes several schools and a few high-risk businesses due to their size and content.

The Squad Company is an Engine Company that perform some specialty rescue functions in addition to their firefighting duties. They are instrumental in their response to highway incidents along Interstate 295 and the New Jersey Turnpike. Both heavily traveled high-speed roadways required the Squad Company to maintain additional rescue tools and hazardous material mitigation equipment. Hazmat 13 provides automatic aid to Camden County as part of the County's Hazmat Task Force. The Hazmat unit also responds on mutual aid within South Jersey with their technical skills and specialized training.

In 2010, Fire Station 6 underwent renovations to accommodate the growing demands of the station. The original Woodcrest Fire Station stood in what is now the Woodcrest PATCO High-Speed Line parking lot. The building was a converted barn / garage with a gravel driveway entrance along Melrose Ave. The re-location of the station in 1967 to its current location enabled quicker access to two (2) high volume roadways, and moved the station to the other side of the train tracks. This was a major improvement in response time. Fire apparatus no longer had to wait until freight and/or commuter trains passed the intersection during emergency responses.

Squad 13 provides automatic aid to Voorhees, Barrington and Haddonfield. They also provide mutual aid to Lawnside.

APPARATUS

Other than the firefighters assigned to stations, response vehicles are the next most important resource of the emergency response system. The Cherry Hill Fire Department maintains an extensive fleet of apparatus, ambulances, light duty vehicles, reserve vehicles and specialty vehicles to provide services to the community. The following figure lists apparatus assigned to each of the six (6) fire stations. All special operations vehicles are cross-staffed from firefighting personnel assigned to their respective stations.

CHERRY HILL FIRE DEPARTMENT FLEET ASSIGNMENTS					
ASSET #	**YEAR**	**MAKE**	**TYPE**	**ASSIGNMENT**	**APPARATUS/ UNIT #**
AMBULANCES					
1003418	2001	Ford Horton Ambulance	Ambulance	EMS - MM	2
1003419	2003	Ford Horton E-450 Ambulance	Ambulance	EMS	V5
400317	2018	Ford AEV E-450 Ambulance	Ambulance	EMS	V15
400315	2018	Ford AEV E-450 Ambulance	Ambulance	EMS	V16
400309	2018	Ford AEV E-450 Ambulance	Ambulance	EMS	V17
400374	2019	Ford AEV E-450 Ambulance	Ambulance	EMS	V18
400471	2019	Ford AEV E-450 Ambulance	Ambulance	EMS	V19
400506	2020	Ford AEV E-450 Ambulance	Ambulance	EMS	V20
400507	2020	Ford AEV E-450 Ambulance	Ambulance	EMS	V21
FRONT LINE FIRE APPARATUS					
300257	2008	Pierce Ladder	Ladder	Station 3	RL1334
300258	2008	Pierce Pumper	Engine	Station 22	E1322
300259	2008	Pierce Squrt	Squrt	Station 4	SQ1341
300760	2012	Freightliner/Crimson Foam Tender	Foam Tender	Station 22	Foam13
1001541	2008	Pierce Squrt	Squrt	Station 5	SQ1351
400139	2015	Pierce Aerial Ladder	Ladder	Station 2	L1324
400140	2015	Pierce Engine	Engine	Station 6	SD13
RESERVE FIRE APPARATUS					
1000615	2002	Pierce 100 Ft Ladder Truck	R-Ladder	Station 2	L1314
1000857	1997	Seagrave Pumper	R-Engine	Station 5	E1323
1000455	1997	Seagrave Pumper	R-Engine	Station 4	E1363
1000858	1998	Seagrave SVI-Rescue	Rescue	Station 4	R13
1002585	2003	Seagrave Hazmat Pumper	R-Engine	Station 6	E1353
LIGHT DUTY FCO VEHICLES					
400225	2016	Chevrolet Tahoe	Light Truck	FCO	B13
1003921	2003	GMC Yukon XL	Light Truck	FCO	B13R
400273	2017	Chevrolet Tahoe	Light Truck	EMS	EMS13

SPECIAL APPARATUS					
1000622	2003	International 4300 Hazmat Support	Support	Station 6	HM13
1003426	2004	International 4300 Tech. Resc. Sup	Support	Station 3	USAR13
300316	2008	Ford Ranger Supercab Pickup	Light Truck	Station 2	U1326
300121	2007	Chevrolet Suburban LS	Utility Truck	Station 6	U1366
300116	2006	Ford F-450 4 Door Utility PickUp	Light Truck	Station 3	U1336
OFFICE OF FIRE CHIEF					
400470	2019	Chevrolet Tahoe	SUV	OFC-Callan	F1301
400290	2017	Ford Explorer AWD	SUV	OFC-Baum	F1302
1002864	2009	Chevrolet Tahoe	Light Truck	EMS-Milsted	F1304
300322	2009	Ford Crown Victoria	Sedan	OFC-Fiorentini	F1306
300908	2014	Ford Explorer AWD	SUV	FPS Scian	FM131
400291	2017	Ford Explorer AWD	SUV	AFC Houlihan	F1303
LIGHT DUTY STAFF VEHICLES					
1003395	2004	Ford Explorer	Light Truck	RL13 SpecialOPS	P4
1003422	2004	Ford Explorer	Light Truck	SQ13 Special Ops	P3
300326	2008	Ford E-250 Econoline Van	Light Truck	Quartermaster/FP	U1349
300909	2014	Ford Explorer AWD	SUV	FM Cornforth	FM13
400289	2017	Ford F-250 Pickup	Light Truck	MM-Mike	F1309
1000629	2002	Ford Explorer	Light Truck	Motor Maintenance	U1356
1003572	2005	Ford Freestar Van	Light Truck	FMO-(T. DeLucca Old Car)	
300314	2008	Dodge Durango Sports Utility	Light Truck	300314	OOS
1003571	2005	Ford Freestar Van	Light Truck	FMO (Stallfort Old Car)	
400208	2016	Ford F-450 Utility Bed Truck	Light Truck	Motor Maintenance	U1359
400508	2020	Ford Fusion SE AWD	Sedan	FMO-T DeLucca	FM13-2
400509	2020	Ford Fusion SE AWD	Sedan	FMO (Walters)	FM13-4
400510	2020	Ford Fusion SE AWD	Sedan	FMO-Stallfort	FM13-6
400513	2020	Ford Explorer Sedan	Light Truck	Training-Reiss	1307
LIGHT DUTY RESERVE					
1000601	2001	Ford Crown Victoria	Sedan	Pool Vehicle	P1
1000782	1996	Jeep Cherokee 4 x 4	Light Truck	Cherry Hill IT	N/A
300321	2009	Ford Crown Victoria	Sedan	Pool Vehicle	P5
1000602	2001	Ford Crown Victoria	Sedan	Pool Vehicle	P6
FIRE POLICE					
300315	2008	Dodge Durango Sports Utility	Light Truck	Fire Police	FP1366
1000771	1996	Ford E-250 Van	Light Truck	Fire Police	FP1368
1003529	2003	Ford Crown Victoria	Sedan	Fire Police	FP1365
300766	2006	Ford Crown Victoria	Sedan	Fire Police	OOS
300820	2013	Ford E-350 Econoline Van	Van	Fire Police	FP1367
300821	2014	Ford F-350 Dually Pick-up	Truck	Fire Police	FP1369A
400280	2016	Wanco Arrow Board Trailer	Trailer - Arrow Board	Fire Police	N/A
REHAB UNIT					

1000645	2004	Freightliner MT45 Rehab Truck	Support	Rehab Station 8	RH13
300834	2009	Franklin Trailer	Trailer	Rehab Station 8	N/A
300835	2009	Kawasaki Mule	ATV	Rehab Station 8	N/A
1003530	2003	Ford E-350 Econo Van	Van	Rehab Station 8	RH1388
300842	2013	Freightliner Model Mt-55	Support	Rehab Station 8	RH1386
MISCELLANEOUS					
1000385	1989	Wells Cargo Box Trailer	Equip. Trailer	Fire Police	
1003639	1993	Franklin Trailer - Box Trailer	De-Con	Station 3	
300844	1995	Franklin Trailer (Mower)	Mower	Station 6	
300845	1984	Liberty Trailer (Gov't Surplus)	Generator Trailer	Station 6	
300846	1992	Pennstyle Trailer - Box Trailer	Shelter Trailer	EOC/Sta. 3	
300847	2004	Sea Lion Boat Trailer	Boat Trailer	Station 3 - Water Rescue	
300849	2005	John Deere 6 x 4 Utility Vehicle	Gator	Hazmat Sta. 6	
300894	2014	EZ Loader Single Axle Boat Trailer	Boat Trailer	Station 2 - Water Rescue	
300895	2013	Zodiac ERB 400 Boat	Rescue Boat	Station 2 - Water Rescue	
300896		Zodiac Boat Model #0607	Rescue Boat	Station 3 - Water Rescue	OOS
300893	2013	Evinrude E-Tec Outboard Motor	Outboard Motor	Zodiac Boat #300895	Station 2
1000660	2001	Johnson Mod# J25RSID	Outboard Motor	Zodiac Boat #300896	Station 3
400138	2015	CAM Tilt Deck Trailer	Drop Axle Trailer	Station 6 - Hazmat	
1000382		John Deere Tractor		Station 3	
400465		100 Gallon Portable Diesel Fuel Tank	Tank	Station 6 Mounted on MM Shop Service Truck	
400135		Zodiac ERB 380	Rescue Boat	Station 3 - Water Rescue 3	
400511		Echo Shred N Vac Leaf Blower (ES-250)	Blower Vacuum	Station 4	

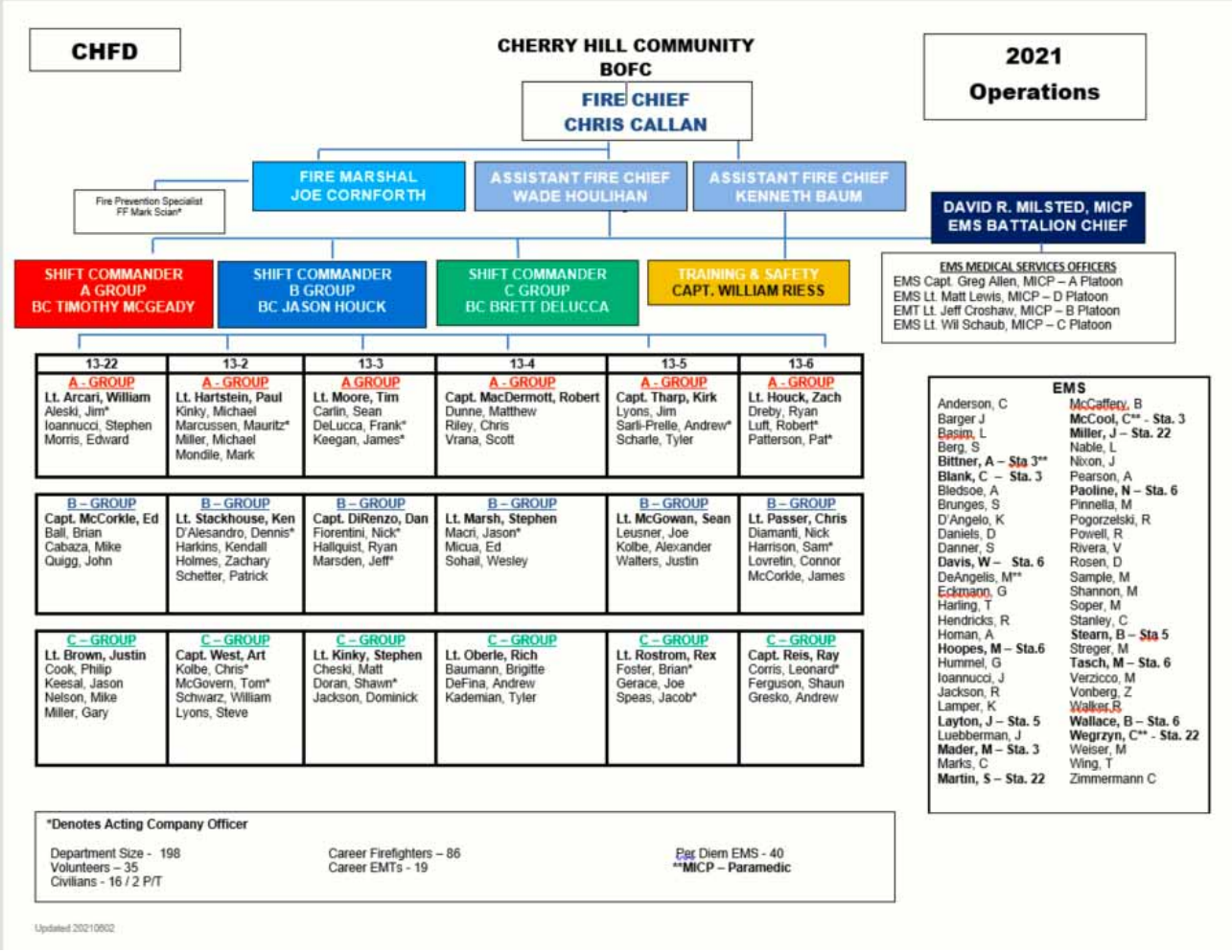
CHFD uses several types of apparatus as shown in the figure above. The department's apparatus are kept in good condition, properly equipped, and well maintained by an internal Motor Maintenance shop that is staffed full time by a supervisor and three (3) Emergency Vehicle Technicians.

STAFFING INFORMATION

Effective fire and emergency service organizations must provide adequate staffing in four key areas: Functional Area, Unit Commands-Field Forces, Unit Commands-Staff, and Section Managers. Key support functions include personnel, training and development, logistics, and records management.

ORGANIZATIONAL STRUCTURE

Cherry Hill Fire Department is organized in the typical top-down hierarchy. The chain of command is identified with common roles for a department of this size. CHFD has six (6) stations that house emergency response resources. The department's administrative office is located at the Fire Headquarters. The department's multiple facilities and its three-shift, 24-hour-per-day, seven-day-per-week operational schedule create numerous internal communications and management challenges. The department's organizational chart is functional and primary roles are well identified.



ADMINISTRATION AND SUPPORT STAFF

One of the primary responsibilities of a department's administration and support staff is to ensure that the organization's operational elements have the ability and means to accomplish their service delivery responsibilities. Without sufficient oversight, planning, documentation, training, and maintenance, the department's operational entities will struggle to perform their duties well. Like any other part of a fire department, administration and support require appropriate resources to function properly.

There are 204 individuals involved in delivering or supporting response services to the Township of Cherry Hill. CHFD uses career and part time staffing to carry out its functions. All administrative and support staff are career personnel. The department's primary management team includes a Fire Chief, two (2) Assistant Chiefs, four (4) Battalion Chiefs, four (4) Medical Service Officers, an Executive Assistant to the Fire Chief, a Chief Fire Marshal, a Chief Financial Officer and three (3) civilian assistants.

MANAGEMENT, ADMINISTRATION, AND SUPPORT PERSONNEL BY POSITION

Position	Number
Fire Chief	1
Assistant Chief	2
Fire Marshal/BC	1
Training Captain	1
Principal Staff Assistant	1
Fire Inspector	3
Executive Assistant	1
Administrative Assistants	3
Chief Financial Officer	1
Civilians	3
Public Education Officer	1
TOTAL	**18**

EMERGENCY SERVICES STAFF

It takes a sufficient number of well-trained emergency responders to put the community's emergency apparatus and equipment to its best use in controlling emergency incidents. The following figure shows emergency personnel by rank.

EMERGENCY RESPONSE PERSONNEL BY RANK

Position	Number
Battalion Chief	4
Fire Captain	6
Fire Lieutenant	12
Firefighter	59
EMT	54
Medical Officer	4
TOTAL	**139**

In addition to the staff officers, the CHFD employs 139 emergency response personnel for emergency medical, rescue, and fire suppression activities. The population of the CHFD service area is 71,045 according to the 2010 census.

Regardless of the raw numbers of personnel available to a department, what matters most is the actual number of emergency responders the agency is able to deliver to an emergency. This usually relates to the actual number of emergency responders available for immediate deployment. CHFD provides no less than 19 firefighter/EMTs, 6 EMTs and a medical services officer on duty staffing fire apparatus and ambulances 24/7.

METHODOLOGY FOR INCIDENT STAFFING

This document will analyze how well CHFD staffs incidents within its primary service area and indicates the effectiveness of the department's staffing efforts.

The fire department is typically acting together with one or more neighboring fire departments in providing fire and life protection through a coordinated regional response system of mutual and automatic aid agreements. This is true for large structure fires, high-risk incidents where staffing needs are high and during periods of high incident activity.

The typical response to a moderate risk reported structure fire in Cherry Hill is three engines, one ladder, one BLS unit, one medical officer and one chief officer. Upon receipt of any additional information or initial arriving units indicating a confirmed structure fire, an additional ladder, additional engine and a designated Rapid Intervention Crew is dispatched. The Office of the Fire Chief (OFC) responds to assist with the Incident Management Team. This assignment may be further enhanced by issuing an All-Hands declaration that automatically initiates the cascade,

rehab unit, and fire police responses.

The typical response to any high-risk occupancy building for a reported structure fire dictates three engines, two ladder, one BLS unit, one medical officer and one chief. Upon receipt of any additional information or initial arriving units indicating a confirmed building fire, an additional ladder, additional engine and a designated Rapid Intervention Crew is dispatched. The OFC responds to assist with the Incident Management Team. This assignment may be further enhanced by issuing an All-Hands declaration that automatically initiates the cascade, rehab unit, and fire police responses.

A report of a fire in a mid-rise or high-rise residential apartment will receive three engines, two ladders, one BLS unit, one medical officer and one chief officer. Upon receipt of any additional information or initial arriving units indicating a confirmed mid-rise or high-rise fire, an additional ladder, additional engine and a designated Rapid Intervention Crew is dispatched. The OFC responds to assist with the Incident Management Team. This assignment may be further enhanced by issuing an All-Hands declaration that automatically initiates the cascade, rehab unit, and fire police responses.

All-Hands incidents necessitate the recall of an off-duty Battalion Chief and Captain. To ensure adequate fire protection while units are controlling the active incident, two stations are covered with mutual aid companies. Additional Off-duty personnel are recalled if an incident becomes a long-term event. When extra alarms are required for escalating incidents, the Camden County Communications will dispatch additional mutual aid units, as dictate by pre-establish Fire Grid Zones.

COMPONENT C – REVIEW OF THE COMMUNITY EXPECTATIONS

The ultimate goal of any emergency service delivery system is to provide sufficient resources (personnel, apparatus, and equipment) to the scene of an emergency in time to take effective action to minimize the impacts of the emergency. This need applies to fires, medical emergencies, and any other emergency situations to which the fire department responds. Obtaining and understanding the desires and expectations of community stakeholders is an important first step. CHFD is committed to incorporating the needs and expectations of residents and policy makers in the service delivery planning process. An extensive stakeholder input process has been developed to prepare for the Strategic Plan and to fulfil the department's mission statement of providing excellence. It is the goal of the Cherry Hill Fire Department to receive timely and accurate input from our customers. This goal is accomplished by interacting with our customers in a positive manner in the station and on the emergency scene. After EMS and Fire units respond and control an incident, the customer is provided with a Customer Care Card that includes the incident number, the responding unit number and date of the incident. In turn, the Company Officer collects the customer's email address. The customer contact information is placed onto a Call for Service Survey Information card and forwarded to the Executive Administrative Assistant of Office of the Fire Chief. The customer receives an email request to complete a Call for Service Survey. The survey consist 15 questions that focus on how well the agency performed and how we can help improve their experience. Upon receiving the completed questionnaire, the Office of the Fire Chief reviews the customer's survey answers to analyze gaps in performance and address the customer's concerns.

Below are the questions provide in the Call for Service Survey:

1. Did you use a cell phone to call for assistance or service?
2. Were CHFD personnel able to assist you with your need?
3. Were CHFD personnel polite and caring?
4. Overall, how professional and caring were CHFD personnel?
5. How knowledgeable were CHFD personnel about your need/situation?
6. Did CHFD personnel provide care/service in a timely manner?
7. Were CHFD personnel able to answer all your questions, or direct you to additional resources?
8. Did CHFD personnel explain what they were doing each step of the way?
9. If you have an issue in the future, would you feel comfortable with the CHFD taking care of you or your family?
10. The CHFD responded for:
11. What was the best part of your experience with the CHFD?

12. What can the CHFD do to improve your experience?
13. Additional comments regarding response, service, or follow-up?
14. Overall, were you satisfied with the services provided?
15. Would you like to receive updates and Safety/Preparedness information from the CHFD?

The answers provided were taken into consideration in the development of this document.

The department also solicited the internal needs and expectations of the members of the department with a SWOT Analysis.

The following department representatives were asked to complete a Strengths, Weakness, Opportunities and Threats (SWOT) Analysis on the organization:

- Office of the Fire Chief: Fire Chief, Assistant Fire Chiefs, Principal Staff Assistant, and Chief Financial Officer
- Field Command Office: Battalion Chiefs and Medical Service Officers
- Training & Safety: Training Captain
- Unit Leaders: Fire Marshal, Motor Maintenance Manager
- Station Captains: 6 Captains
- Labor Presidents: IAFF Locals' 2663 (Firefighters), 3198 (Fire Officers), and 3249 (EMS)

The results of the completed SWOT Analysis were broken down by category. Each of the participants' ideas were included, even if the idea was a stand-alone or duplicate. Below are the results:

- Strengths – 72
- Weaknesses – 80
- Opportunities – 53
- Threats – 58

The Office of the Fire Chief (OFC) was asked to review the collected SWOT Analysis comments and determine the nine (9) areas of each section that they felt should be addressed as part of the strategic planning process. This was accomplished by collecting all department representatives' comments, and ranking the results by recurrence. Therefore, the final SWOT Analysis is an accurate representation of the agency's strengths, weaknesses, opportunities and threats.

Within the strength category, we feel it is important to draw attention to our Special Operations, Training and Fleet Motor Maintenance programs. The Special Operations Command consist of two separate components that include Rescue and Hazardous Material Operations. These units respond to incidents in Cherry Hill Township and to our surrounding communities. The team of highly-trained Rescue responders are credentialed in vehicle extrication, high-angle, confined space, structural collapse, trench rescue, swift-water and flood rescue. The agency's Hazardous Material Team meets the Type 1 FEMA qualifications and are equipped to detect, contain and mitigate hazardous liquid and vapor leaks. In addition, the unit is capable of detecting radiation and containing the spread of contamination. The team works closely with law enforcement to accurately sample, capture, and label hazardous material substances and evidence that may have been involved in a crime.

The department's Training and Safety Division is responsible to ensure that all Cherry Hill Fire Department personnel are properly trained in accordance with all applicable federal, state and Department requirements. The department operates a Level 1 certified Fire Training Academy as well as NJ EMS training site. In addition, the Training and Safety Division staff is responsible to develop and oversee safety related programs and investigate all accidents and injuries. In this capacity, the Training and Safety staff ensures agency-wide compliance to safety standards. These tasks as well as others are achieved through the efforts of the training staff as well as multiple certified fire and EMS instructors and subject matter experts throughout the organization.

The Fleet Motor Maintenance Shop is responsible to maintain and repair all fire department apparatus, ambulances and support vehicles. The shop works from a 64,000 square foot dedicated facility with three certified mechanics and a fleet manager. A verified maintenance program was established by evaluating hours of usage, vehicle mileage, manufacturer and component recommendations. Fire Apparatus are on a twenty (20) year front line service and a ten (10) year reserve service schedule. Three (3) front line engines and one (1) front line ladder are new as of 2008 and one (1) front line engine and one (1) front line ladder are new as of 2015. Seven (7) ambulances are on a four (4) year leasing cycle. All firefighting and emergency medical equipment is evaluated every year for upkeep and replacement.

In any organization, personnel resources and their deployment/use are invaluable to either the success or failure of the organization. CHFD Fire and EMS personnel are prepared and trained for the multi-discipline work they engage in. These men and women have pride in their jobs, accomplishing many tasks outside their normal scope of duties. The Cherry Hill Fire Department has modified their hiring practices over the years to ensure the candidates' chosen meet the department's values statement.

The table below summarizes the results from the SWOT Analysis:

STRENGTHS	WEAKNESSES	OPPORTUNITY	THREATS
Administrative Staff	Staffing	Training Regional Departments	Financial-Budget Approval, Economy, State & Federal Mandates
Special Operations	Planning/Leadership	Grants/Alternative Funding	Regionalization/ Takeover
Dedicated Employees	Training Division Staffing	Regionalization	Pandemic
Training Programs	Officer & Firefighter Development	Building Community Relationships	Political Actions/ Special Interest Groups
Automatic Aid Relationships	Budget Funding	Community Education	Overdevelopment of Township/Taxing Resources
Motor Maintenance	Apparatus Replacement	Automatic Aid Relationships	Terroristic/Active Shooter/Domestic Violent Extremist
Response Plans/Times	Administrative Task	Commercial and Residential Expansion	EMT Per Diem Hiring Staffing/Pay Rates
Accreditation/ Credentialing	Insufficient Administrative Staff	Shared Services	Retirement of Senior Personnel
		Budget Increases	

COMPONENT D – OVERVIEW OF COMMUNITY RISK ASSESSMENT

This section analyzes certain categorical risks that are present within the Township of Cherry Hill that potentially threaten the people and businesses within the community and that can create response workload for CHFD. These risks are identified to assist CHFD in identifying where to locate response resources in the types and numbers needed to effectively respond to likely emergencies.

GENERAL RISK ASSESSMENT

The fire service assesses the relative risk of properties based on a number of factors. Properties with high fire and life risk often require greater numbers of personnel and apparatus to effectively mitigate a fire emergency. Staffing and deployment decisions should be made with consideration of the level of risk within geographic sub-areas of a community.

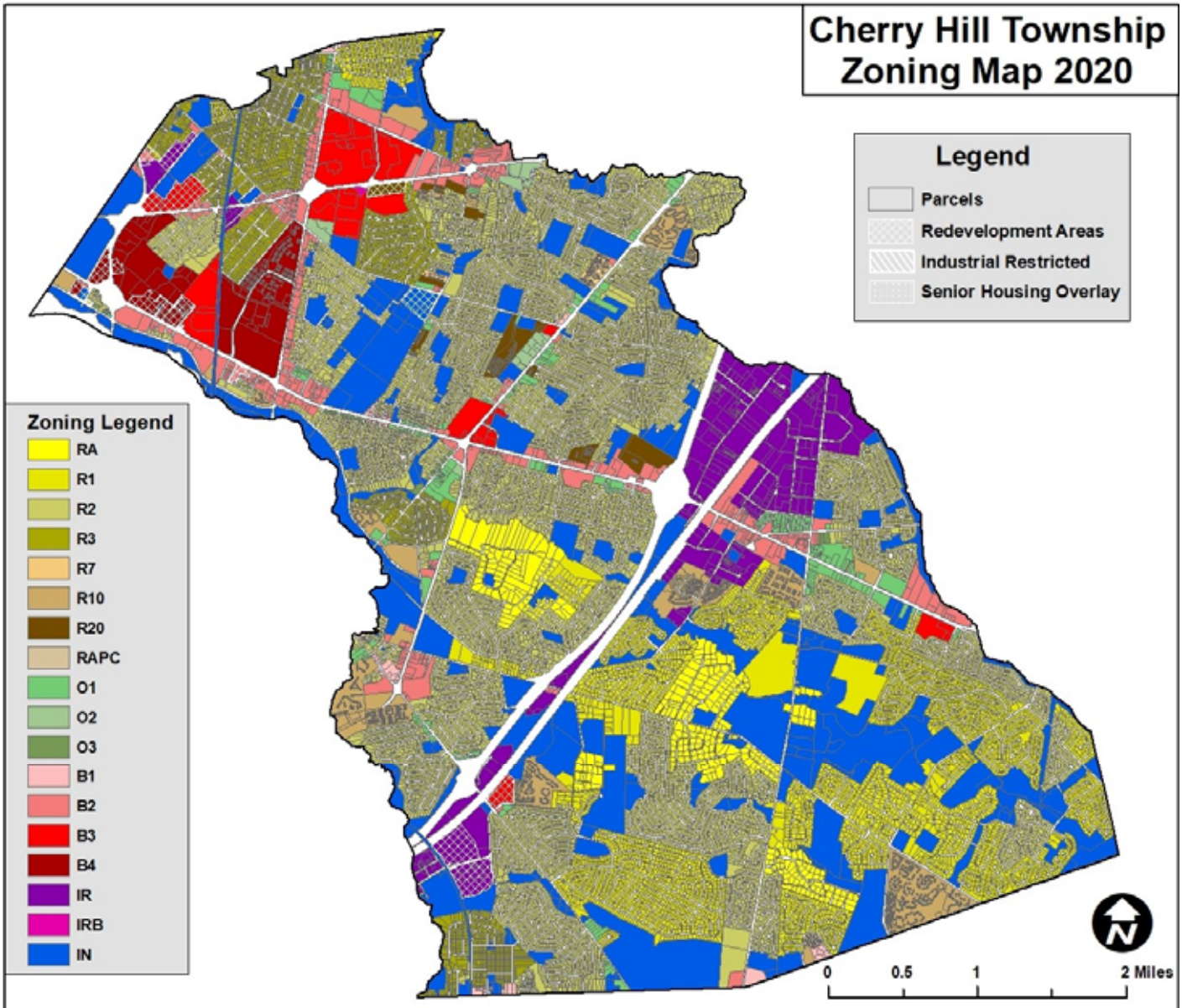
Risk level is defined as follows by the CFAI:

- **Low Risk** – Minor incidents involving small fires such as automobiles, a back yard shed, brush (fire flow less than 250 gallons per minute), a single patient with a non-life threatening medical emergency, minor motor vehicle accidents and small fuel spills.

- **Moderate Risk** – Moderate risk incidents involving fires in single-family dwellings and equivalently sized commercial office properties, larger vehicles (fire flow between 250 gallons per minute to 1,000 gallons per minute), life threatening medical emergencies, hazardous materials emergencies requiring specialized skills and equipment, rescues involving specialized skills and equipment, and medium sized brush fires.

- **High Risk** – High risk incidents involving fires in high rise buildings, nursing homes, larger commercial properties (fire flows more than 1,000 gallons per minute), multiple patient medical incidents, major releases of hazardous materials, high risk rescues such as high angle, trench and confined space, and larger brush fires.

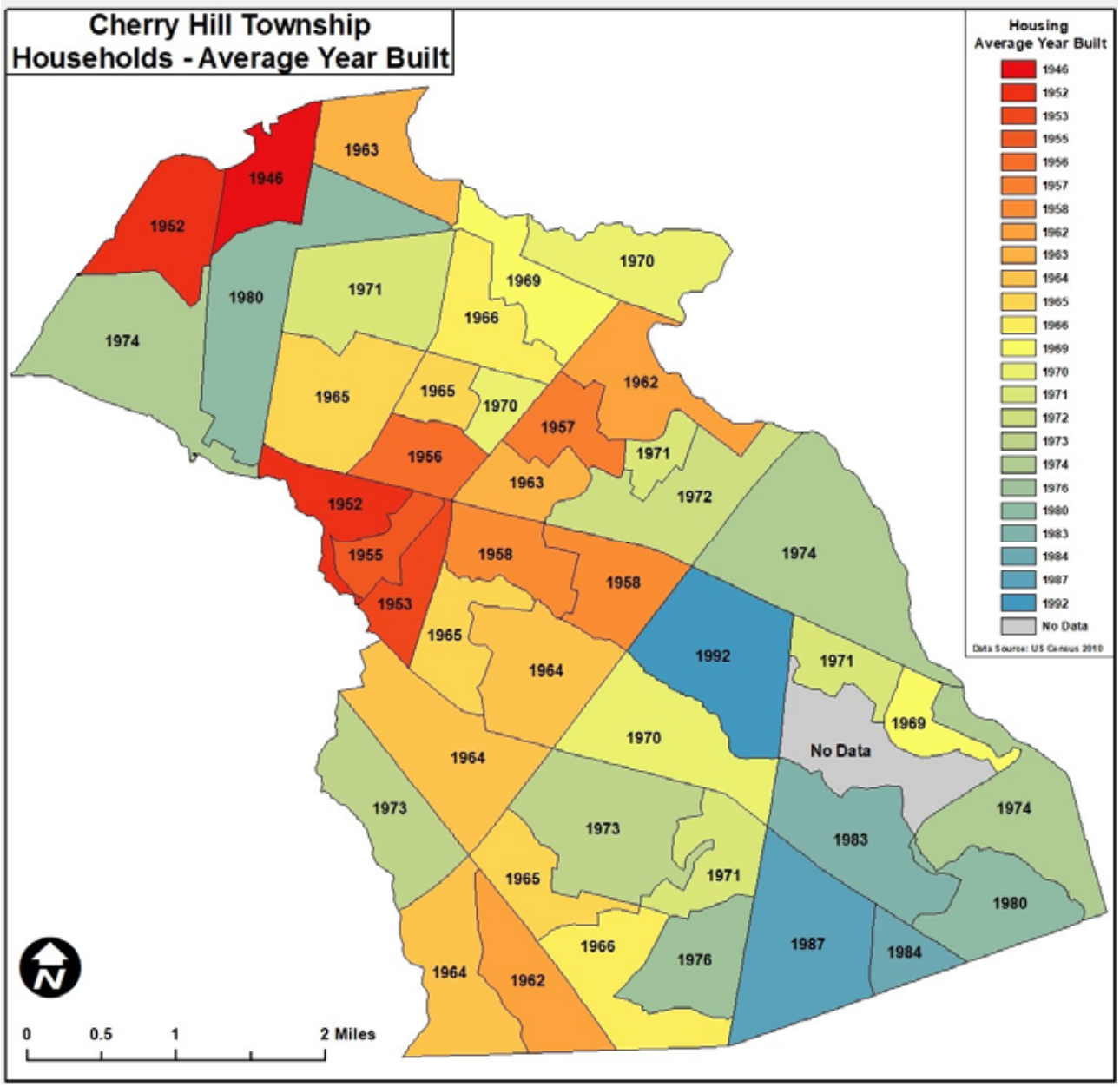
The community's general risk assessment has been developed based on intended land use within the jurisdiction's boundaries. These uses are described on the Township of Cherry Hill zoning map. The following figures translate these land uses to categories of relative fire and life risk.



CODE	TYPE	DEFINITION
RA	Residential Agricultural	1 Acre Lot size
RI	Residential	3 Units Per Acre
R2	Residential	4.5 Units Per Acre
R3	Residential	5.5 Units Per Acre
R7	Residential	7 Units Per Acre
R1O	Residential	10 Units Per Acre
R20	Residential	20 Units Per Acre
RAPC	Residential Agricultural Planned Community	Mixture of Lot Sizes Between R1 and R2
O1	Limited Office	Professional and General Office Space
O2	General Office	Multi-Tenant Office Parks
O3	Restricted Office	Low Intensity Professional Office with Mixed Residential
B1	Neighborhood Business	Personal Services on Neighborhood Scale
B2	Highway Business	Auto-Oriented Retail Development
B3	Shopping Center Business	Multiple Retailer Development
B4	Regional Business	Mixed Use Development
IR	Industrial Restricted	Light Manufacturing/Office
IRB	Industrial Restricted Business Overlay	Encourages Redevelopment of Under-Utilized Industrial and Shopping Center Uses
IN	Institutional	Government, Religious and Educational Institutions

AGE OF HOUSING STOCK

Below is a map showing the average age of residential dwellings by census tract. The west battalion serves a community of predominantly small to medium size single-family home subdivisions that were built prior to 1970. The east side of town saw rapid development in the 1970's and 1980's, consisting of medium to large single family homes in subdivisions that were previously farmland. As a result, Cherry Hill Township has an older side of town and newer side of town that differ in both housing age and size of structure.



GEOGRAPHIC AND WEATHER-RELATED RISKS

The weather a community experiences can impact the fire department's ability to respond. Snow, ice, and other conditions can slow response. Major storms can create emergency situations that can overwhelm local emergency response forces.

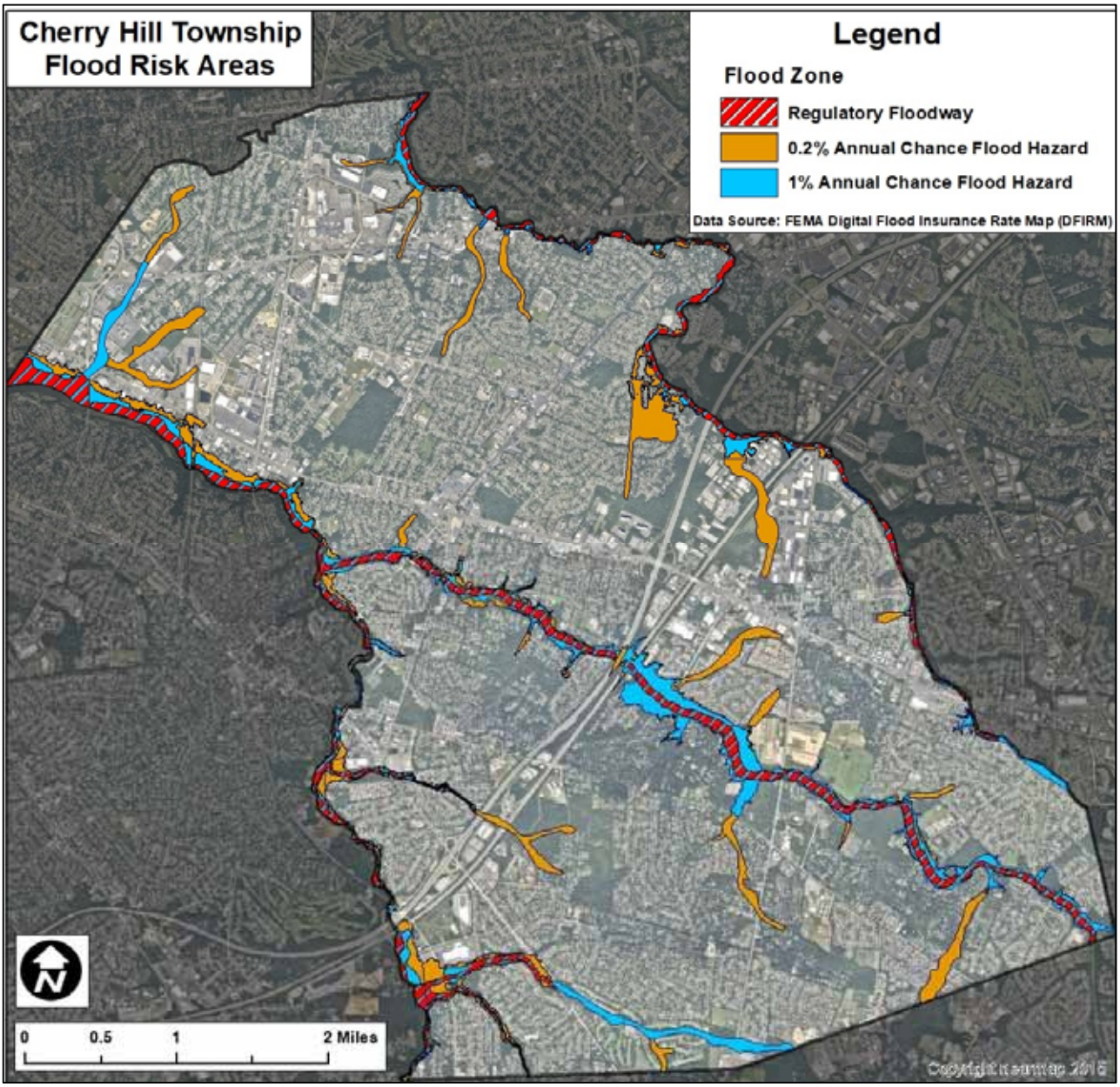
Extreme weather, though rare, does occur. Thunderstorms, strong windstorms, and significant rain events happen frequently in the summer months. Short term flooding can occur and is recognized by flood plain maps and 100-year storm maps. Snowfall is experienced annually, but typical not in amounts more than a few inches at a time. Crippling low temperatures and severe winter storms do occur, however, infrequently. Cherry Hill has a humid subtropical climate, with cool to cold winters and hot, humid summers.

Weather-Related Risks

Risk	Frequency
Tornadoes	Low
Flooding	Low
Snow/Blizzard Conditions	Moderate/High
Freezing Temperatures	Moderate/High
Heat/Humidity	Moderate/High
Thunderstorms	Moderate
Tropical Systems	Low/Moderate
Earthquake	Low

Severe Weather-Related Incidents

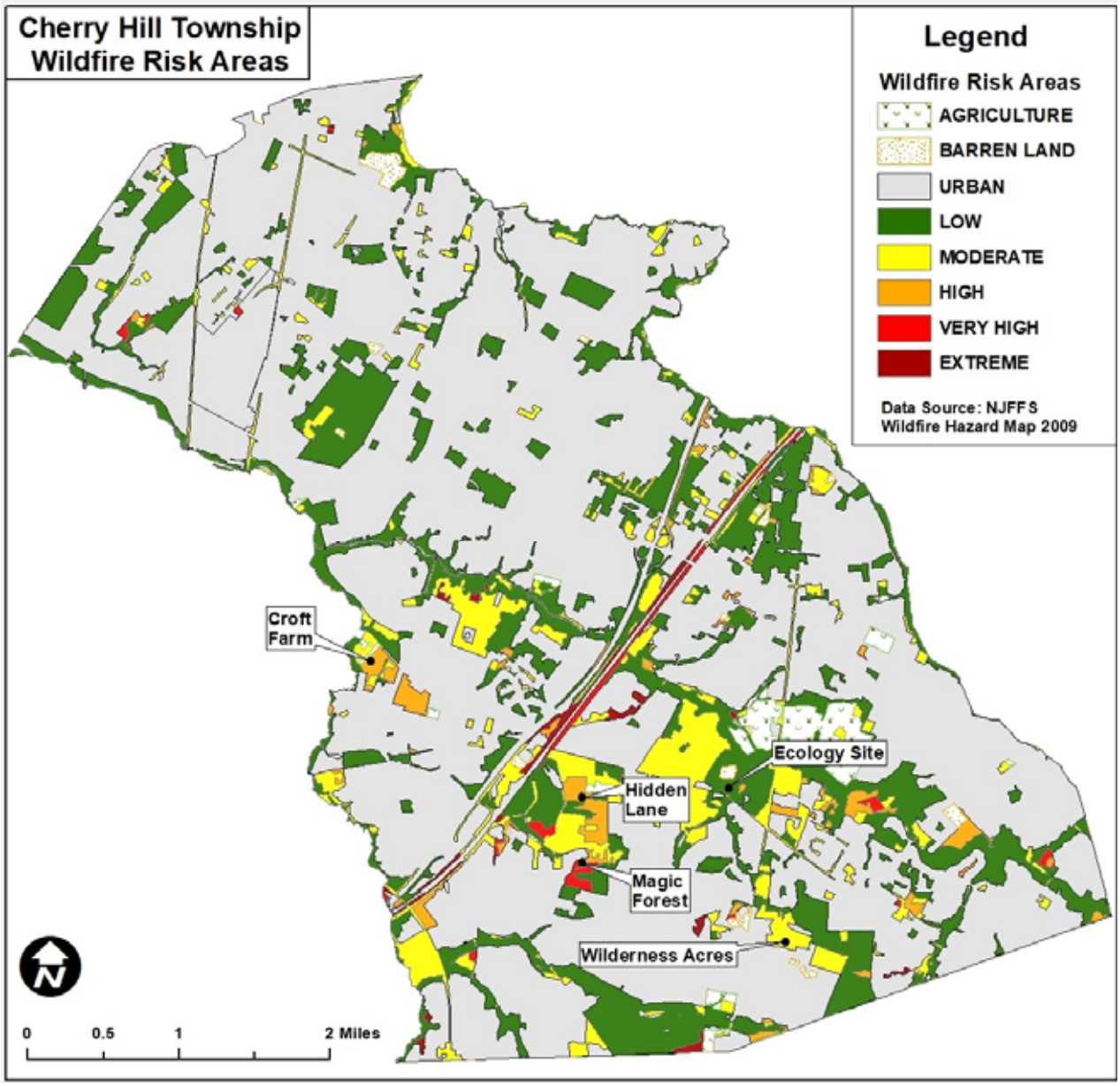
Severe Weather Incidents by Year	2016	2017	2018	2019	2020	5 yr Total	Incidents per year
800 Severe weather or natural disaster, other	4	1	15	6	0	26	5.2
812 Flood assessment	0	0	1	1	0	2	0.4
813 Wind storm, tornado/hurricane assessment	10	9	0	18	50	87	17.4
814 Lightning strike (no fire)	0	1	0	2	1	4	0.8
815 Severe weather or natural disaster standby	0	0	0	0	1	1	0.2
Total	**14**	**11**	**16**	**27**	**52**	**120**	**24**
444 Power line down	188	154	190	202	180	914	182.8



WILDFIRE ASSESSMENT

Cherry Hill's climate, vegetation, topography, and the extent to which the community has developed makes wildland fire a low risk to most of the community. Brush fires occur primarily in parkland or vacant lots. However, there are several areas within the Township that particular attention is made where wooded areas border developed parcels of land. The Magic Forrest has several acres of wooded area and heavy brush that sit between residential properties on North Woodleigh Drive and Bob White Drive. Wilderness Acres is a residential neighborhood in a heavily wooded

environment. The road system in this area has been rebuilt with public water mains and fire hydrants added to the area over the last fifteen (15) + years. The Township's ecology site at Kresson and Springdale Roads is deep seeded in several acres of woods and brush. Residential properties back up to the complex along Imperial Drive. The Croft Farm sits on several acres of woods and parkland and houses several out buildings for Township Sponsored events. This parcel of land abuts residential and commercial properties on Elmhurst Road and Kresson Road and the proposed Evans Mill project. Hidden Lane is a private road off of Kresson Road, which has several residential properties along it. There are several acres of woods and heavy brush that intertwine this area from Browning Lane to Starling Lane. Cherry Hill Fire Department engine companies would be in a position to address small to medium perimeter brush fires in these areas from the road network, however mutual aid service from the New Jersey Forestry Service and surrounding fire department's with brush fire trucks would be needed on larger or deep seeded fires to compliment Cherry Hill Fire Department resources.



GEOGRAPHIC/GEOLOGICAL RISK

Certain geographic and geologic risks create situations that threaten the community, or are physical barriers to street connectivity for emergency service response. There is an extremely low risk of geologic activity in southern NJ. When it has happened in the past, geologic activity has not been damaging in Cherry Hill.

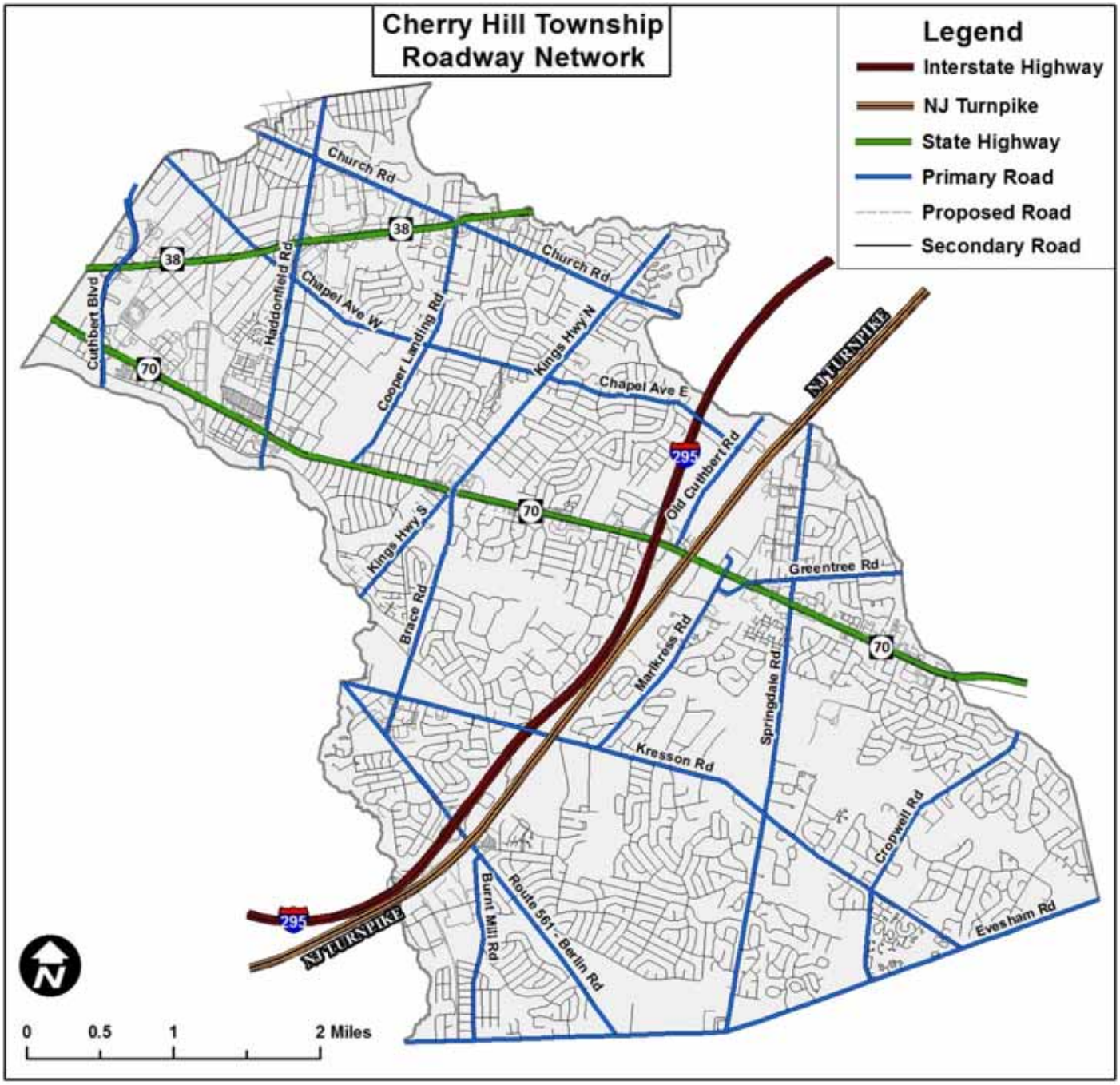
TRANSPORTATION RISKS

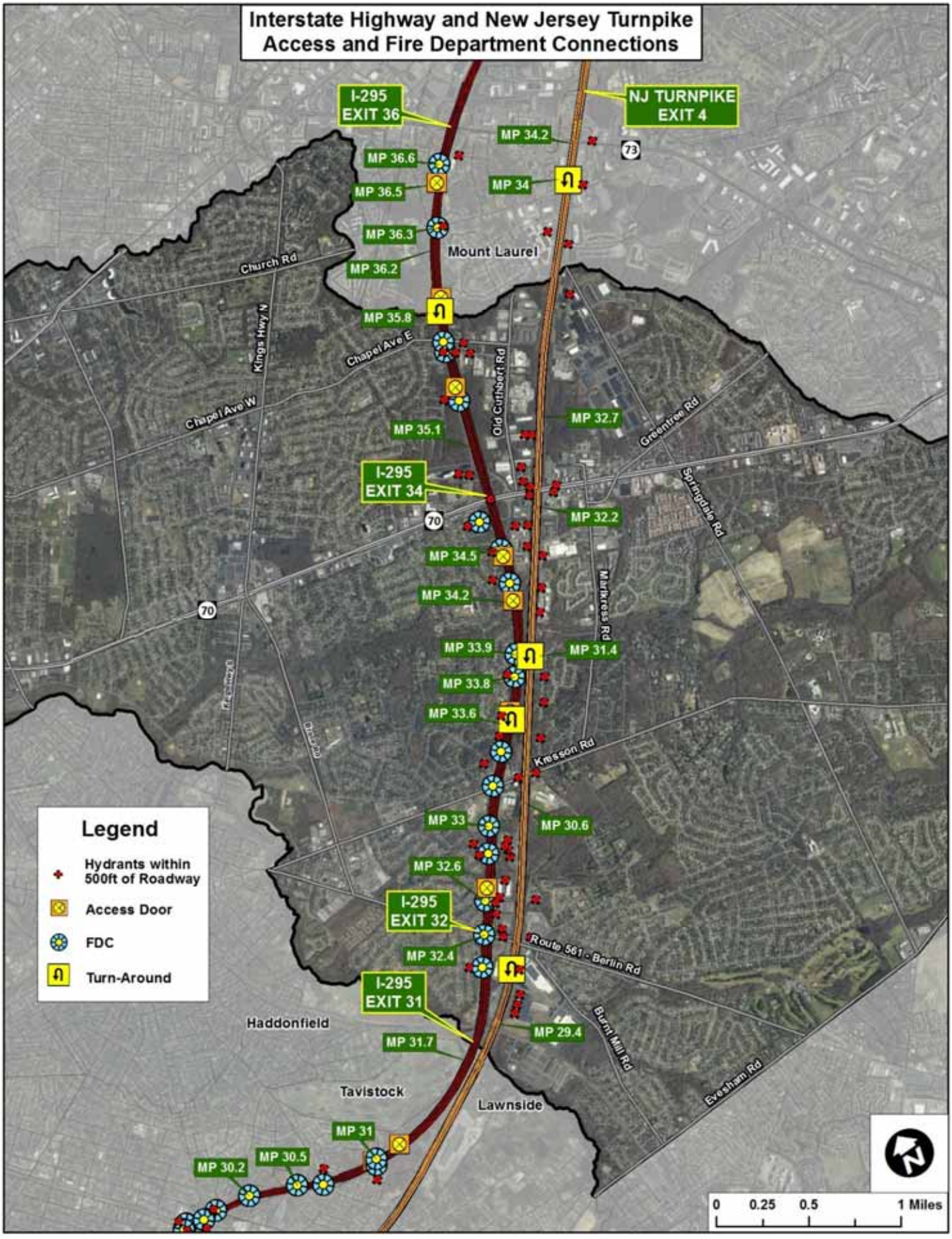
Transportation corridors provide necessary access and egress for the area. These take the form of roads, limited access highways and railways. The configuration of transportation systems can also affect the response capability of emergency services. As of May 2010, the township had a total of 309.36 miles (497.87 km) of roadways, of which 246.81 miles (397.20 km) were maintained by the municipality, 40.41 miles (65.03 km) by Camden County and 17.91 miles (28.82 km) by the New Jersey Department of Transportation and 4.23 miles (6.81 km) by the New Jersey Turnpike Authority.

ROADS

The Township is bisected by Interstate 295 and the NJ Turnpike. This bisection effectively separates the township into two (2) response battalions, east and west. The NJ Turnpike does not have an entrance or exit that leads directly to the township. There is, however, a service road that allows for southbound response onto the limited access road, down to the next exit. Interstate 295 is also a limited access road that bisects the township nearly parallel to the NJ Turnpike. There are three (3) entrances and exits onto 295 available for emergency response vehicles and the general public. Both highways are north and southbound only. There are limited if any crossovers until the next exit. The townships street system is sufficiently gridded for the major roads in the town; however, the secondary roads are often winding neighborhood and development pathways. The following map page illustrates the North – South Limited access highways as they bisect Cherry Hill.

Some traffic signals along the major roadways within the service area are equipped with signal pre-emption equipment. This provides a response time performance advantage as well as improved safety to motorists.


Cherry Hill Township
Roadway Network
Legend
Interstate Highway
NJ Turnpike
State Highway
Primary Road
Proposed Road
Secondary Road
Church Rd
Church Rd
38
38
Haddonfield Rd
Chapel Ave W
Cooper Landing Rd
Kings Hwy N
Chapel Ave E
Cuthbert Blvd
70
70
Kings Hwy S
Brace Rd
Old Cuthbert Rd
295
NJ TURNPIKE
Greentree Rd
70
Marlkress Rd
Springdale Rd
Kresson Rd
Cropwell Rd
Evesham Rd
Burnt Mill Rd
Route 561 - Berlin Rd
295
NJ TURNPIKE
N
0
0.5
1
2 Miles

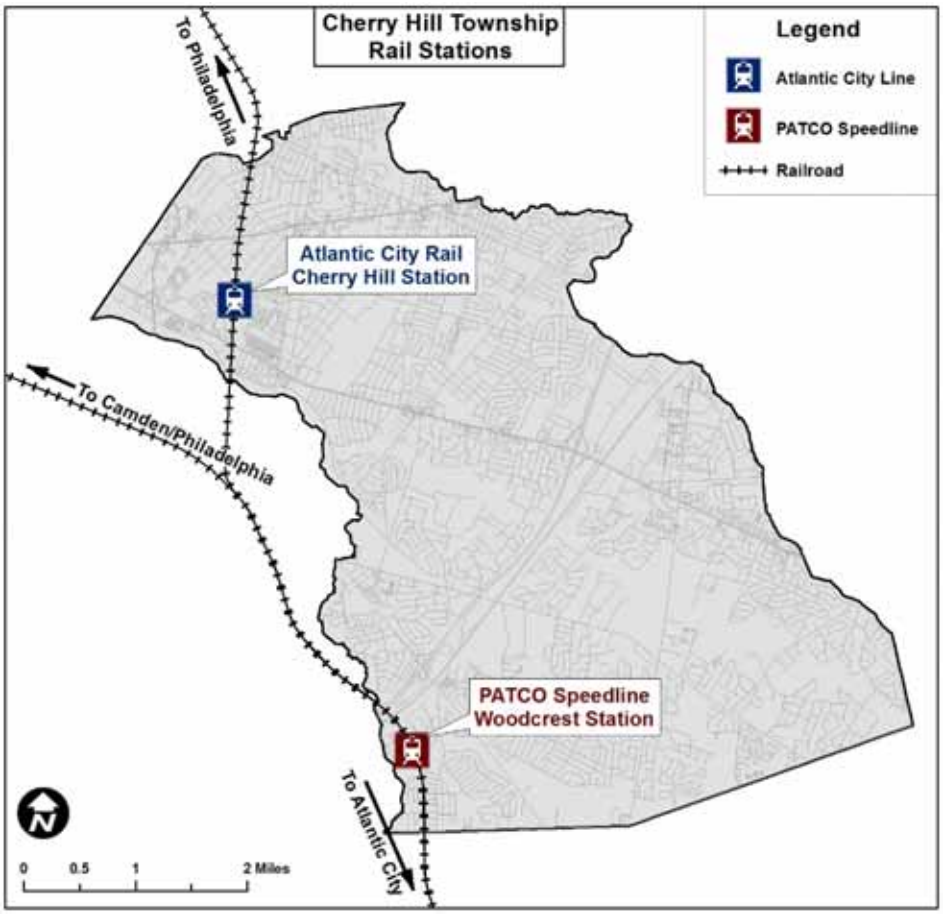

Interstate Highway and New Jersey Turnpike
Access and Fire Department Connections
I-295
EXIT 36
NJ TURNPIKE
EXIT 4
MP 34.2
MP 36.6
MP 34
MP 36.5
MP 36.3
Mount Laurel
MP 36.2
Church Rd
Kings Hwy N
MP 35.8
Chapel Ave E
Old Cuthbert Rd
Chapel Ave W
MP 32.7
Greentree Rd
MP 35.1
I-295
EXIT 34
Springdale Rd
MP 32.2
MP 34.5
Marlkress Rd
MP 34.2
MP 33.9
MP 31.4
MP 33.8
MP 33.6
Kresson Rd
MP 33
MP 30.6
MP 32.6
I-295
EXIT 32
Route 561 - Berlin Rd
MP 32.4
I-295
EXIT 31
Haddonfield
MP 29.4
Burnt Mill Rd
MP 31.7
Evesham Rd
Tavistock
Lawnside
MP 31
MP 30.5
MP 30.2
Legend
Hydrants within 500ft of Roadway
Access Door
FDC
Turn-Around
0 0.25 0.5 1 Miles

RAILROADS

Cherry Hill has two (2) passenger railways that stop and pass through the township. New Jersey Transit is New Jersey's Public Transportation Corporation who operates a high-speed train that travels between Philadelphia and Atlantic City that passes through and has a rail station in Cherry Hill. In addition, the Delaware River Port Authority operates the PATCO light rail transportation system that carries approximately 58% of the commuters from southern New Jersey into the City of Philadelphia and also passes through and has a rail station in Cherry Hill.

Since March 2011, the New Jersey Passenger Rail Security EMS Plan has provided statewide guidance for first responders/EMS, identifying the objectives and critical actions that should be met within the first minutes of a response involving any component of the passenger rail system. Cherry Hill Fire Department participated as a contributing author in the development of the standardized response document, which is recognized as the largest EMS planning project in New Jersey's history.

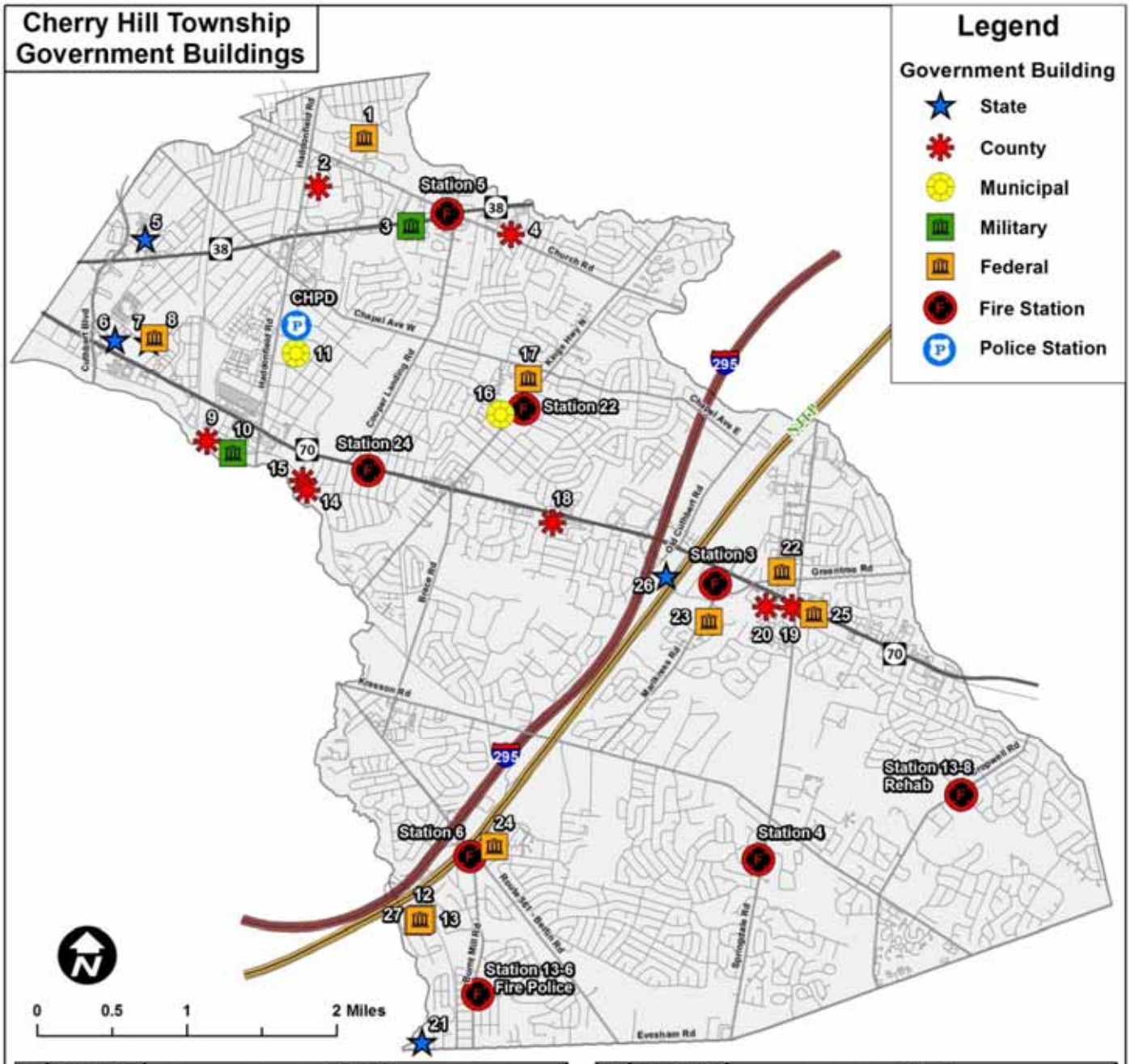
Neither of these railways have a grade level crossing that would create traffic hazards or response delays in Cherry Hill.



BUILDING ASSETS PROTECTED

GOVERNMENT BUILDINGS

There are a variety of government buildings in Cherry Hill considered important to providing critical services to the community in times of disaster. Buildings such as the municipal building, police and fire stations, and other township facilities provide important services to the community. The following figure shows the locations of the important government buildings.

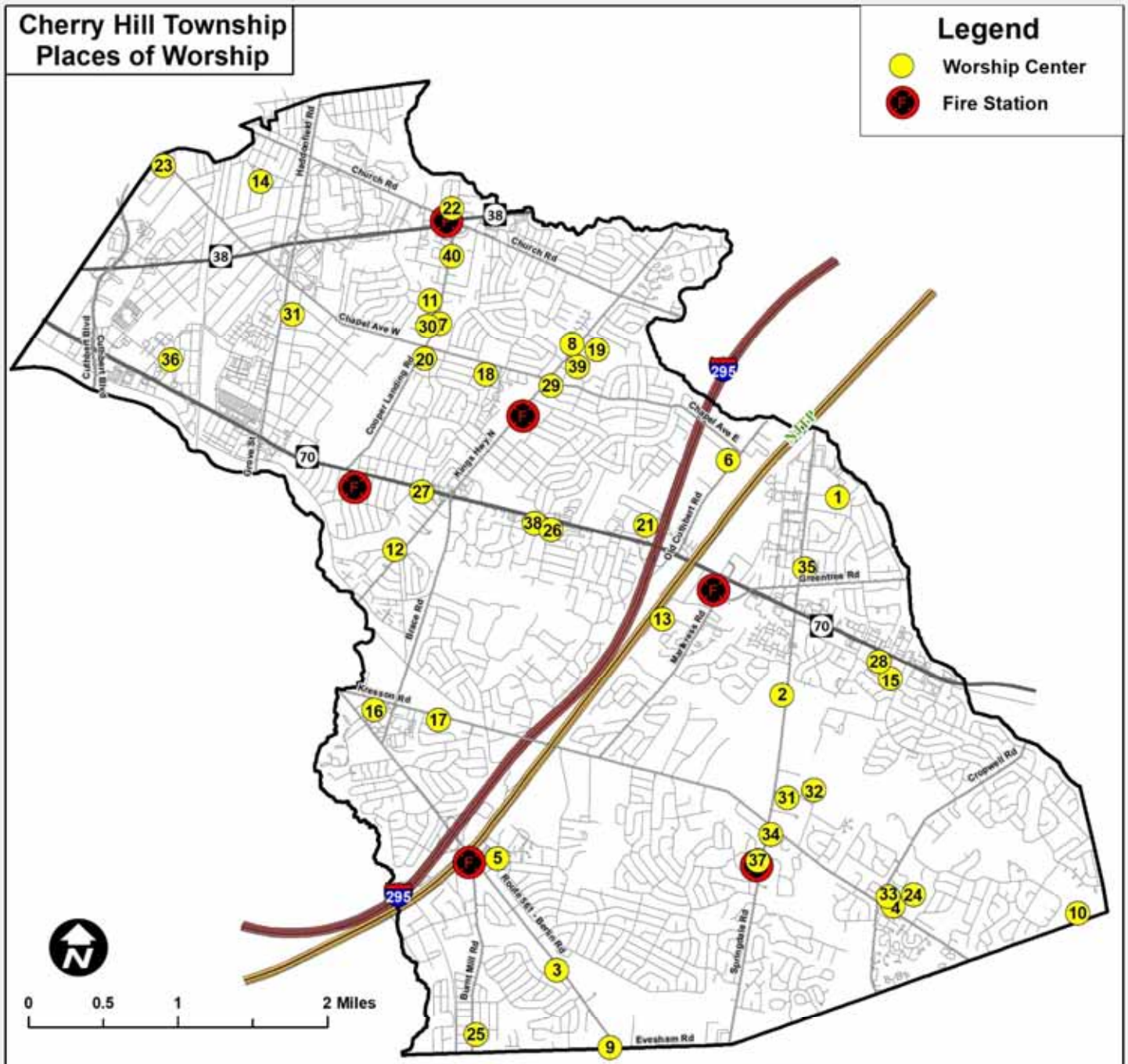


ID	AGENCY	NAME
1	Federal	Internal Revenue Service
2	County	Camden County Store
3	Military	U.S. Army Health Professional
4	County	Camden County Municipal Utilities Authority
5	State	NJ Division of Motor Vehicles
6	State	Department of Transportation
7	State	Division of Criminal Justice
8	Federal	Social Security Administration
9	County	Camden County Municipal Utilities Authority
10	Military	NJ National Guard Armory
11	Municipal	Cherry Hill Municipal Building
12	Federal	Federal Bureau of Investigation
13	Federal	Defense Contracts Audits Administration
14	County	Camden Couty Sheriff

ID	AGENCY	NAME
15	County	Camden Couty Department of Parks
16	Municipal	Cherry Hill Public Library
17	Federal	US Post Office
18	County	Camden County Improvement Authority
19	County	Camden County Job Service
20	County	Camden County College
21	State	Camden County Day Training Center
22	Federal	Immigration and Naturalization Services
23	Federal	U.S. Postal Office
24	Federal	U.S. Postal Office
25	Federal	Defense Security Services
26	State	N.J. Department of Transportation
27	Federal	American Postal Workers Union

PLACES OF WORSHIP

Numerous buildings lie within Cherry Hill in which people gather for entertainment, worship, and such. A variety of nightclubs, theaters, and other entertainment venues exist throughout the township. These facilities present additional risk, primarily for mass casualty incidents. Fire, criminal mischief, and potential terrorism, could cause a major medical emergency requiring significant emergency service resources. The following figure shows the locations of congregational facilities.



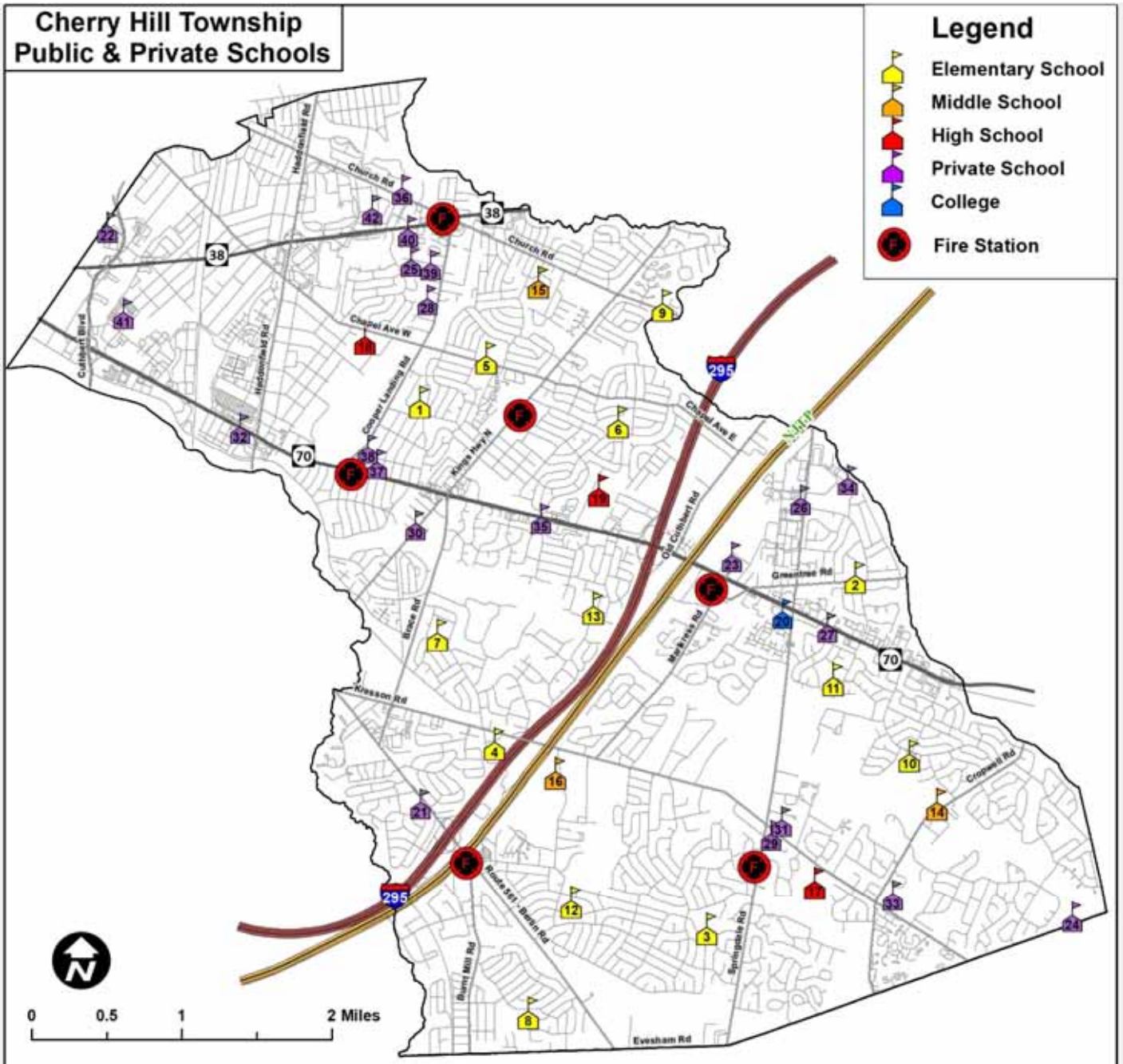
ID	Name
1	BAPS NORTHEAST, INC.
2	BETHEL BAPTIST CHURCH
3	CENTER OF FAITH FELLOWSHIP INC.
4	CHABAD LUBAVITCH OF CAMDEN COUNTY
5	CHERRY HILL CHINESE CHRISTIAN CHURCH
6	CHERRY HILL PRESBYTERIAN CHURCH
7	CHERRY HILL SEVENTH-DAY ADVENTIST CHURCH
8	CHRIST OUR LIGHT CHURCH
9	CHURCH OF JESUS CHRIST OF LDSI
10	CONGREGATION MKOR SHALOM
11	CONGREGATION SONS OF ISRAEL
12	COVENANT PRESBYTERIAN CHURCH
13	DAWOODI BOHRA MASJID, SOUTH JERSEY
14	FAITH BAPTIST CHURCH

ID	Name
15	FIRST KOREAN UNITED METHODIST CHURCH
16	GRACE TEMPLE CHURCH
17	HOLY EUCHARIST CATHOLIC CHURCH
18	IMPACTING YOUR WORLD MINISTRY
19	KING'S COMMUNITY BAPTIST CHURCH
20	KINGSWAY ASSEMBLY OF GOD
21	KWAN CHAO TRUE BUDDHIST TEMPLE
22	LIVING HOPE CHRISTIAN CHURCH
23	MACEDONIAN TEMPLE BAPTIST CHURCH
24	MIKVAH MEI SHIFRA
25	SMVS TEMPLE CHERRY HILL
26	SOKA GAKKAI INT'L USA BUDDHIST CENTER
27	ST. ANDREW'S UNITED METHODIST CHURCH
28	ST. BARTHOLOMEW'S EPISCOPAL CHURCH

ID	Name
29	ST. MICHAEL'S LUTHERAN CHURCH
30	ST. MICHAEL'S UKRAINIAN CATHOLIC CHURCH
31	ST. THOMAS GREEK ORTHODOX CHURCH
32	ST. THOMAS MORE CATHOLIC CHURCH
33	TEMPLE BETH SHOLOM
34	TEMPLE EMANUEL SYNAGOGUE
35	THE CATHOLIC CHURCH OF SAINT MARY
36	THE CONNECT CHURCH
37	TORAH LINKS OF CHERRY HILL
38	TRINITY PRESBYTERIAN CHURCH
39	UNITARIAN UNIVERSALIST CHURCH
40	YOUNG ISRAEL OF CHERRY HILL SYNAGOGUE

SCHOOLS/DAY CARE

The Cherry Hill Fire Department is responsible to protect 30 primary and secondary schools within its response district. There are three (3) high schools, three (3) middle schools, and various public, private and parochial schools. There is also a satellite campus of the Camden County College.



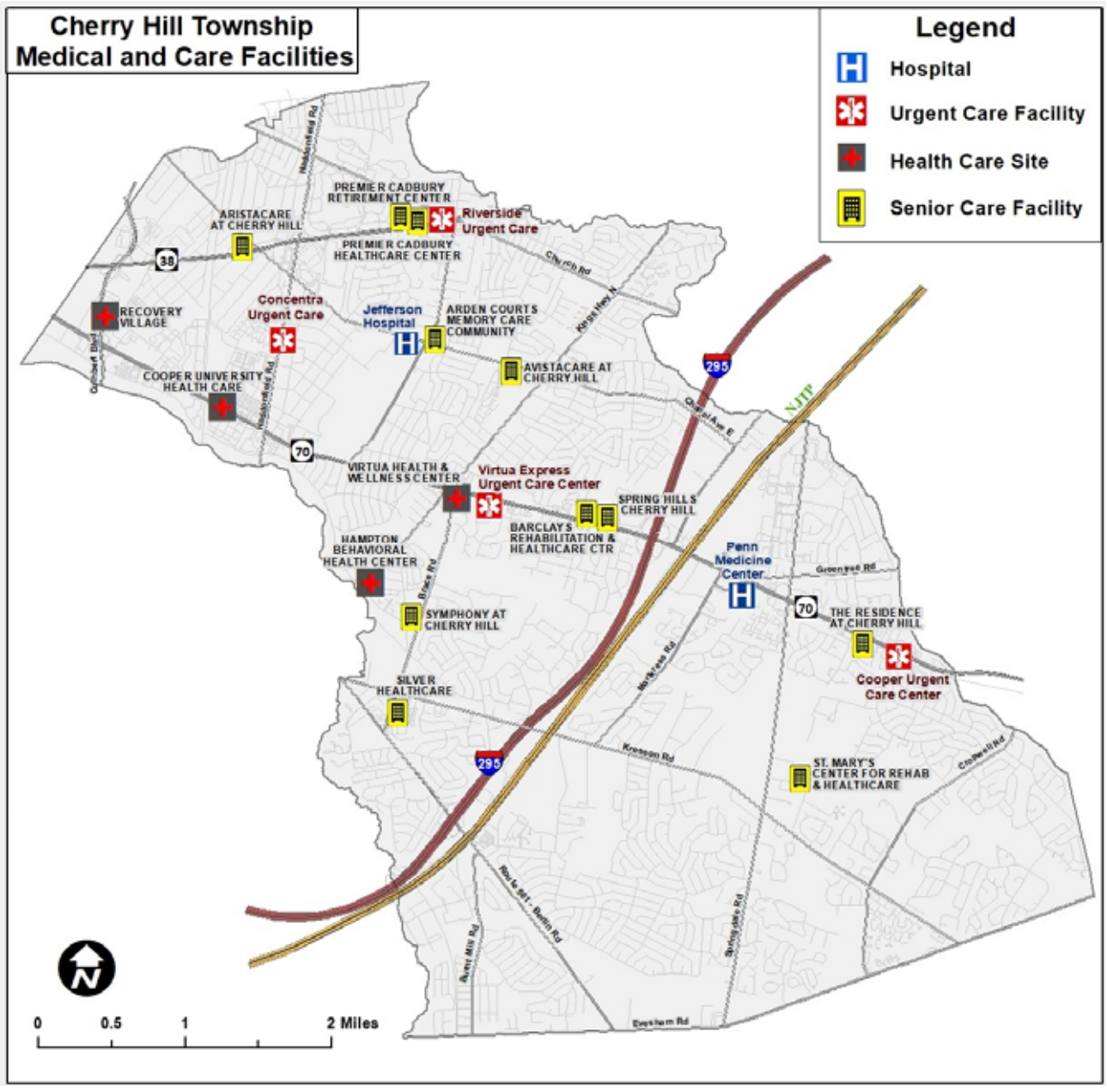
ID	SCHOOL NAME	TYPE
1	Barton Elementary School	Elementary
2	Cooper Elementary School	Elementary
3	Harte Elementary School	Elementary
4	Johnson Elementary School	Elementary
5	Kilmer Elementary School	Elementary
6	Kingston Elementary School	Elementary
7	Knight Elementary School	Elementary
8	Mann Elementary School	Elementary
9	Paine Elementary School	Elementary
10	Sharp Elementary School	Elementary
11	Stockton Elementary School	Elementary
12	Woodcrest Elementary School	Elementary
13	Barclay Early Childhood Center	Elementary
14	Beck Middle School	Middle

ID	SCHOOL NAME	TYPE
15	Carusi Middle School	Middle
16	Rosa Middle School	Middle
17	Cherry Hill High School East	High School
18	Cherry Hill High School West	High School
19	Malberg Administration Building/Alt HS	High School
20	Camden County College	College
21	Brookfield Schools	Private
22	Camden Catholic High School	Private
23	Montessori School	Private
24	Congregation Mkor Shalom Preschool & Kdgn	Private
25	Delaware Valley Torah Institute	Private
26	Goddard School Of Cherry Hill	Private
27	Kindercare Learning Center	Private
28	Politz Day School	Private

ID	SCHOOL NAME	TYPE
29	Presch At Temple Emanuel	Private
30	Resurrection Catholic School & Preschool	Private
31	Sari Isdaner Early Childhood Center At Katz Jcc	Private
32	St Andrew's Nursery School & Kindergarten	Private
33	Temple Beth Sholom	Private
34	The King's Christian School	Private
35	Trinity Nursery School	Private
36	Y.A.L.E. School Cherry Hill	Private
37	YALE School	Private
38	YALE School Annex	Private
39	Forman Delaware Valley Torah Inst.	Private
40	American Institute	Private
41	Prism Career Institute	Private
42	Empire Beauty School	Private

MEDICAL CARE FACILITIES

The township of Cherry Hill is home to a number of important medical care facilities, including the Jefferson Cherry Hospital and other facilities that include skilled nursing, assisted living, urgent care centers and other in-patient care facilities. These facilities present a unique life safety risk in that they house people who are likely of limited mobility or are non-ambulatory. Evacuation of patients requires additional emergency response resources and a well-trained facility staff. The following figure shows the location of many of these important community resources and care facilities.



CRITICAL INFRASTRUCTURE

WATER SUPPLY

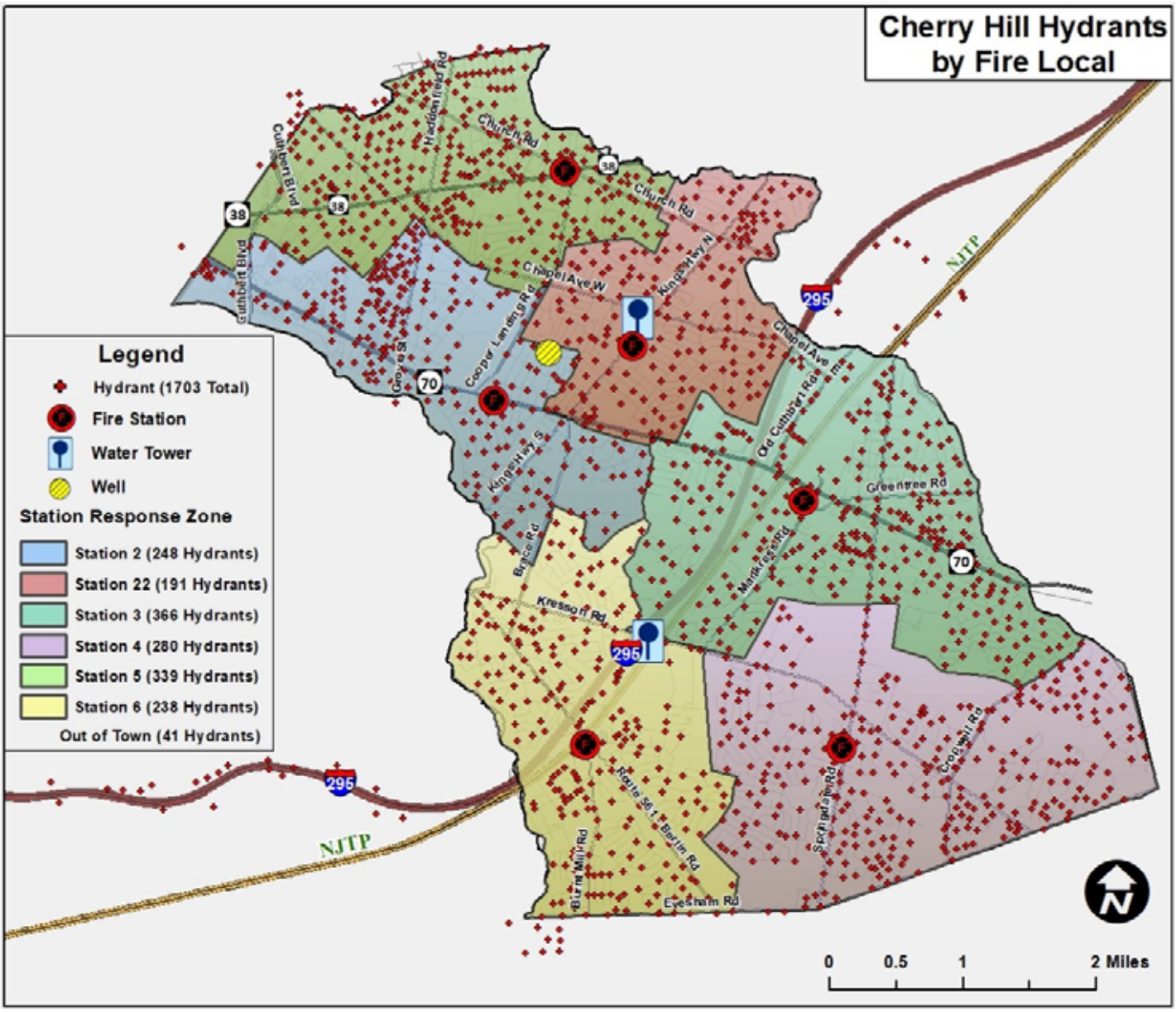
In this section, other types of critical infrastructure to a community are discussed in general terms. Though Cherry Hill does not have any unusual critical community infrastructure, it is important that the fire department plan for emergencies at these facilities.

One major concern to the fire department of this infrastructure is the water main and fire hydrant system. Providing sufficient storage, distribution, and access to this valuable firefighting resource through well-distributed fire hydrants is very important.

Firefighting water service from fire hydrants is available to every developed property within the township. Fire flows are acceptable for risks protected. There are two (2) water delivery systems servicing the township. The majority of the township is serviced by New Jersey American Water Company and the remainder is serviced by the Merchantville-Pennsauken Water Commission.

Hydrants are spaced within 1000 feet for the majority of the grid and the system requirements meet firefighting needs. The water system is maintained regularly by the water companies and the CHFD tests each hydrant independently once per annum. In the event of a deficiency, there is a procedure in place to notify each agency for repairs to be made.

HYDRANT LOCATIONS AND COUNT BY FIRELOCAL:



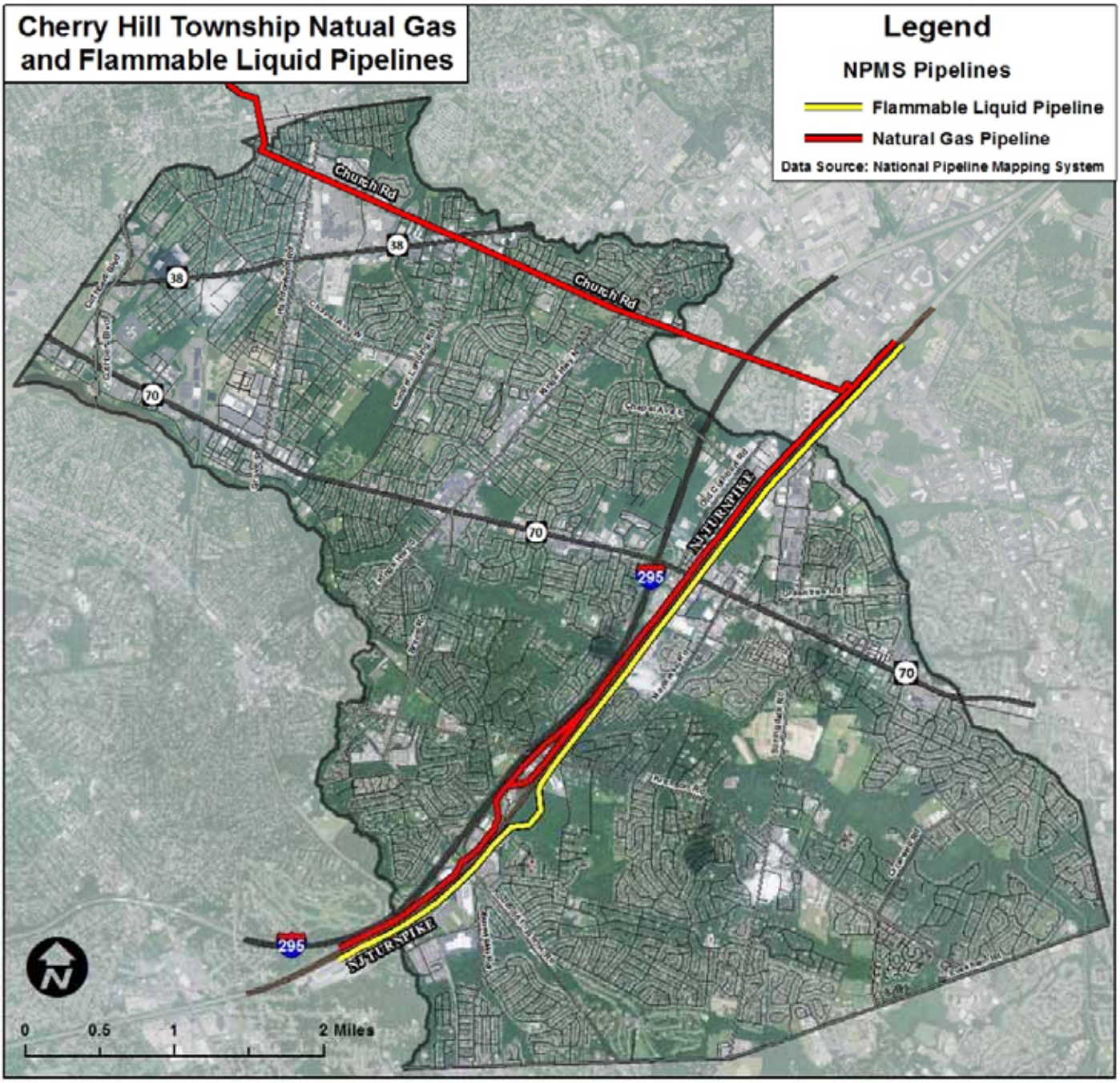
COMMUNICATIONS

Emergency communication centers and the associated transmitting and receiving equipment are essential facilities for emergency response. The Camden County Communications Center provides for 9-1-1 primary public safety answering point (PSAP) and Cherry Hill Police dispatch account for the alternate safety answering point (ASAP) . This communications center provides for the receipt of 9-1-1 calls for help, dispatching of fire and other emergency responders, and important support to the incident management function. The CHFD operates an Emergency Operations Center from Fire Headquarters at Station 3 that is also a critical communications and OEM asset for Police, Fire, EMS, Township Offices, and serves as a backup EOC for Camden County.

Cherry Hill Emergency Operations Center

PIPELINES

There are two (2) flammable liquid pipelines and one (1) natural gas pipeline under high pressure that pass through the Township. These pipelines, though well protected, if ruptured could cause an emergency of considerable significance. Colonial and Sun Oil can run approximately 38 different petroleum products through their pipeline such as; fuel, oil, gasoline, kerosene, toluene and xylene under pressures around 500 psi. Williams Gas Transcontinental Pipe Line carries natural gas under high pressure (300 to 1200 psi) from the southern states to North Jersey and New York. The following figure shows the pipeline routes as they pass through the Township.



The travel route of the Colonial and Sun pipelines run parallel to the New Jersey Turnpike and are on the eastern side of the highway. The Williams' pipeline also runs parallel to the Turnpike, but is on the western side of the highway. The pipelines are properly marked and the right of ways inspected on a regular basis by their companies. There are several commercial and residential properties that are within close proximity to the pipelines right of way, which would pose a risk hazard if there were an incident involving the pipelines. Emergency manuals are maintained in each of the chief's emergency response vehicles. The companies are all proactive in providing up-to-date emergency response information to first responders.

STRUCTURAL RISKS

The protection of property in most cases refers to a building and its contents. This has been the basic mission of the fire department since its inception. Certain buildings, their contents, functions, and size present a greater firefighting challenge and require special equipment, operations, and training.

Risk Assessment

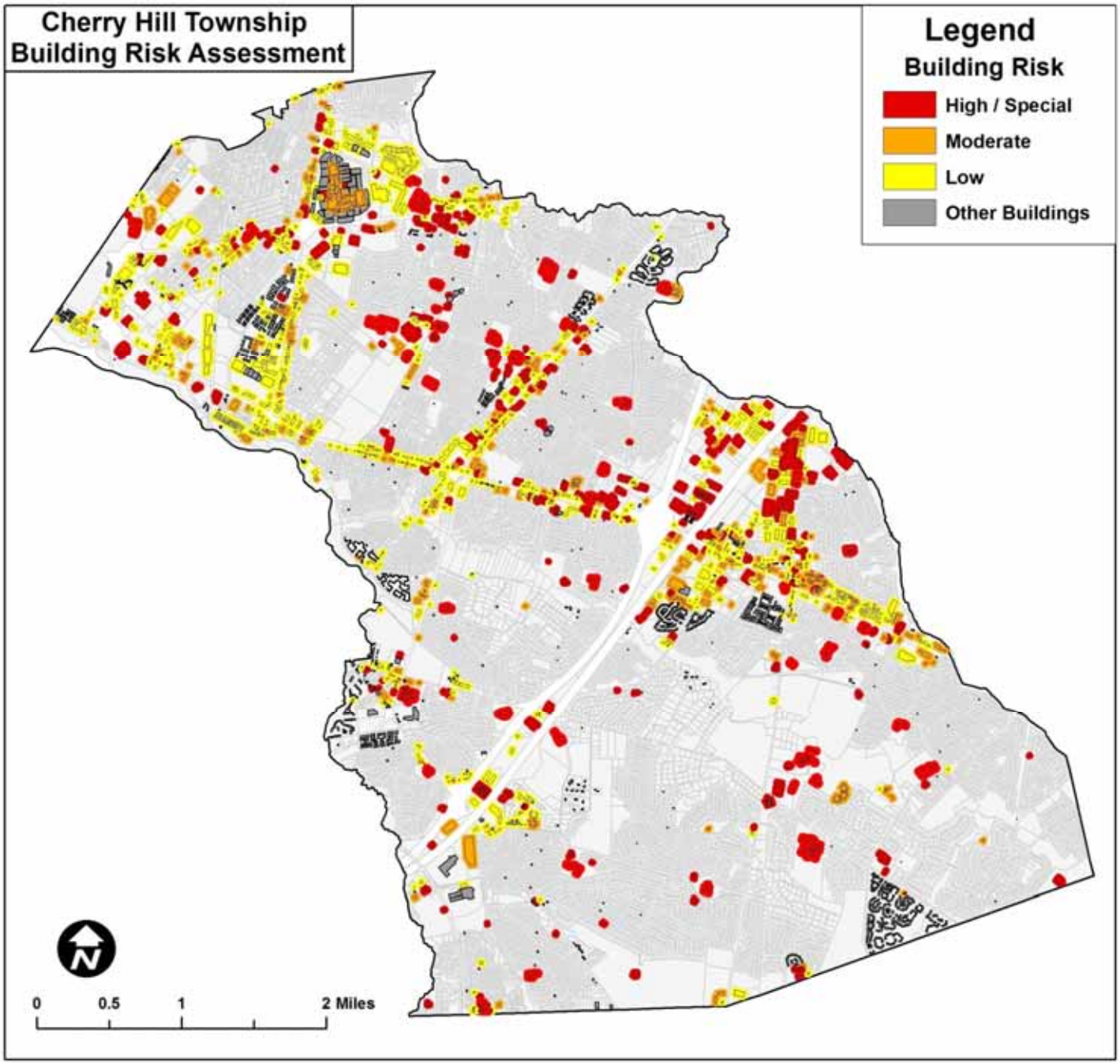
- High Frequency/Moderate Risk (Single Family Dwelling)
- High Frequency/High Risk (Mercantile/High Rise)
- Low Frequency/Low Risk (Detached Garage)
- Low Frequency/High Risk (Hospital/Nursing Home)

BUILDING RISK ASSESSMENT

The commercial buildings within the Township of Cherry Hill were assessed for risk by a risk assessment tool developed by the CHFD. The buildings were assessed with the following factors:

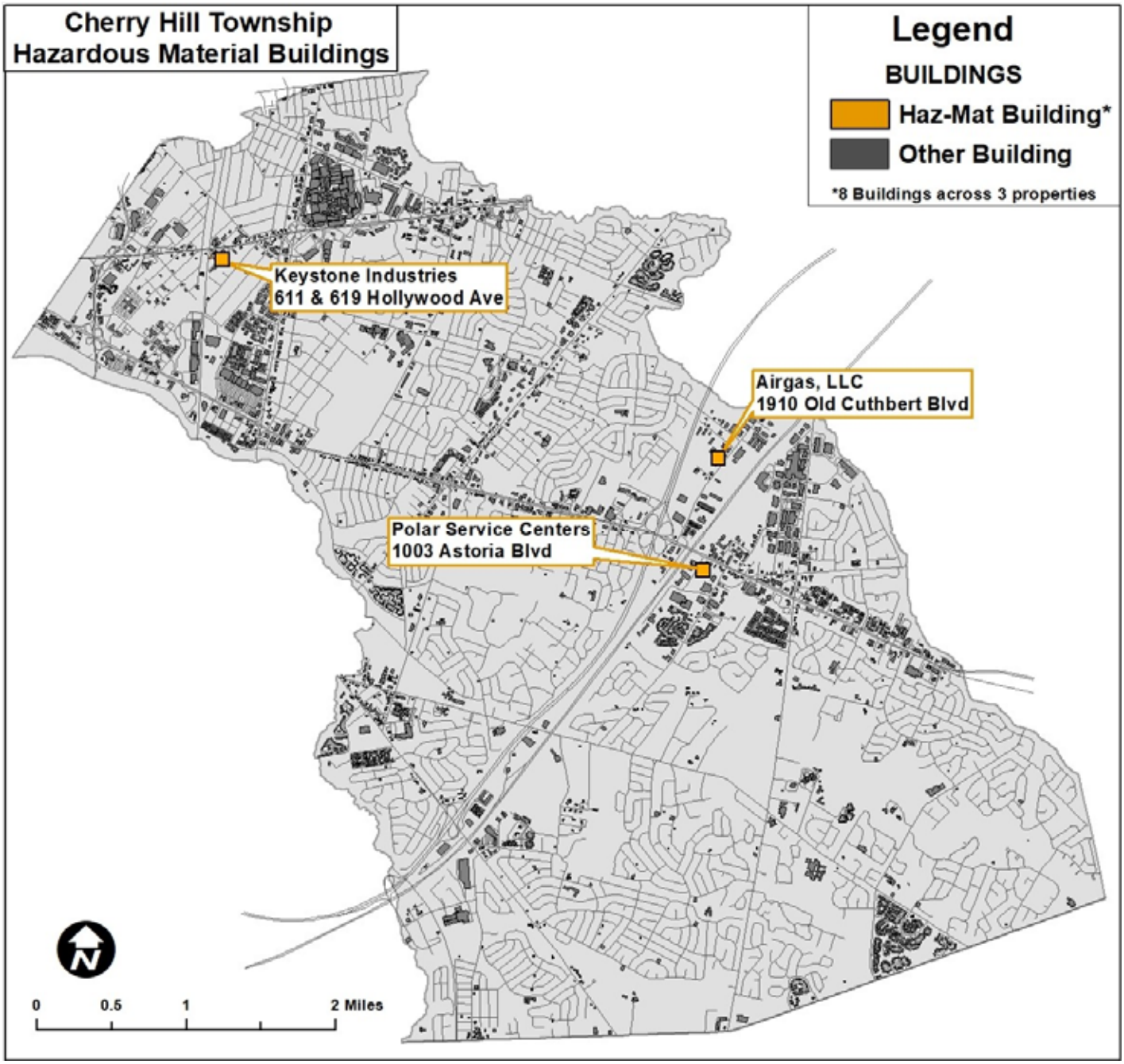
Life Hazard
Construction Class
Occupancy Type
Number of Stories
Square Footage

The results were placed on maps via GIS analysis and show the majority of high-risk buildings that are located in the west battalion and are mainly distributed along the Route 38 and Route 70 corridors.


Cherry Hill Township
Building Risk Assessment
Legend
Building Risk
High / Special
Moderate
Low
Other Buildings
N
0
0.5
1
2 Miles

HAZARDOUS MATERIALS

Buildings containing hazardous materials can create a dangerous environment to the community as well as the firefighters during a spill or fire. Special equipment, protective clothing, and sensors, along with specialized training, are necessary to successfully mitigate a hazardous materials incident. Facilities with bulk hazardous materials in Cherry Hill are Keystone Industries' on Hollywood Avenue, Airgas Products on Old Cuthbert Road and Polar Service Center on Astoria Boulevard. The CHFD provides regional response hazardous materials incidents as part of the Camden County Hazmat Task Force.



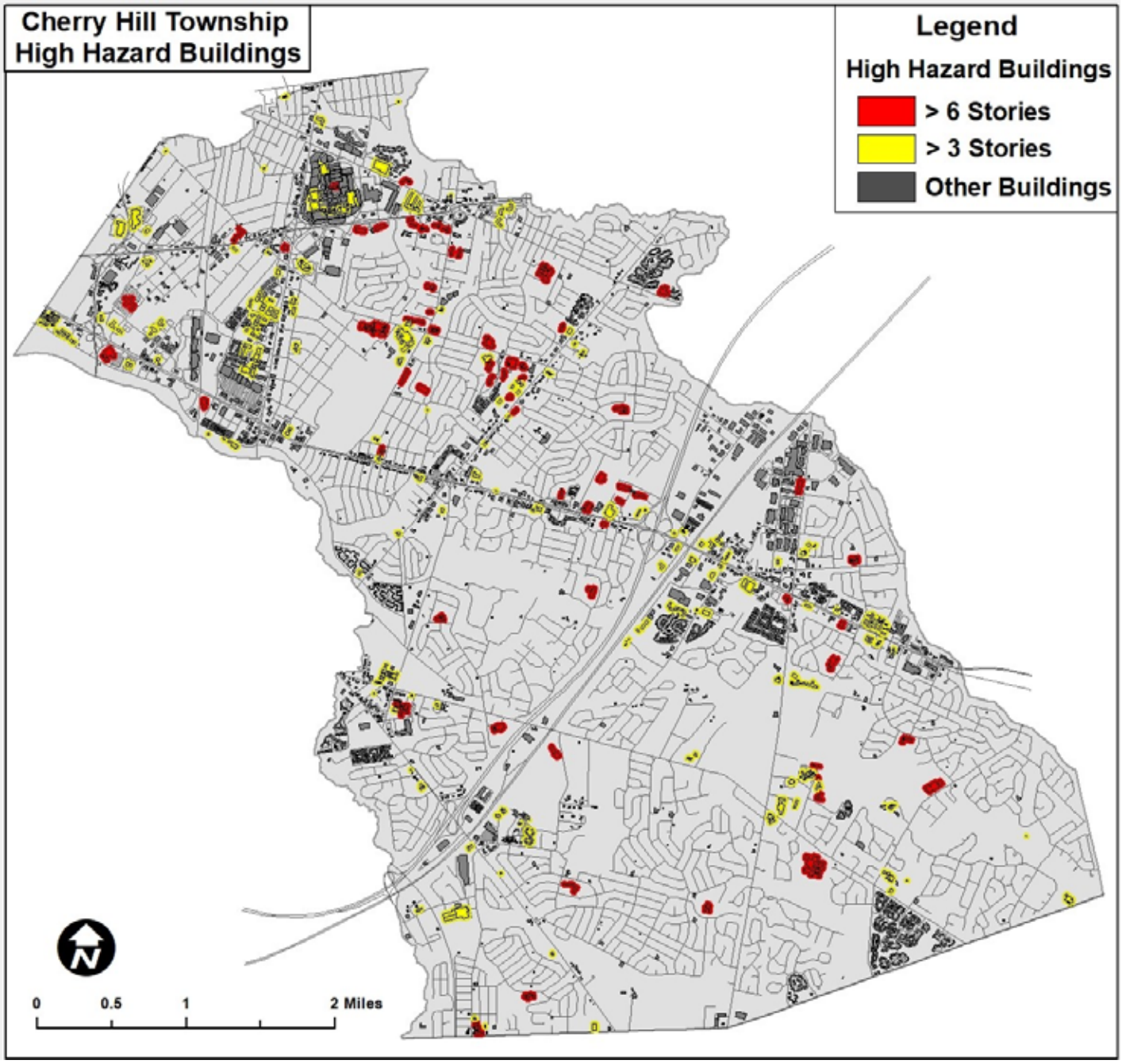
MULTI-STORIED BUILDINGS

Buildings more than three (3) stories in height pose a special risk in an emergency. Fire on higher floors may require an aerial fire truck to be able to deliver water into a building that does not have standpipe systems. For victims trapped on higher floors, a ladder truck may be their only option for escape. The majority of buildings with more than three (3) stories are located in the west battalion.

Buildings six (6) or more floors in height also present challenges to the fire department. Most aerial ladder trucks cannot reach beyond the fifth or sixth floor. Thus, rescue and firefighting activities must be conducted from the interior stairwells. This requires additional personnel to transport equipment up to higher floors. The CHFD utilizes Standard Operational Guidelines that have been developed through years of research and development to respond to the additional hazards of high-rise buildings.

Built-in fire protection (fire sprinklers) provides significant benefit to a building's fire resistance. Modern building codes require fire suppression systems in many buildings. In many communities, developers and builders are given "credit" for built-in protection by allowing narrower streets, longer cul-de-sacs, larger buildings, and/or smaller water mains for new residential developments. While built-in fire protection should significantly reduce the spread of fire, it may not extinguish the fire. Firefighters still need to complete the extinguishment and perform ventilation, overhaul, and salvage operations.

Cherry Hill contains some larger buildings that do not have built-in fire suppression systems. A building fire risk assessment was performed by the Cherry Hill fire Department. Buildings within the township were given a risk rating. Higher risks were plotted on response maps and taken into consideration for responses, staffing, and companies dispatched.


Cherry Hill Township
High Hazard Buildings
Legend
High Hazard Buildings
> 6 Stories
> 3 Stories
Other Buildings
N
0
0.5
1
2 Miles

TERRORISM

Cherry Hill is a potential target for terrorism. Most of the previous categorized risks in the community are targets for such activity. In addition, Cherry Hill is in close proximity to the City of Philadelphia, which has a greater terrorism risk. CHFD may either be impacted by the consequence of a terrorist act in Philadelphia, or be asked to support Philadelphia, or the region in the aftermath of such an event. The fire department needs to be vigilant in its training and preparedness in the event that one or more coordinated acts of terror occur in the region.

POPULATION AND DEVELOPMENT GROWTH

CURRENT POPULATION INFORMATION

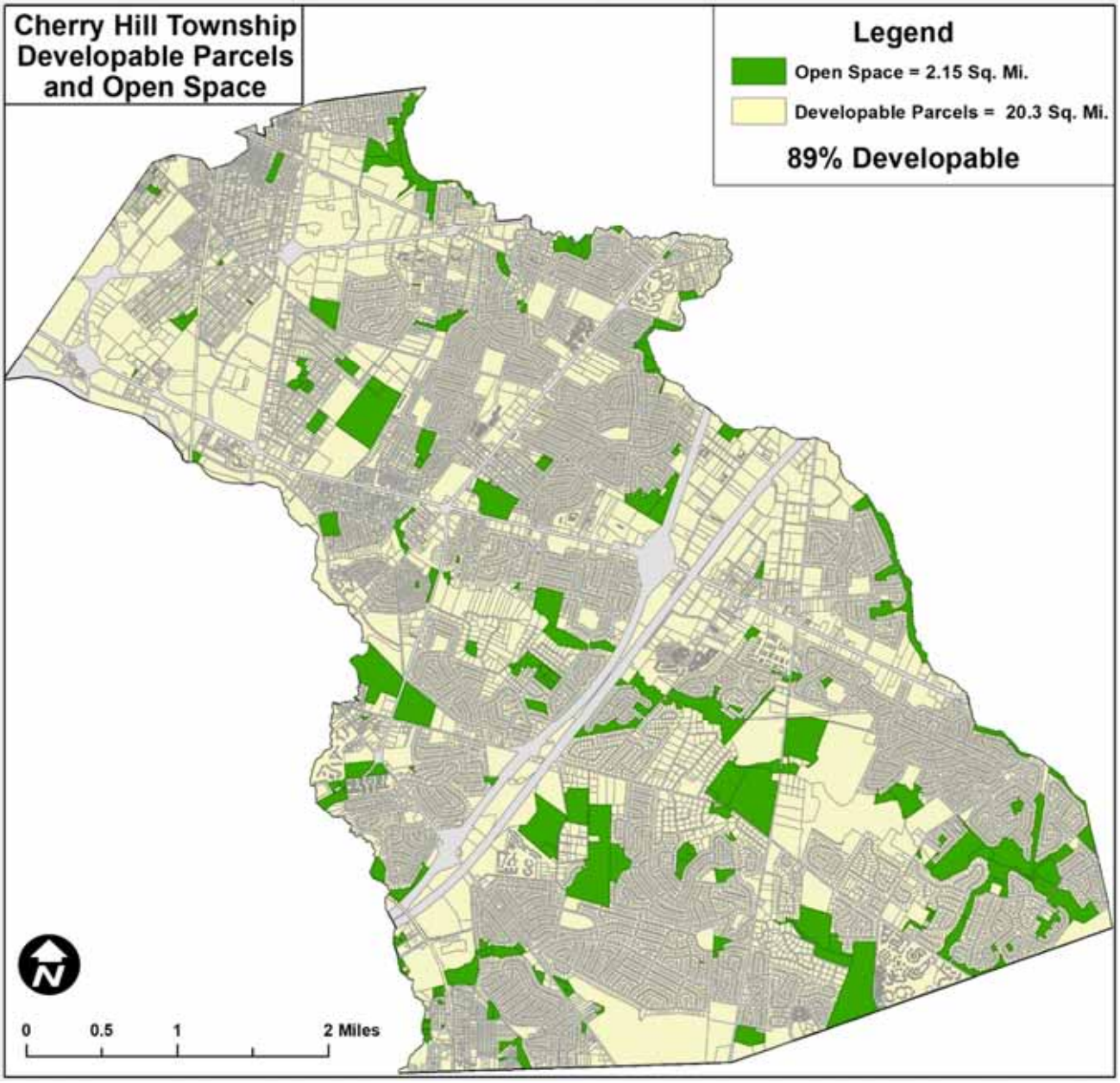
The township's population grew rapidly after World War II, and continued to increase until the 1980s. Today, the municipality's population is stable; however, with redevelopment generally occurring in adaptive reuses of commercial and industrial areas, the 2020 census should indicate a population increase in Cherry Hill.

Cherry Hill Township, NJ
Historic Population

Census	Pop.	%±
1850	2,577	—
1860	1,602	−37.8%
1870	1,625	1.40%
1880	1,481	−8.9%
1890	1,457	−1.6%
1900	1,679	15.20%
1910	1,706	1.60%
1920	2,331	36.60%
1930	5,734	146.00%
1940	5,811	1.30%
1950	10,358	78.20%
1960	31,522	204.30%
1970	64,395	104.30%
1980	68,785	6.80%
1990	69,348	0.80%
2000	69,965	0.90%
2010	71,045	1.50%
2019 (estimate)	**71,245**	**0.30%**

SITE REDEVELOPMENT WITHIN THE TOWNSHIP

Eighty-nine (89%) percent of the Township is considered developable. There are still pockets of undeveloped land scattered around the community. The Township Department of Community Development has been aggressively marketing Cherry Hill to bring in new businesses and promote redevelopment of vacant and underperforming parcels of land.



New building construction occurs quickly in Cherry Hill as retailers wish to get new stores open as soon as possible. The Township and Fire Department have invested in Nearmap imagery technology which includes three (3) aerial surveys per year to help keep track of redevelopment sites.

CURRENTLY UNDER DEVELOPMENT

- Garden State Park – Continued development of the former horse racing track includes several five (5) story apartment buildings, 55 and over residential units, townhouses, condominiums and commercial space which includes both COSTCO and Duluth Trading Company franchises.

- Haddonfield Road Corridor – Adjacent to the Garden State Racetrack, several new commercial buildings have recently come online, including Wawa, HomeGoods, Trader Joe's, and Chase Bank.

- A brand new CVS is currently under construction at Route 70 and Springdale Road, which is one of the busiest intersections in town. The existing buildings were razed to make room at this location for the new drive-thru pharmacy.

- Evans – Francis Estates – Development of 26 townhouses and 28 apartments on 4 acres of land.

- Park Blvd Gateway – Redevelopment of 7.2 acres to include 176 apartments within a three (3) and four (4) story apartment building in addition to 16 three (3) story townhomes.

DEVELOPMENT IN PLANNING

- Victory Gateway – Still in the conceptual stages, this 35 acre site could include mixed use of apartments, a hotel and retail shopping. It is within walking distance of the Woodcrest Station of the PATCO High Speedline (Light Rail).

- Hampton Road – Nineteen acres to be re-developed from two (2) vacant commercial properties to include 300 apartments in a cluster of buildings on the property.

FUTURE DEVELOPMENT SITES

- Route 38 Gateway – Fourteen acres along Route 38 and Cuthbert Blvd are being studied for future re-development.

- Cuthbert Blvd Gateway – Thirteen acres along Cuthbert Blvd are also being studied for re-development in addition to Route 70 frontage leading up to Cuthbert Blvd.

INCIDENTS GENERATED FROM RECENT REDEVELOPMENT

The redevelopment of properties within the township has a direct effect on the delivery of emergency services as they increase the number of both fire and medical calls. The fire department incorporates this cause and effect relationship into the strategic planning process by keeping track of extra trips generated at recently completed facilities.

The table below includes different examples of completed facilities and the rate of emergency calls observed since their opening. They are representative of the type of development most commonly seen in town: Medical Facility, Senior Care, Retail, and Residential Subdivision.

Recently Opened Redevelopment Sites

Facility Name	Type / Size	Opening Date	Number of Incidents Since Opened	Average Number of Incidents Per Month
Penn Medicine (1865 Route 70)	Multi-function Medical Facility on 11 Acre Lot	October 2016	269 EMS Calls 57 Fire Calls	5.4 EMS Calls / month 1.1 Fire Calls / month
Evans Mill (Brace and Kresson Rds)	Residential Subdivision 165 Townhouse Units	October 2018	29 EMS Calls 23 Fire Calls	1.1 EMS Calls / month 0.9 Fire Calls / month
Symphony Senior Care (1240 Brace Rd)	Multi-story Assisted Living Complex on 3.25 Acres	June 2018	74 EMS Calls 19 Fire Calls	2.4 EMS Calls / month 0.6 Fire Calls / month
WAWA / WAWA Gas (904 Haddonfield Rd)	Retail Convenience and Gas on 2.69 Acres	October 2019	1 EMS Calls 7 Fire Calls	0.1 EMS Calls / month 0.5 Fire Calls / month

By understanding the rate and type of incidents generated from these redeveloped sites the Fire Department can provide Community Development with an accurate estimate of the additional system workload introduced by each. This helps keep redevelopment and its related effects in-mind so that better planning decisions can be made for the township with regard to the delivery of emergency services.

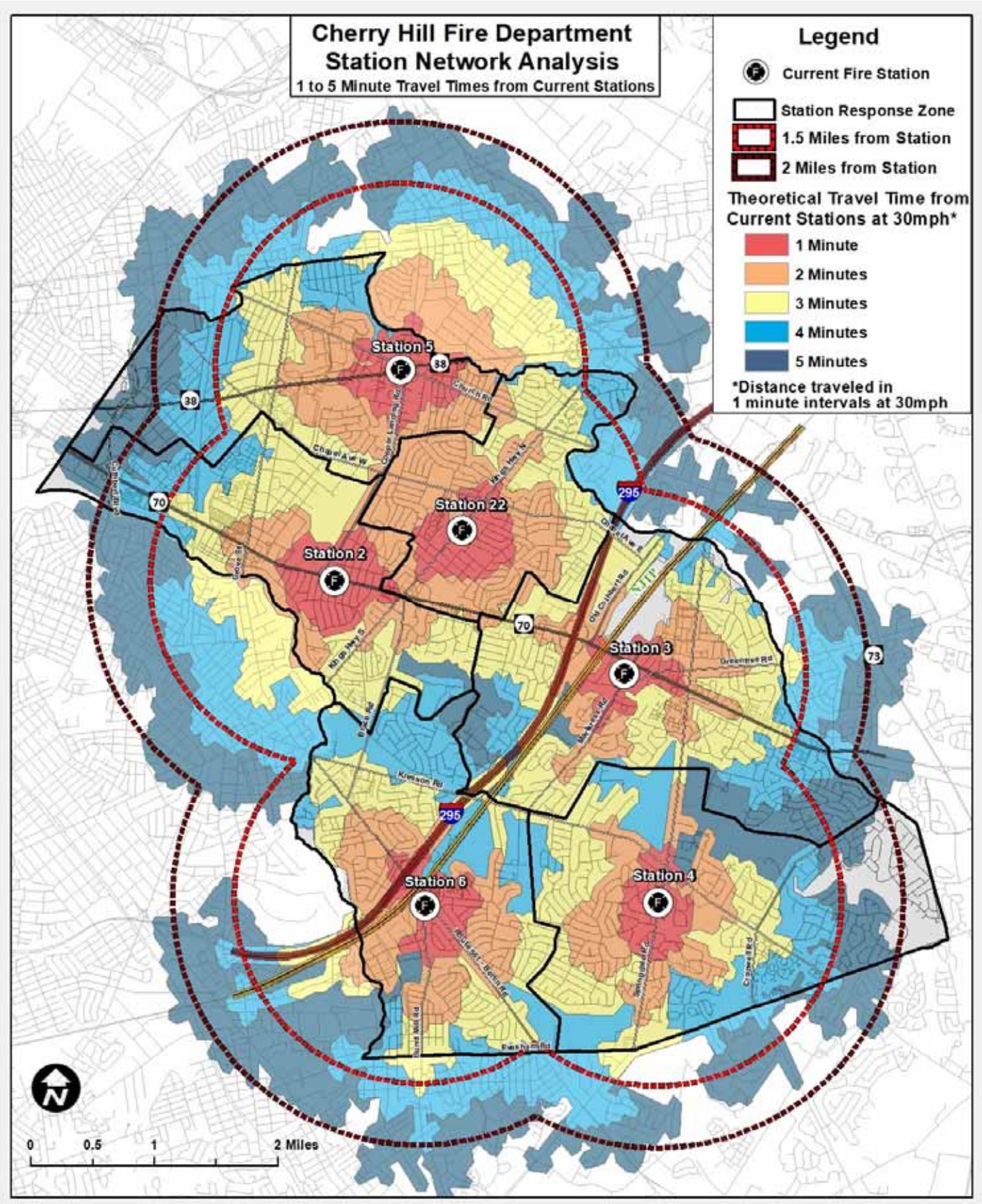
There are several additional sites within the Township that have potential for future redevelopment. The Fire Marshal works closely with the Department of Community Development to help strike a balance of growing the tax-base while not overburdening the current delivery of service to its residents.

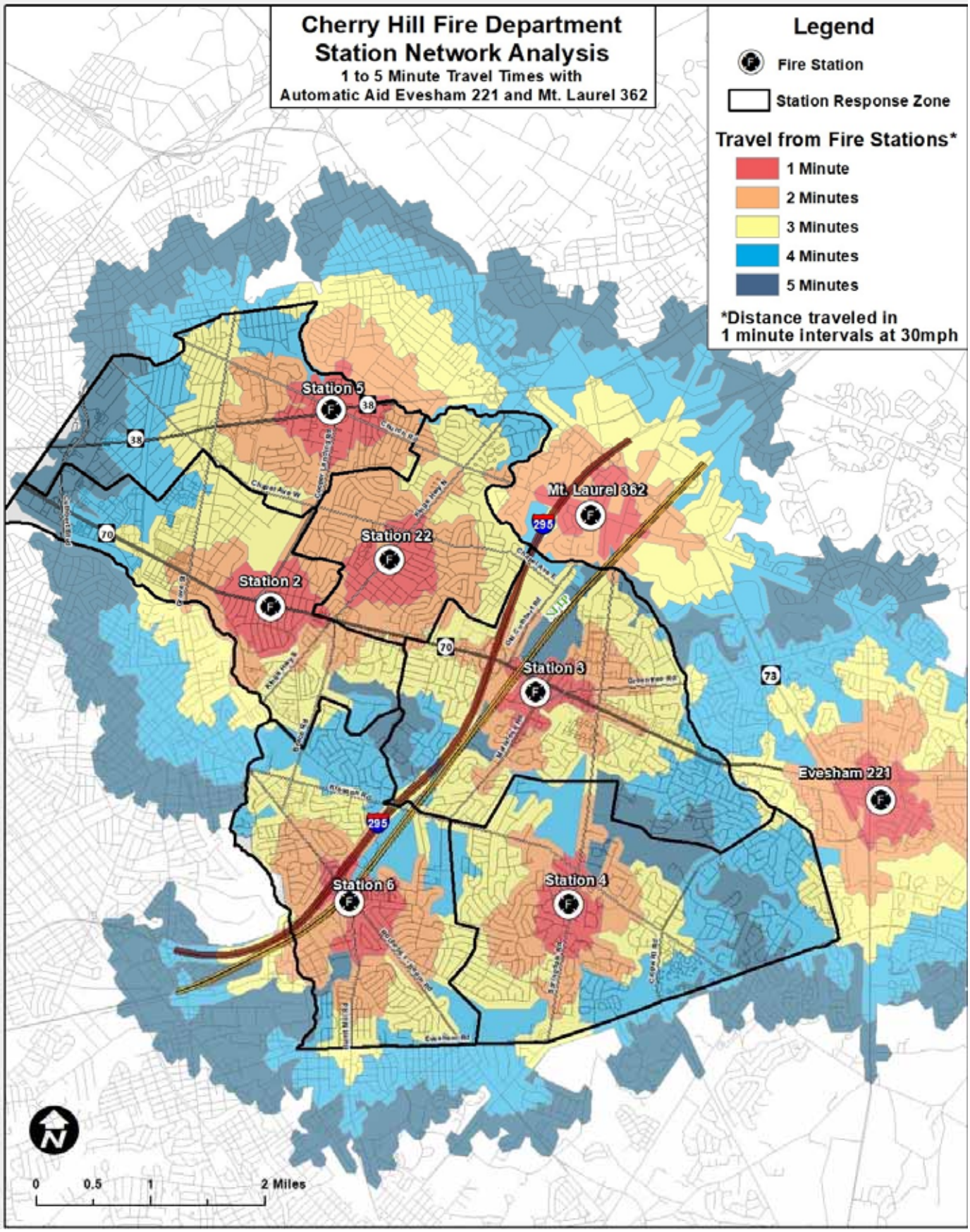
FIRE DEPARTMENT PLANNING EFFORTS

In 1994, MMA Consulting Group conducted an analysis of Cherry Hill Fire Department operations. As part of that study, alternate fire station locations were provided. Currently, all the active fire stations in Cherry Hill are located where they were first established in the early 1900's with the exception of Station 22, which is located at 951 North Kings Highway.

This fire station was constructed in 2001/2002 and was a location identified in the 1994 MMA report. This station has improved service delivery for the entire township. A second location that was identified in the MMA report was on the Haddonfield Road and Chapel Avenue corridor. A fire station in this general area will improve response coverage in the western portion of the township, while also providing service delivery township-wide. With the influx of potential redevelopment and use group changes, the fire department needs to place this fire station in the planning process. The maps below show the current fire station locations and a realignment of fire stations using the Chapel Avenue and Route 38 corridor. By constructing this new fire station, the department will be placing an engine company and a basic life support unit in a more suited strategic location to serve the township for emergency responses.

The following Maps depict planning efforts on behalf of the CHFD to ensure assets, and stations are located to maximize the benefit to the department and the public.


Cherry Hill Fire Department
Station Network Analysis
1 to 5 Minute Travel Times from Current Stations
Legend
Current Fire Station
Station Response Zone
1.5 Miles from Station
2 Miles from Station
Theoretical Travel Time from Current Stations at 30mph*
1 Minute
2 Minutes
3 Minutes
4 Minutes
5 Minutes
*Distance traveled in 1 minute intervals at 30mph
Station 5
Station 22
Station 2
Station 3
Station 6
Station 4
38
70
295
73
0
0.5
1
2 Miles


Cherry Hill Fire Department
Station Network Analysis
1 to 5 Minute Travel Times with
Automatic Aid Evesham 221 and Mt. Laurel 362
Legend
Fire Station
Station Response Zone
Travel from Fire Stations*
1 Minute
2 Minutes
3 Minutes
4 Minutes
5 Minutes
*Distance traveled in
1 minute intervals at 30mph
Station 5
Mt. Laurel 362
Station 22
Station 2
Station 3
Evesham 221
Station 6
Station 4
38
70
295
73
NJTP
0
0.5
1
2 Miles

CRITICAL TASKING AND ERF

Critical tasks are those activities that must be conducted in a timely manner by firefighters at emergency incidents in order to control the situation. CHFD is responsible for assuring that responding companies are capable of performing all of the described tasks in a prompt, efficient, and safe manner. The following are the minimum number of personnel needed by incident type. This serves as the statement of Effective Response Force for the CHFD for typical incident types and their associated risks. Low risk structures are handled with a single resource and are not charted. Moderate Risk Structure Fires are single-family dwellings with no additional known hazards, high risk/special risk buildings are those, which pose an increased life risk for multiple occupants such as high rises, hospitals, nursing homes and covered malls. The CHFD uses a tiered dispatch system and the following charts reflect initial dispatch assignments. Upon arrival of the first company, additional resources are committed to the assignment according to first due reporting. CHFD has developed the following Critical Task analyses for various incident types. Further, it has defined, based on current unit staffing levels, the number and types of apparatus needed to deliver sufficient numbers of personnel to meet the critical tasking identified. CHFD's review of the Critical Task analysis concludes that all are in keeping with industry standards and provide the minimum number of personnel needed for effective incident operations.

Fires

Fire - Low Risk

Task	Number of Personnel
Command/Safety	1
Pump Operations	1
Attack Line	1
Total	**3**

Fire - Moderate Risk (Single Family and Small Buildings)

Task	Number of Personnel
Command/Safety	1
Attack Line	2
Pump Operator	1
Back-up Line	2
Search and Rescue	4
RIT	2
Outside Vent	1
Total	**13**

Fire – High Risk/Special Risk

Task	Number of Personnel
Command	1
Safety Officer	1
Attack Lines -2	6
Pump Operator	1
Back-up Line	2
Search and Rescue	4
Ventilation	2
RIT	4
Total	**21**

Hazardous Materials

Hazardous Materials- Level I - Low Risk

Task	Number of Personnel
Command/Safety	1
Research/Support	2
Total	**3**

Hazardous Materials- Level II – Moderate Risk

Task	Number of Personnel
Command	1
Air Monitoring	2
Entry	2
Back Up	2
Total	**7**

Hazardous Materials - High/Special Risk

Task	Number of Personnel
Command	1
Safety	1
Hazmat Branch	1
Research Support	1
Rehab / Medical Monitoring	2
Decontamination	4
Entry Team	4
Back Up	4
RIT	4
Air Monitoring	1
Total	**23**

Technical Rescue

All listed technical rescue incidents of high and special risk are a part of the Camden County Task Force Assignment. Two additional rescue teams are on the initial dispatch in addition to the Cherry Hill resource assignment as per Camden County Rescue Task Force guidelines for high-risk events or USAR deployment.

Technical Rescue - Low Risk

Task	Number of Personnel
Command/Safety	1
Rescue Team	3
Total	**4**

Motor Vehicle Accident (Non Trapped) – Low Risk

Task	Number of Personnel
Patient Care	1
Documentation	1
Total	**2**

Motor Vehicle Accident (Entrapment) – Moderate Risk

Task	Number of Personnel
Command/Safety	1
Patient Care	2
Extrication	4
Pump Operator/Suppression Line	3
Vehicle Stabilization	2
Total	**12**

Technical Rescue – Water – Moderate Risk

Task	Number of Personnel
Command/Safety	2
Rescue Team	6
Backup Team	3
Total	**11**

Technical Rescue – Rope – Moderate Risk

Task	Number of Personnel
Command/Safety	2
Rescue Team	6
Backup/support team	3
Ground Support	3
Total	**14**

Technical Rescue – Confined Space – Moderate Risk

Task	Number of Personnel
Command/Safety	2
Rescue Team	6
Backup/support team	3
Air Monitoring	2
Total	**13**

Technical Rescue – Trench– Moderate Risk

Task	Number of Personnel
Command/Safety	2
Rescue Team	4
Backup/support team	4
Shoring	4
Total	**14**

Technical Rescue – High/Special Risk*

Task	Number of Personnel
Command/Safety	2
Rescue Team	9
Backup/support team	9
Support	6
Total	**26**

*Includes initial dispatched units from CHFD.

Two additional rescue teams are on the initial dispatch in addition to the Cherry Hill resource assignment as per Camden County Rescue Task Force guidelines for high-risk events or USAR deployment.

Emergency Medical Service

Emergency Medical Aid BLS Call – Low Risk

Task	Number of Personnel
Patient Care	1
Documentation	1
Total	**2**

Emergency Medical Aid ALS Call – Moderate Risk

Task	Number of Personnel
Patient Care	1
Documentation	1
ALS Unit	2
Total	**4**

Major Medical Response (MCI)- High/Special Risk

Task	Number of Personnel
Incident Command	1
Safety	1
Triage	2
Treatment Manager	1
Patient Care	12
Transportation Manager	1
Total	**18**

ALARM ASSIGNMENTS

In order to ensure sufficient personnel and apparatus are dispatched to an emergency event, the following is the minimum number of apparatus and personnel that should be sent on the first alarm or initial dispatch to the type of emergency noted. For the following charts, the words engine and squrt are synonymous. The company requirement reflects the minimum manning standards utilized by the CHFD on a 24-hour basis. In using the minimum standards for the alarm assignments, the CHFD is assured that the number of personnel will be attainable for every response regardless of any outside influence. For specialized moderate and high risk technical rescues and high risk Hazardous Materials incidents, the staffing count below reflects the automatic dispatch of mutual aid assets as part of the Camden County USAR and Hazmat Task Force programs. There are times when staffing is above the stated levels, according to schedules, time and day of the week. "Total Staffing needed" is the number identified in the Critical Tasking analysis above. BLS is provided to all fire calls, but is not listed below as fire apparatus do not provide the EMS at fire incidents. BLS and ALS are not included in the fire staffing requirements as they are given their own staffing charts as noted.

Fire - Low Risk

Unit Type	Number of Units	Total Personnel
Engine or Ladder	1	3
Total Staffing Required		**3**
Total Staffing Provided		**3**

Fire – Moderate Risk

Unit Type	Number of Units	Total Personnel
Ladder	1	3
Engine	3	9
Battalion Chief	1	1
Total Staffing Required		**13**
Total Staffing Provided		**13**

Fire – High/Special Risk

Unit Type	Number of Units	Total Personnel
Ladder	2	6
Engine	5	16
Battalion Chief	1	1
Total Staffing Required		**21**
Total Staffing Provided		**23**

Hazardous Materials – Low Risk

Unit Type	Number of Units	Total Personnel
Engine or Ladder	1	3
Total Staffing Required		**3**
Total Staffing Provided		**3**

Hazardous Materials – Moderate Risk

Unit Type	Number of Units	Total Personnel
Hazmat	1	3
Ladder or Engine	1	3
Battalion Chief	1	1
Rescue	1	3
Total Staffing Required		**7**
Total Staffing Provided		**10**

Hazardous Materials – High/Special Risk*

Unit Type	Number of Units	Total Personnel
Hazmat	2	6
Ladder or Engine	3	9
Battalion Chief / Safety Officer	2	2
Rescue	2	7
Ambulance	1	2
Total Staffing Required		**23**
Total Staffing Provided		**26**

*High and Special Risk hazardous materials incidents are augmented by the Camden County Hazardous Materials Task Force.

Technical Rescue Low Risk

Unit Type	Number of Units	Total Personnel
Ladder or Engine	1	3
Command Staff	1	1
Total Staffing Required		**4**
Total Staffing Provided		**4**

Technical Rescue – Water – Moderate Risk

Unit Type	Number of Units	Total Personnel
Engine or Ladder	2	6
Rescue	1	3
Battalion Chief/Safety	2	2
Total Staffing Required		**11**
Total Staffing Provided		**11**

Technical Rescue – Rope – Moderate Risk

Unit Type	Number of Units	Total Personnel
Rescue	2	6
Engine or Ladder	2	6
Battalion Chief/Safety	2	2
Total Staffing Required		**14**
Total Staffing Provided		**14**

Technical Rescue – Confined Space – Moderate Risk

Unit Type	Number of Units	Total Personnel
Rescue	2	7
Engine or Ladder	2	6
Battalion Chief/Safety	2	2
Total Staffing Required		**13**
Total Staffing Provided		**15**

Technical Rescue - Trench - Moderate Risk

Unit Type	Number of Units	Total Personnel
Rescue	2	7
Engine or Ladder	2	6
Battalion Chief/Safety	2	2
Total Staffing Required		**14**
Total Staffing Provided		**15**

Technical Rescue – High/Special Risk

Unit Type	Number of Units	Total Personnel
Squad Engine	2	7
Ladder or Engine	3	9
Battalion Chief / Safety Officer	2	2
Rescue	2	7
Ambulance	1	2
Total Staffing Required		**26**
Total Staffing Provided		**27**

Major Medical calls for service (Special Risks) are augmented with the Camden County EMS Task Force. ALS is not provided by the CHFD. A hospital based ALS is provided.

Emergency Medical Service – Low Risk

Unit Type	Number of Units	Total Personnel
BLS Unit	1	2
Total Staffing Required		**2**
Total Staffing Provided		**2**

Emergency Medical Service - Moderate Risk

Unit Type	Number of Units	Total Personnel
BLS Unit	1	2
ALS Unit (Third Party)	1	2
Total Staffing Required		**4**
Total Staffing Provided		**4**

Emergency Medical Service - High/Special Risk (Multiple Patients)

Unit Type	Number of Units	Total Personnel
Battalion Chief and EMS Supervisor	2	2
BLS	2	4
Engine or Ladder	3	9
Total Staffing Required		**18**
Total Staffing Provided		**15**

Augmented with Camden County EMS Task Force

Motor Vehicle Accident (Non-Trapped)

Unit Type	Number of Units	Total Personnel
Engine or Ladder	1	3
BLS Unit	1	2
Total Staffing Required		**5**
Total Staffing Provided		**5**

Fire apparatus assigned for safety on busy roads

Motor Vehicle Accident (Trapped)

Unit Type	Number of Units	Total Personnel
Engine or Ladder	2	6
Rescue	1	3
BLS Unit	1	2
EMS Supervisor	1	1
Battalion Chief	1	1
Total Staffing Required		**12**
Total Staffing Provided		**13**

COMPONENT E - HISTORICAL PERSPECTIVE AND SUMMARY SYSTEM PERFORMANCE

Distribution Factors

The Standard of Cover for the Cherry Hill Fire Department has been derived from, and specifically influenced from two factors: the distribution of resources and the concentration of resources in the community. Distribution is the specific location for resources (Stations) and their corresponding effectiveness according to first due response. It is the ultimate goal to ensure stations are located to ensure timely response to all calls for service within the boundaries of the Township of Cherry Hill. Acceptable first due response times are a good indicator of effective distribution of stations. This is measured through first due analysis according to a comparison of real time responses to benchmarks provided.

Concentration Factors

Concentration factors are also evaluated to ensure the responding units are effective as a whole to ensure a first alarm can arrive in an efficient manner. This is measured through Effective Response Force data analysis according to a comparison of real time responses to the benchmarks provided. While distribution factors measure the location of stations, concentration factors are a measurement of the overall number of stations.

Reliability Factors

Reliability factors are the balance between distribution and concentration. It is the responsibility of the Cherry Hill Fire Department to ensure that the workload is evenly distributed between the stations and corresponding personnel. If one station is overtaxed, the result is another station is not being effectively utilized. Evaluation of historic system workload plays a key role in the reliability of station and unit efficiency.

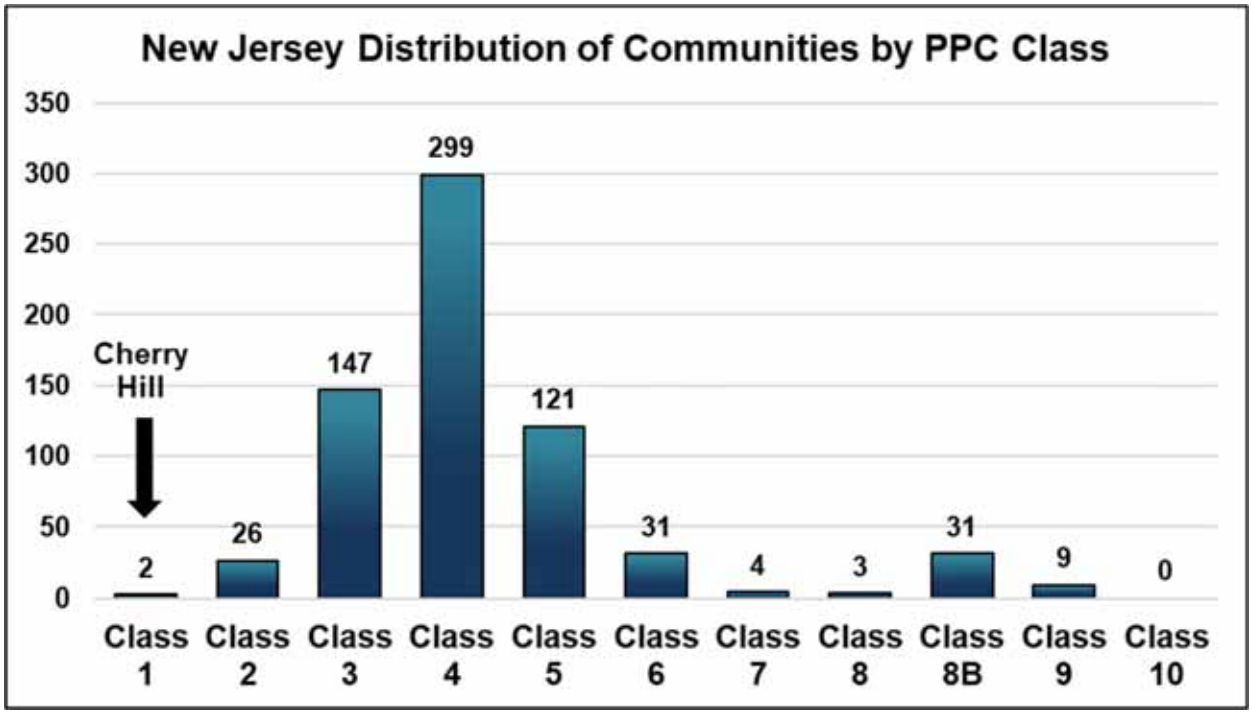
Comparability

Comparability is the ability to compare the performance of an agency to one of similar characteristics. The Cherry Hill Fire Department achieves this through the use of standards such as NFPA and the Insurance Services Office.

ISO Rating

Organization (ISO) Public Protection Classification

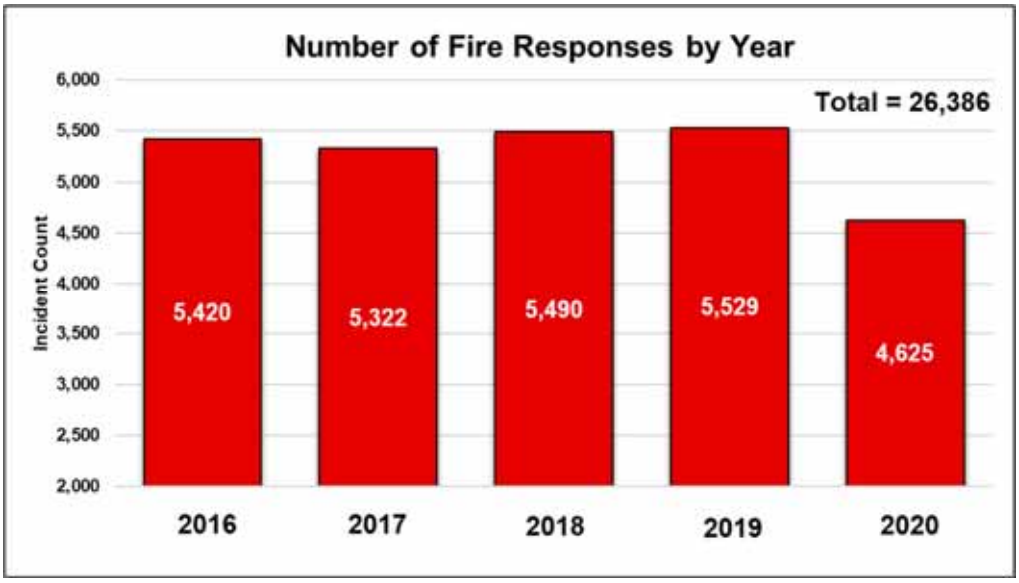
The Cherry Hill Fire Department was designated as a Class 1 Fire Department in August 2016 by the Insurance Services Office. This program provides a standard of objectives that determines the level of fire protection in a community.

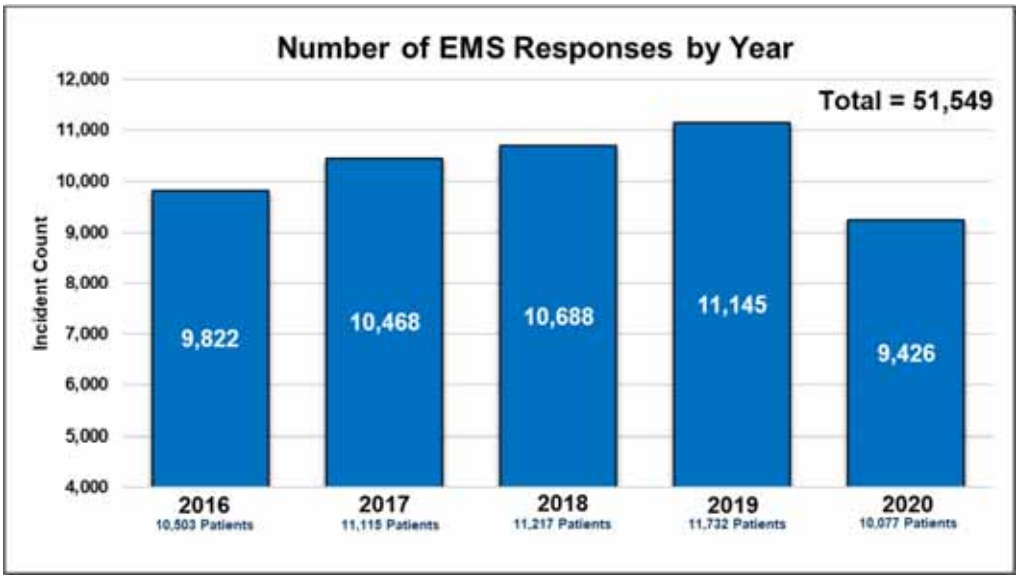


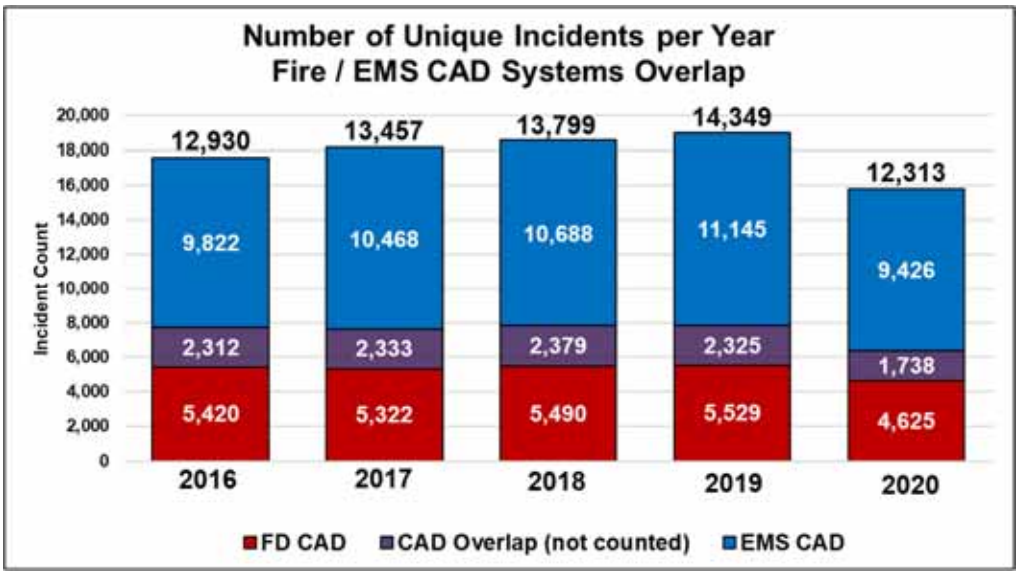
Overall System Workload

Before a full response performance analysis is conducted, it is important to examine the level of workload (service demand) that a fire department experiences. Higher service demands can strain the resources of a department and may have a negative effect on response time performance.

The following figures show response workload for five (5) previous calendar years. Incidents responded to by fire apparatus and EMS units are represented below. The responses are presented separately because the CAD system that the Camden County Communications Center used has different outputs for both fire and EMS services. This is reflective of NJ requirements to use EMS charts as the primary reporting software for the entire state. EMS charts is not used for any other dispatches or records management for other types of calls for service.







Number of Unique Incidents per Year from Split CAD Systems

	2016	2017	2018	2019	2020	Total
FD CAD	5,420	5,322	5,490	5,529	4,625	26,386
EMS CAD	9,822	10,468	10,688	11,145	9,426	51,549
Total	15,242	15,790	16,178	16,674	14,051	77,755
CAD Overlap	2,312	2,333	2,379	2,325	1,738	10,907
Total Unique Incidents	**12,930**	**13,457**	**13,799**	**14,349**	**12,313**	**66,848**

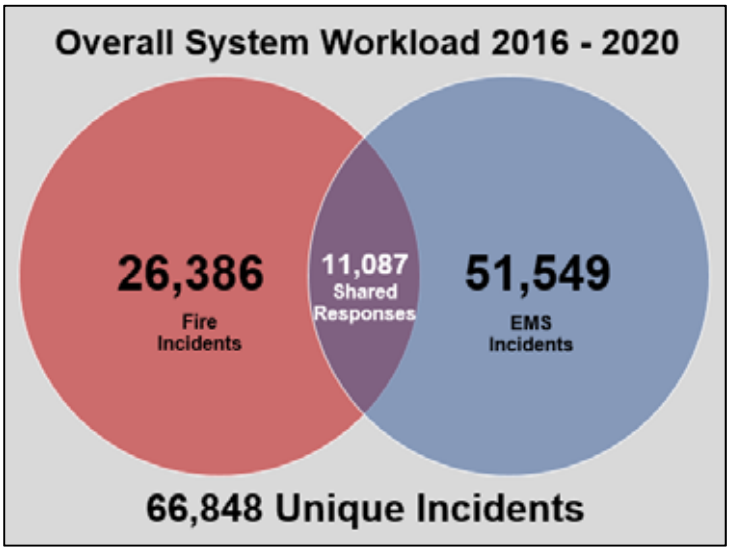
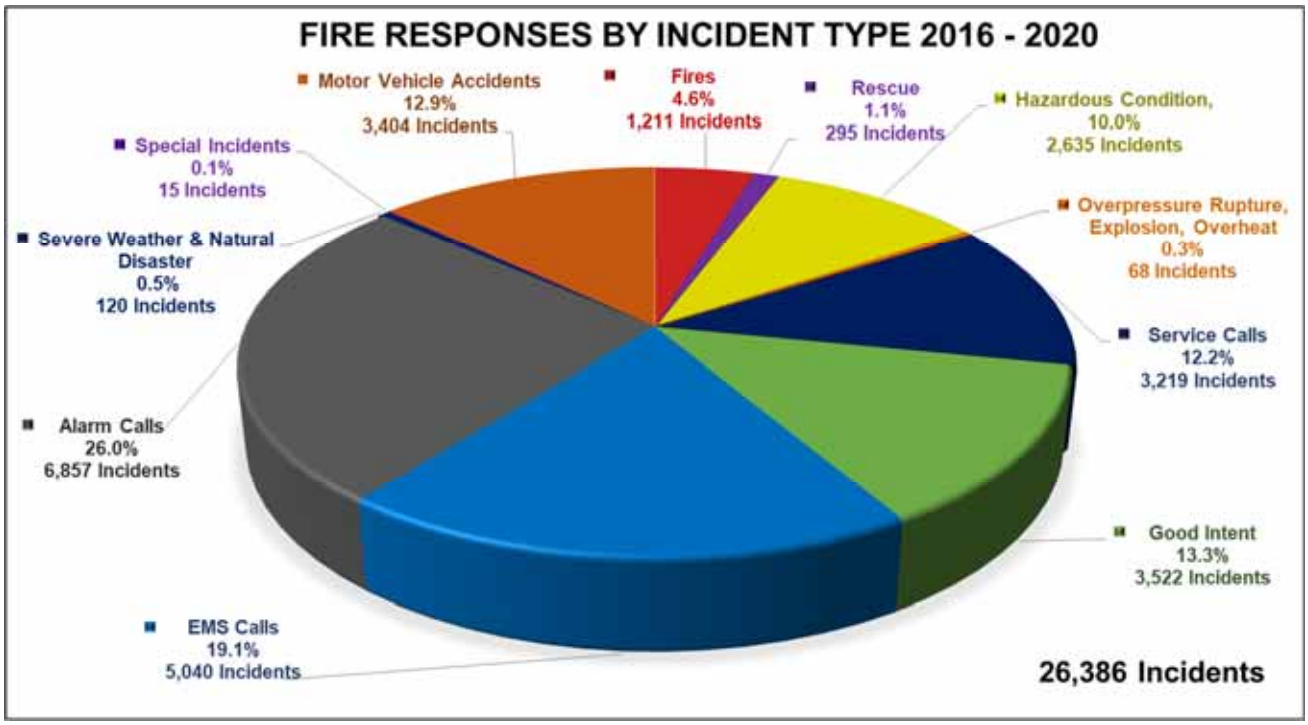


Figure: System Workload by Type of Incident –5 Year Study Period 2016 – 2020



EMS Responses by Incident Type 2016-2020

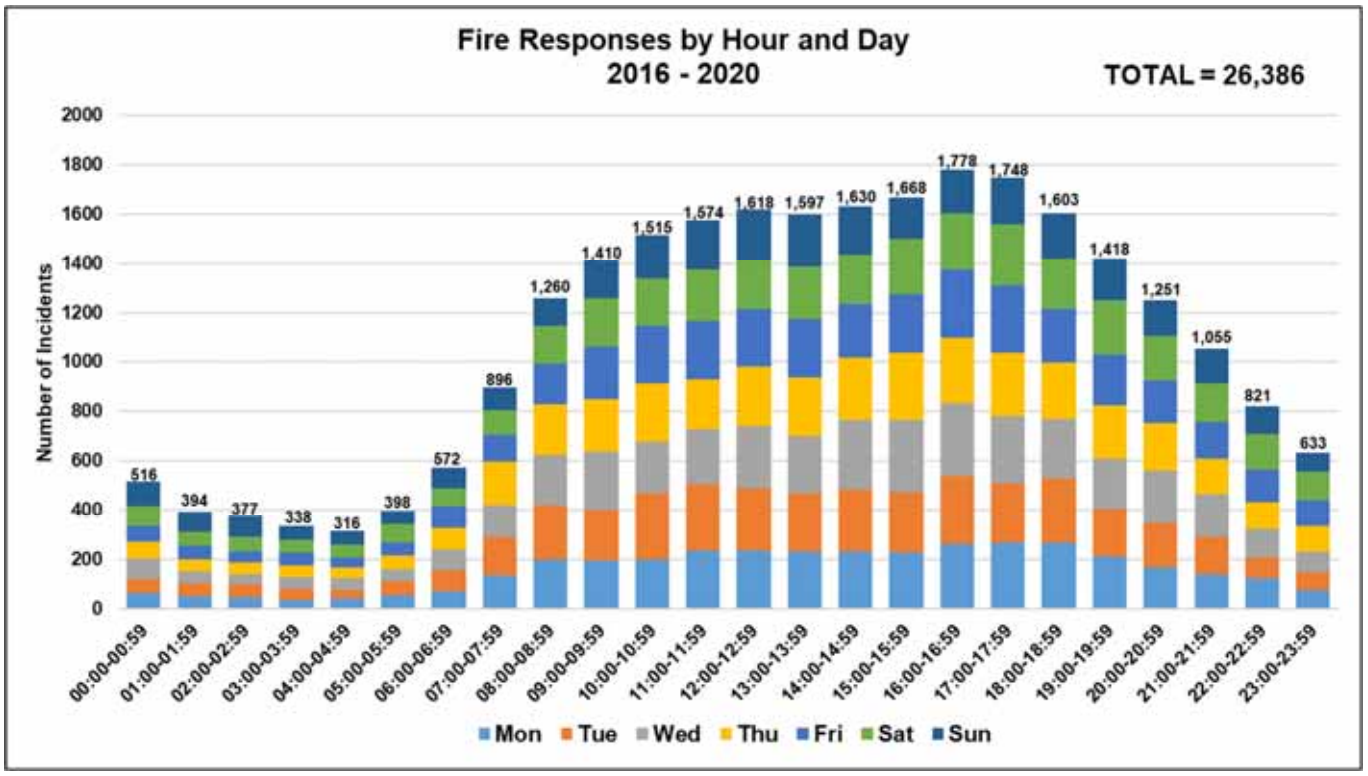
EMS Incident Type	Count	Percent	EMS Incident Type	Count	Percent
MED EMERGENCY	11,240	21.8%	ALARM SYSTEM	16	0.03%
FALL VICTIM	7,665	14.9%	STABBING	16	Less than 0.1%
RESPIRATORY EMERG	5,216	10.1%	OCC VEHL IN WATER	13	Less than 0.1%
CARDIAC EMERGENCY	4,647	9.0%	HAZ MAT	12	Less than 0.1%
UNCONSCIOUS	4,014	7.8%	VEHICLE	10	Less than 0.1%
M.V.A	3,683	7.1%	FALL/TRAUMA	9	Less than 0.1%
PSYCH EMERGENCY	2,192	4.3%	GUN SHOT	7	Less than 0.1%
BLEEDING	2048	4.0%	TRANSPORT	5	Less than 0.1%
CVA	1560	3.0%	ADMIN/NOTIFY	4	Less than 0.1%
ABDOMINAL PAIN	1284	2.5%	ALLERGIC/MINOR	5	Less than 0.1%
MED ALARM	1223	2.4%	SHED/OUTER BLDG	4	Less than 0.1%
SEIZURES	1168	2.3%	COVER	3	Less than 0.1%
SICK PERSON	757	1.5%	INDUSTRIAL ACCID	3	Less than 0.1%
CARDIAC ARREST	615	1.2%	INVEST/AP/AL/HEAT	3	Less than 0.1%
DIABETIC	575	1.1%	TREE LIMB DOWN	3	Less than 0.1%
DWELLING	486	0.94%	WATER RESCUE	3	Less than 0.1%
ASSAULT	457	0.89%	WIRES/OCC VEHL	3	Less than 0.1%
OVERDOSE	384	0.74%	ADMIN / NOTIFY	2	Less than 0.1%
FRACTURE	362	0.70%	APPARATUS ACCIDENT	2	Less than 0.1%
ALLERGIC	258	0.50%	BOMB THREAT	2	Less than 0.1%
RESCUE	253	0.49%	BRUSH	2	Less than 0.1%
BUILDING	241	0.47%	BURN/MINOR	2	Less than 0.1%
MISCELLANEOUS	209	0.41%	HIWAY HAZARD	2	Less than 0.1%
PED MVA	205	0.40%	RESCUE POOL / POND	2	Less than 0.1%
MATERNITY	112	0.22%	TECH RESCUE	2	Less than 0.1%
INCIDENTAL	90	0.17%	WIRES/BURNING	2	Less than 0.1%
INVEST CO DETECTOR	84	0.16%	ANIMAL RESCUE	1	Less than 0.1%
APARTMENT	83	0.16%	COMMUNITY SERVICE	1	Less than 0.1%
SEIZURE/NOT ACTIVE	57	0.11%	DROWNING	1	Less than 0.1%
NAT GAS RELEASE	46	0.09%	FIRE POLICE	1	Less than 0.1%
RESPIRATORY ARREST	46	0.09%	HEMORRHAGE	1	Less than 0.1%
MIS CARR	42	0.08%	MV STOP MOVING	1	Less than 0.1%
BURN VICTIM	31	0.06%	PROPANE GRILL	1	Less than 0.1%
HIGH RISE	26	0.05%	RELOCATE	1	Less than 0.1%
INTERIOR FUMES	22	0.04%	SHED / OUTER BLDG	1	Less than 0.1%
MISC	22	0.04%			
TOTAL = 51,549					

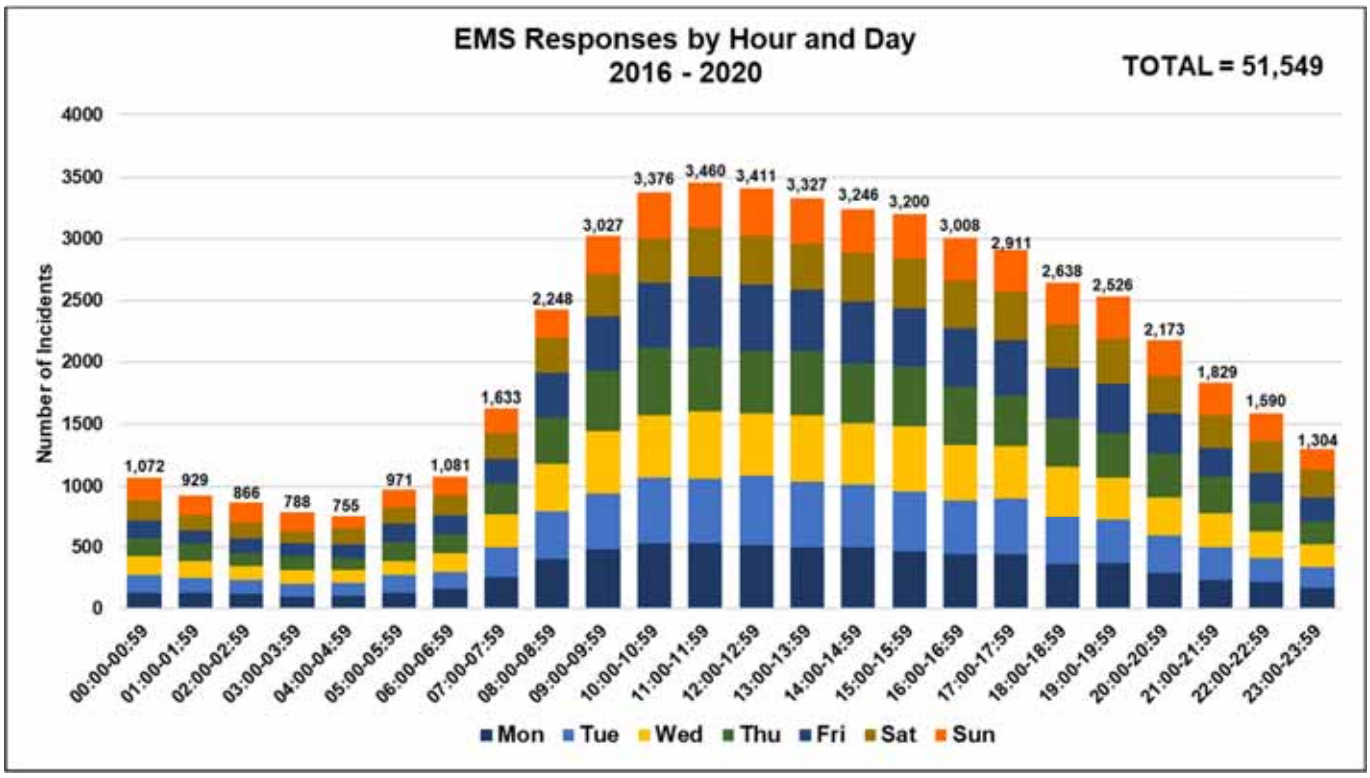
TEMPORAL ANALYSIS

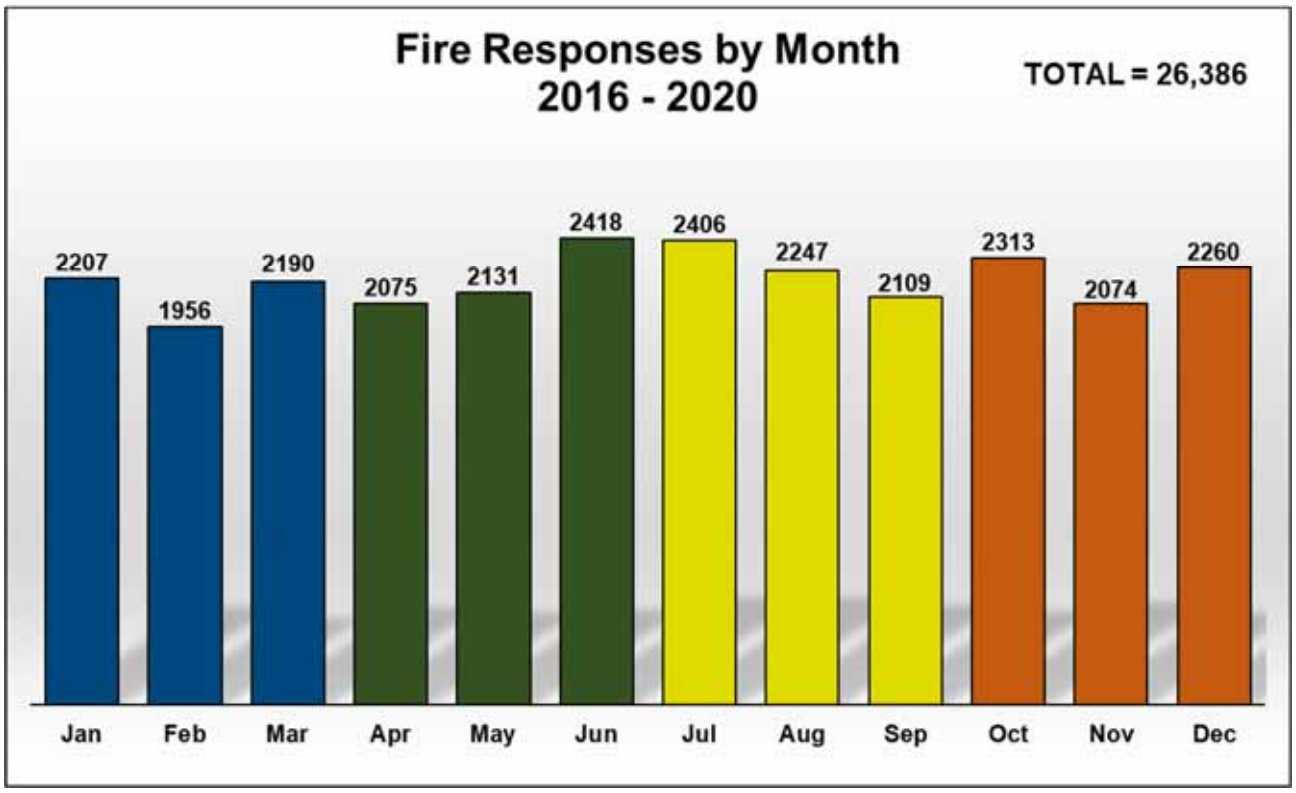
A review of incidents by time of occurrence reveals much about response demand. The following figures show how activity and demand changes for the CHFD based on various measures of time. The following figure shows response activity for the study period by time of day. This analysis shows a trend of incidents starting at 07:00 and peaking at 17:00 and then gradually decreasing until midnight.

Next, response workload is compared by month. In this case, there is a marked activity increase in July and October. This has been a reflective trend for the CHFD associated with the change of seasons.

Figure: Monthly Workload – 5 Year Study Period 2016-2020




EMS Responses by Hour and Day
2016 - 2020
TOTAL = 51,549
Number of Incidents
4000
3500
3000
2500
2000
1500
1000
500
0
1,072
929
866
788
755
971
1,081
1,633
2,248
3,027
3,376
3,460
3,411
3,327
3,246
3,200
3,008
2,911
2,638
2,526
2,173
1,829
1,590
1,304
00:00-00:59
01:00-01:59
02:00-02:59
03:00-03:59
04:00-04:59
05:00-05:59
06:00-06:59
07:00-07:59
08:00-08:59
09:00-09:59
10:00-10:59
11:00-11:59
12:00-12:59
13:00-13:59
14:00-14:59
15:00-15:59
16:00-16:59
17:00-17:59
18:00-18:59
19:00-19:59
20:00-20:59
21:00-21:59
22:00-22:59
23:00-23:59
Mon
Tue
Wed
Thu
Fri
Sat
Sun


Fire Responses by Month
2016 - 2020
TOTAL = 26,386
2207
1956
2190
2075
2131
2418
2406
2247
2109
2313
2074
2260
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

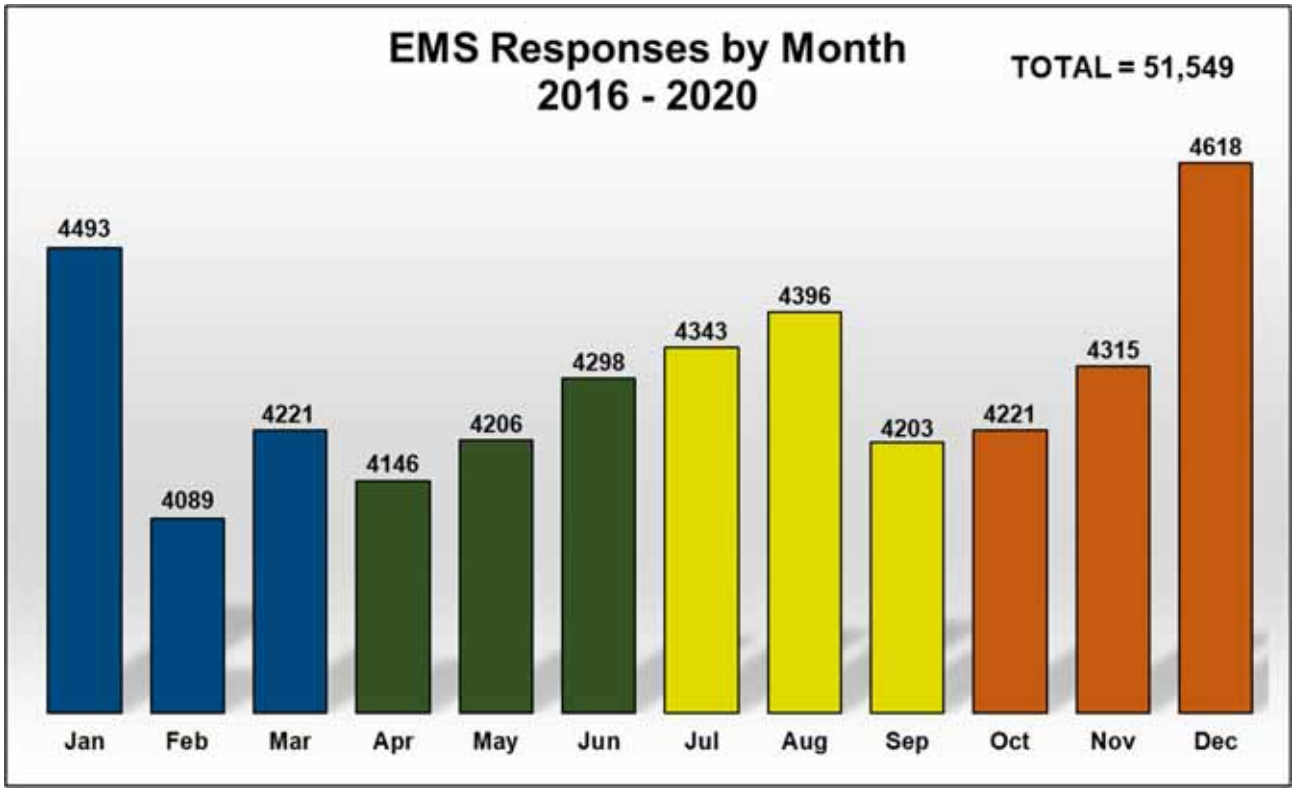
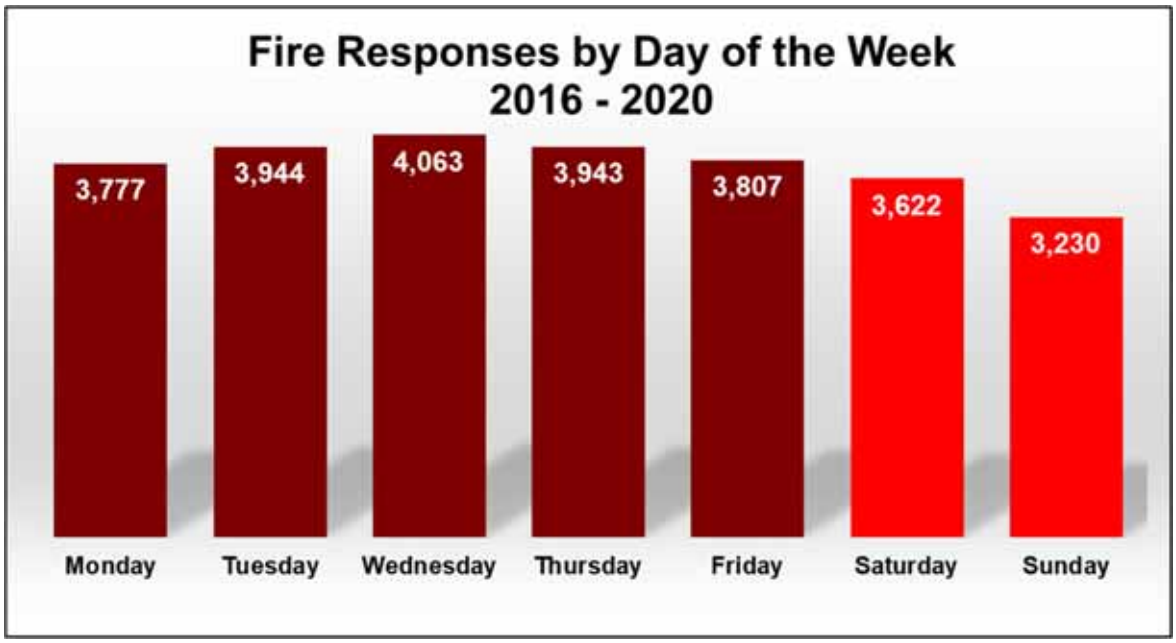
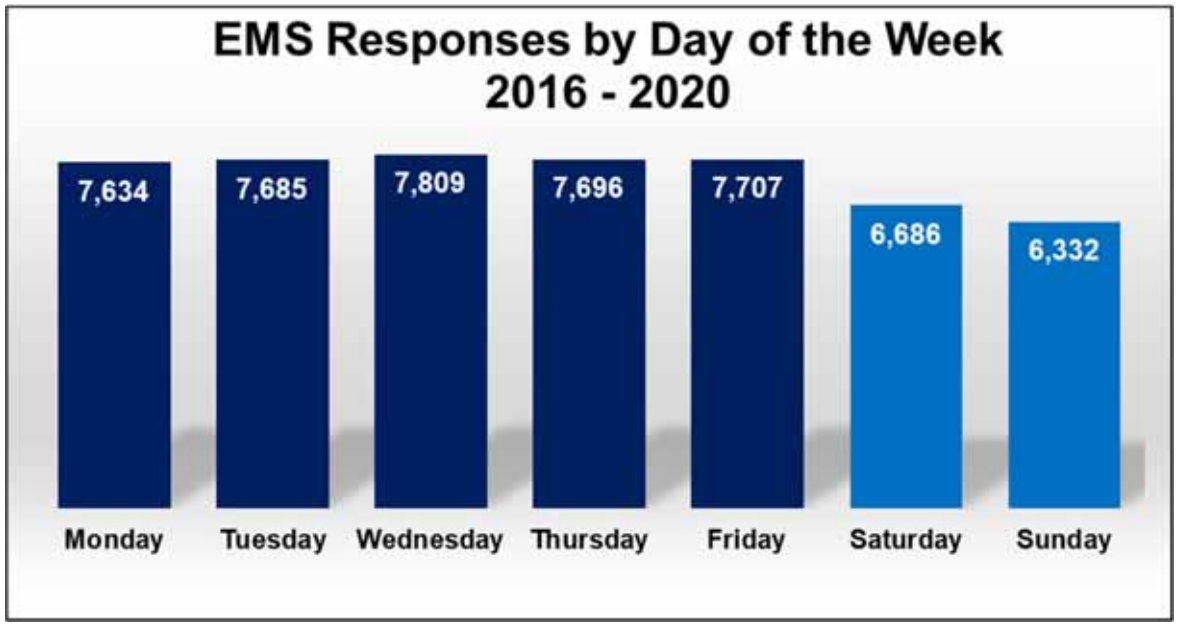

EMS Responses by Month
2016 - 2020
TOTAL = 51,549
4493
4089
4221
4146
4206
4298
4343
4396
4203
4221
4315
4618
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Figure: Daily Workload – 5 Year Study Period 2016-2020



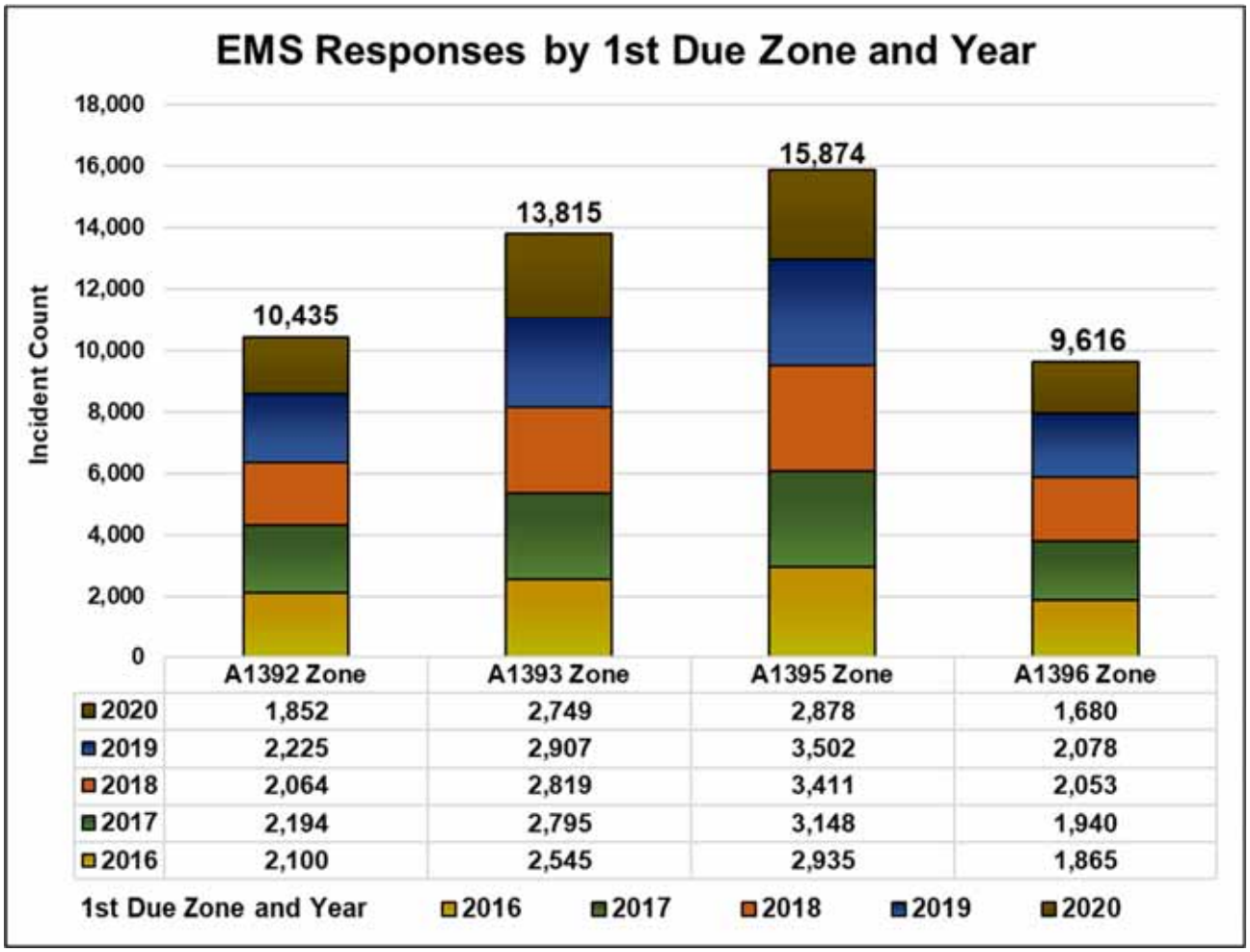


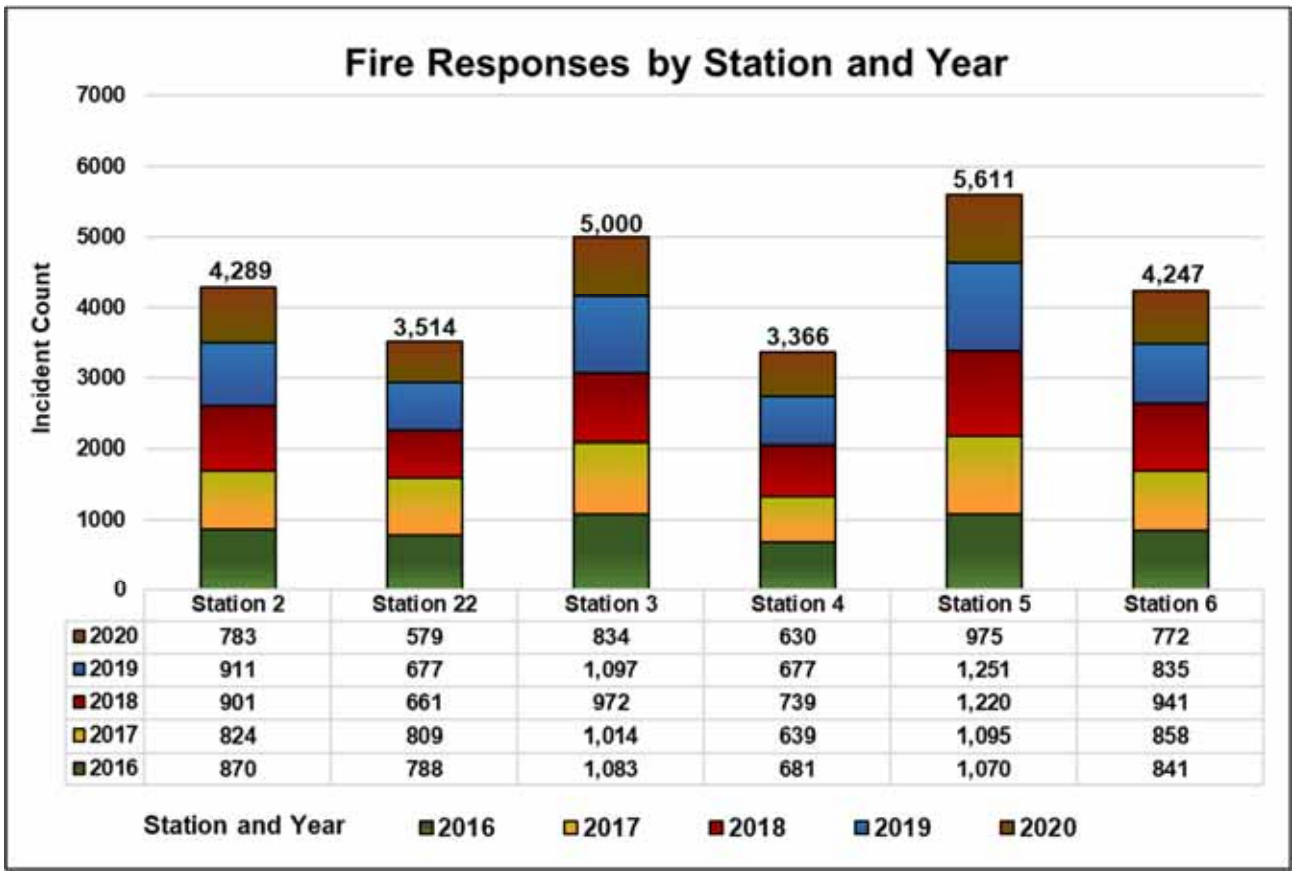
SPATIAL ANALYSIS – FIRE RESPONSE ZONES

In addition to the temporal analysis of the current service demand, it is useful to examine geographic distribution of service demand. The following figure series indicates the distribution of emergency incidents in Cherry Hill during the study period from Stations 22, 24, 3, 4, 5, and 6. The spatial analysis provided reflects the workload as distributed between stations. The least incidents occur in response locals that are predominantly residential.

Figure: Incidents by station – 5 Year Study Period 2016-2020

The following chart represents the distribution of EMS incidents by first due response local. The EMS response locals are somewhat different than the fire locals; therefore, a separate evaluation for BLS unit response by area is warranted. The charts depict a workload by zone that is consistent from year to year.





The preceding figure reflects all calls served by CHFD. Service demand can vary by area based on incident type. The following figures display a heat map showing the location of all responses for the 5-year period of 2016-2020. The highest densities of calls for service (hot zones) are along the Route 70 and Route 38 corridors.

Figure: Calls – 5 Year Study Period Fire Response Heat Map

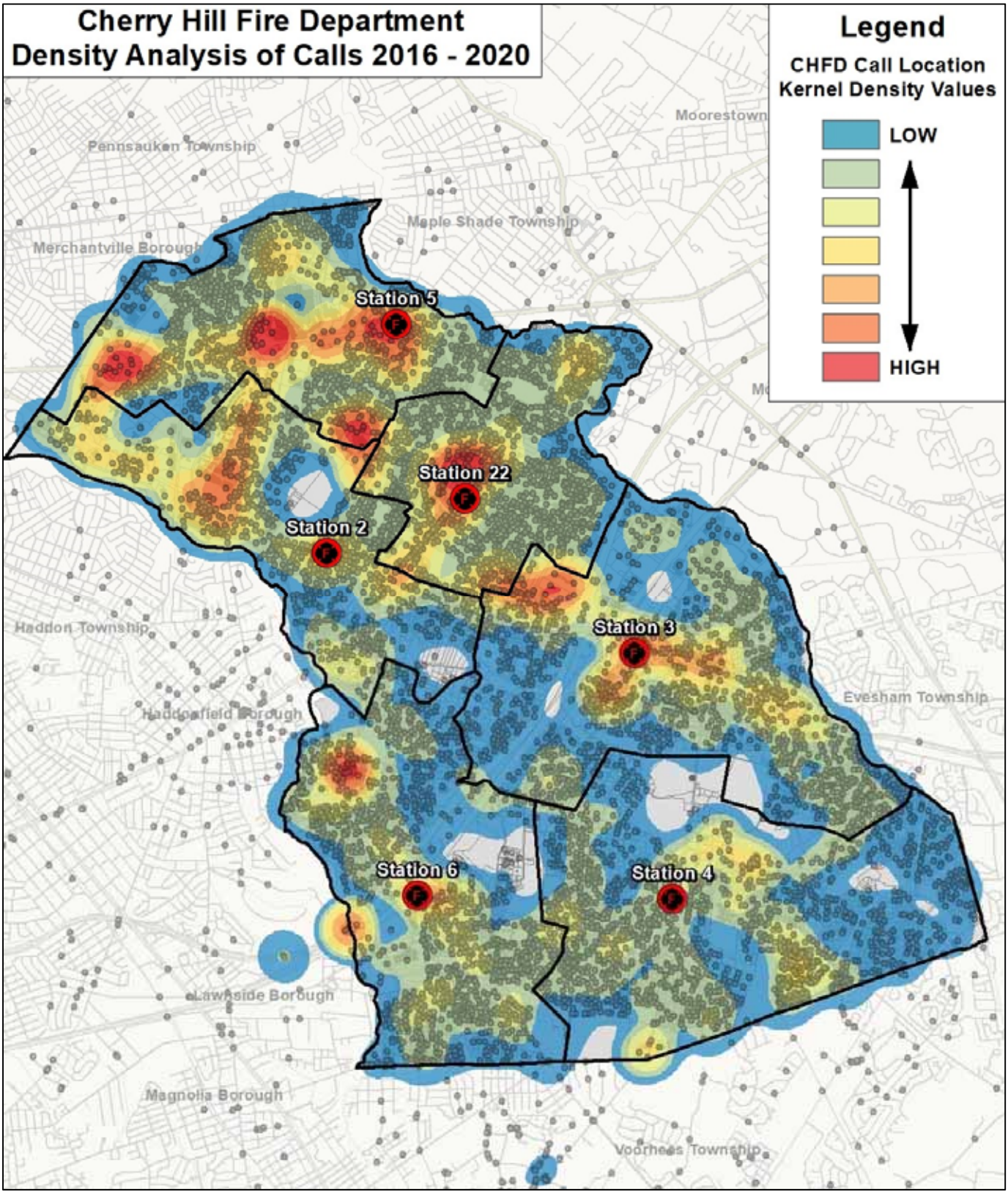
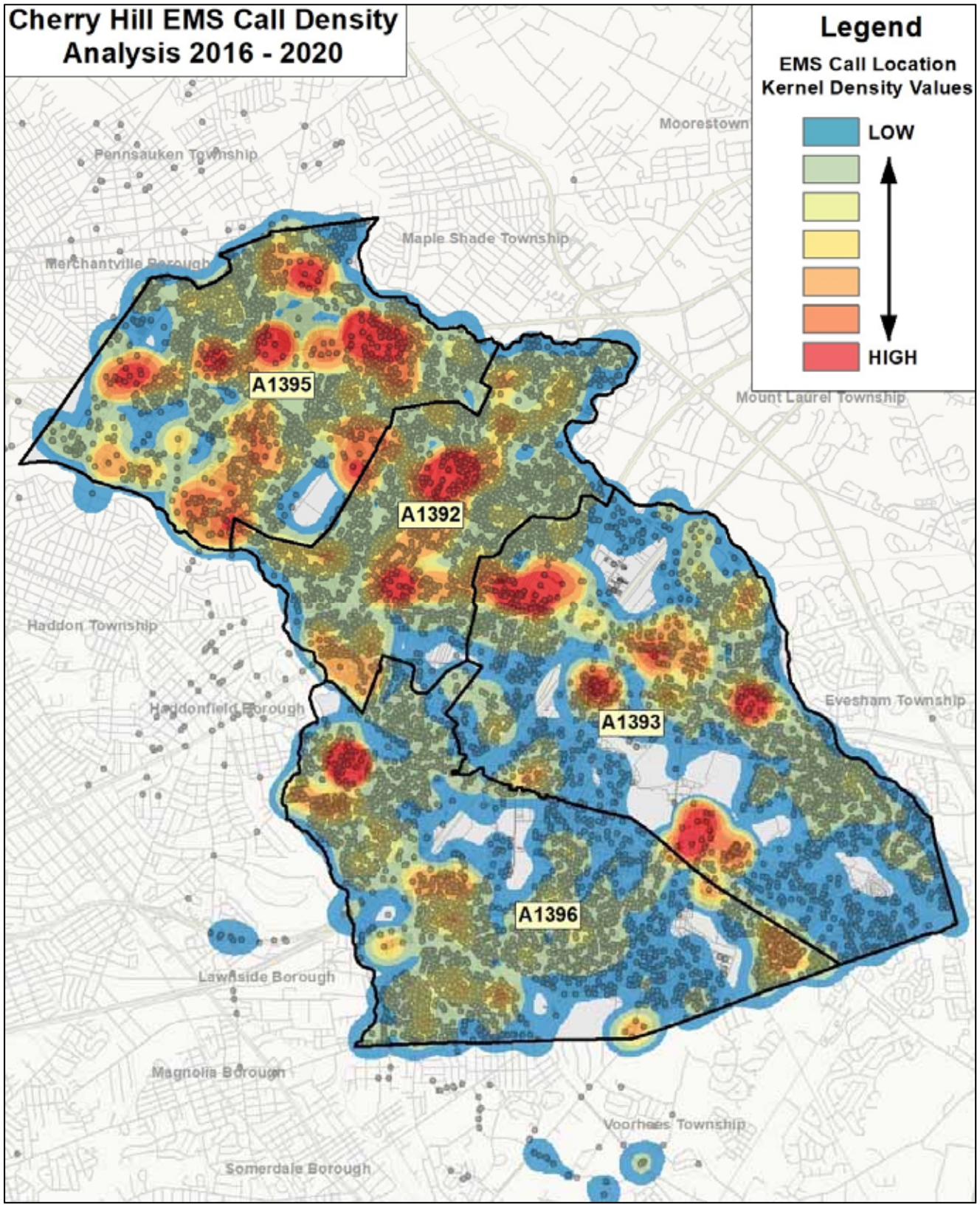


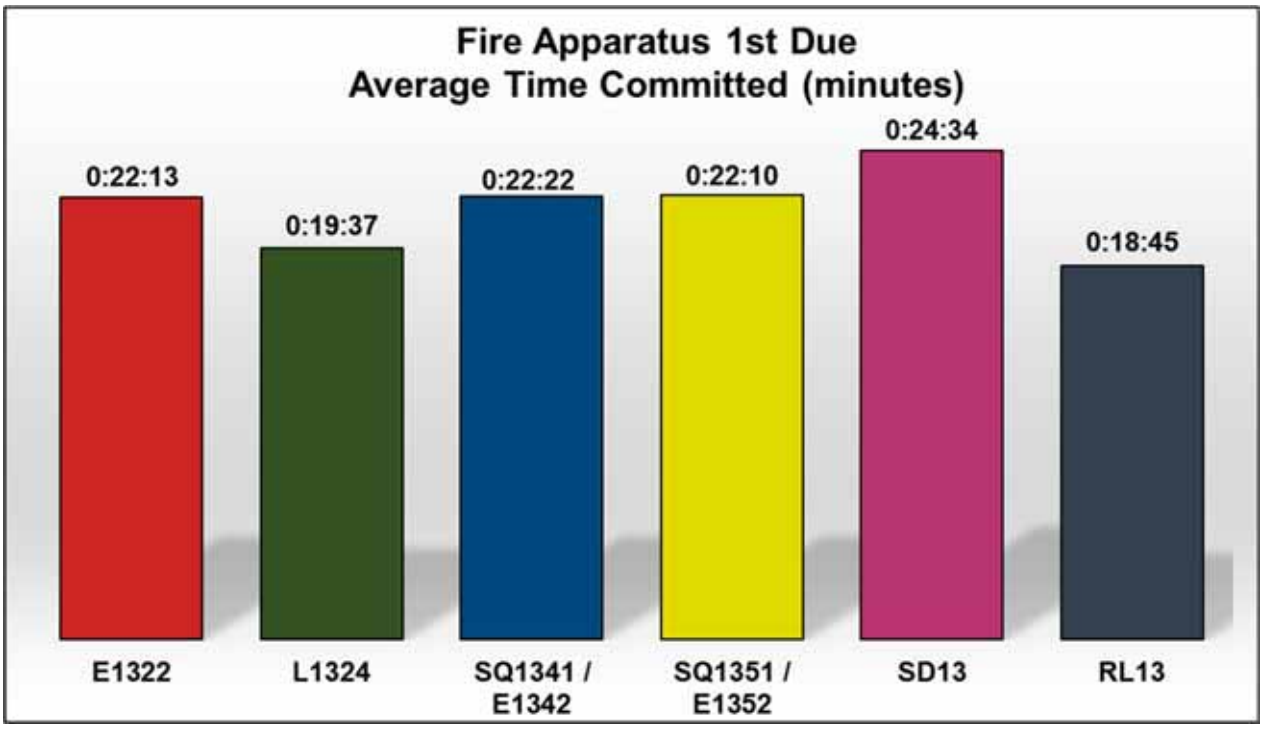
Figure: Calls – 5 Year Study Period EMS Response Heat Map

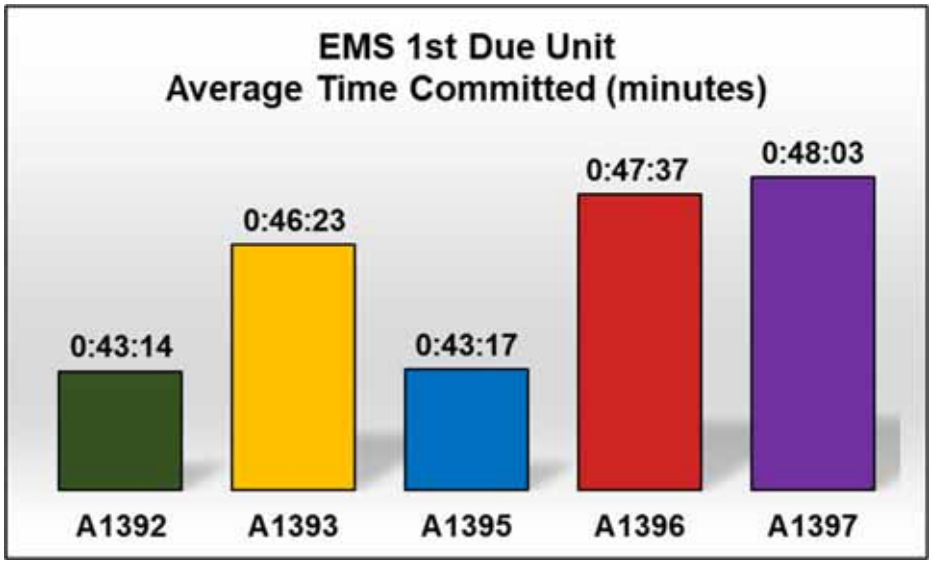


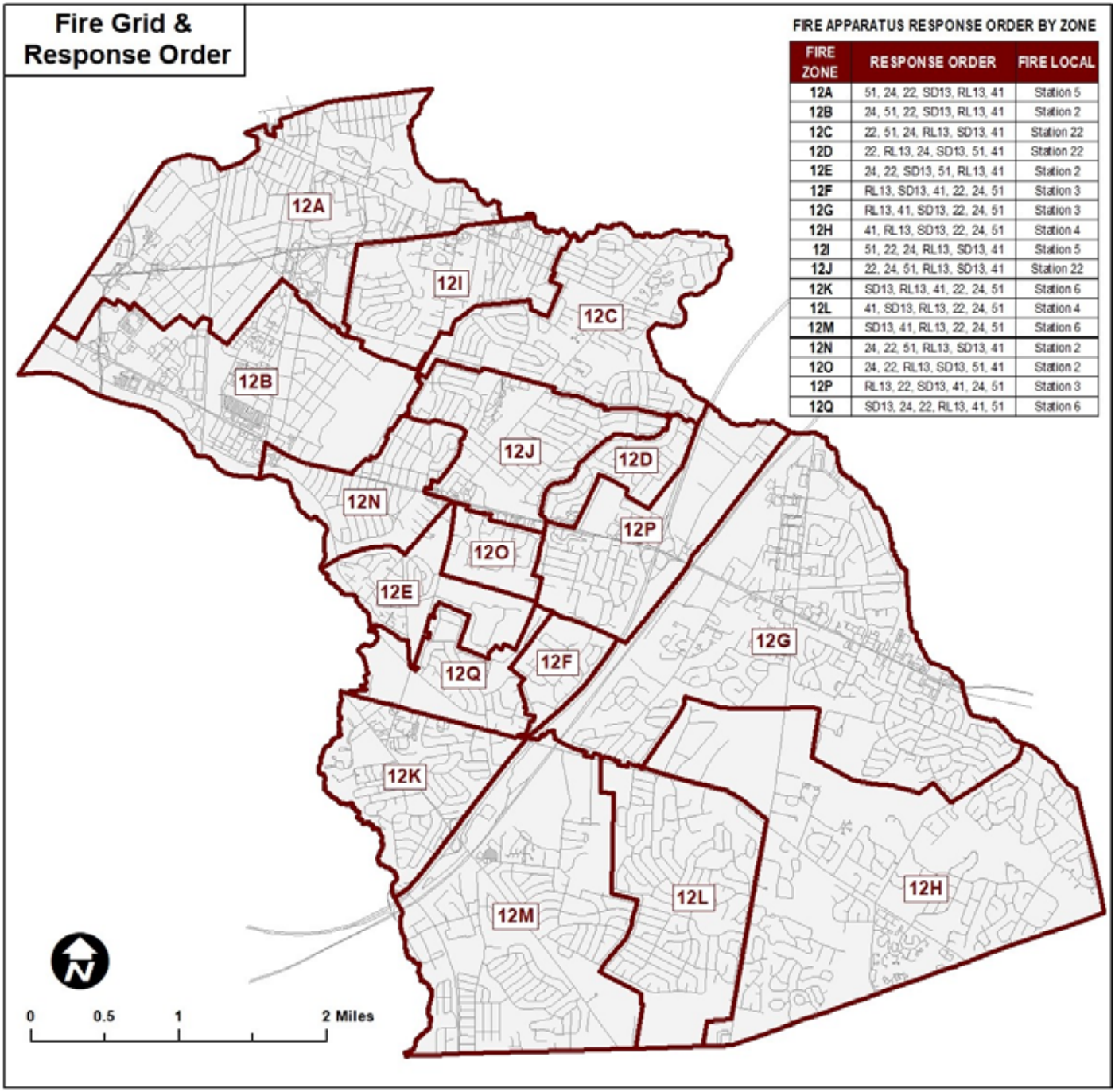
The amount of time a given unit is committed to an incident is also an important workload factor. The following figure illustrates the average time each unit was committed to an incident from initial dispatch until it cleared the scene. Service times are consistent among emergency units.

The emergency service companies have a consistent time on location. One anomaly identified was the time committed by ambulances from the east battalion were significantly longer than times committed by west battalion ambulances. This can be attributed to the significant mileage increase to reach the nearest hospitals and reflective time it takes to return to their response area.

Figure: Average Time Committed to an Incident by Unit in minutes

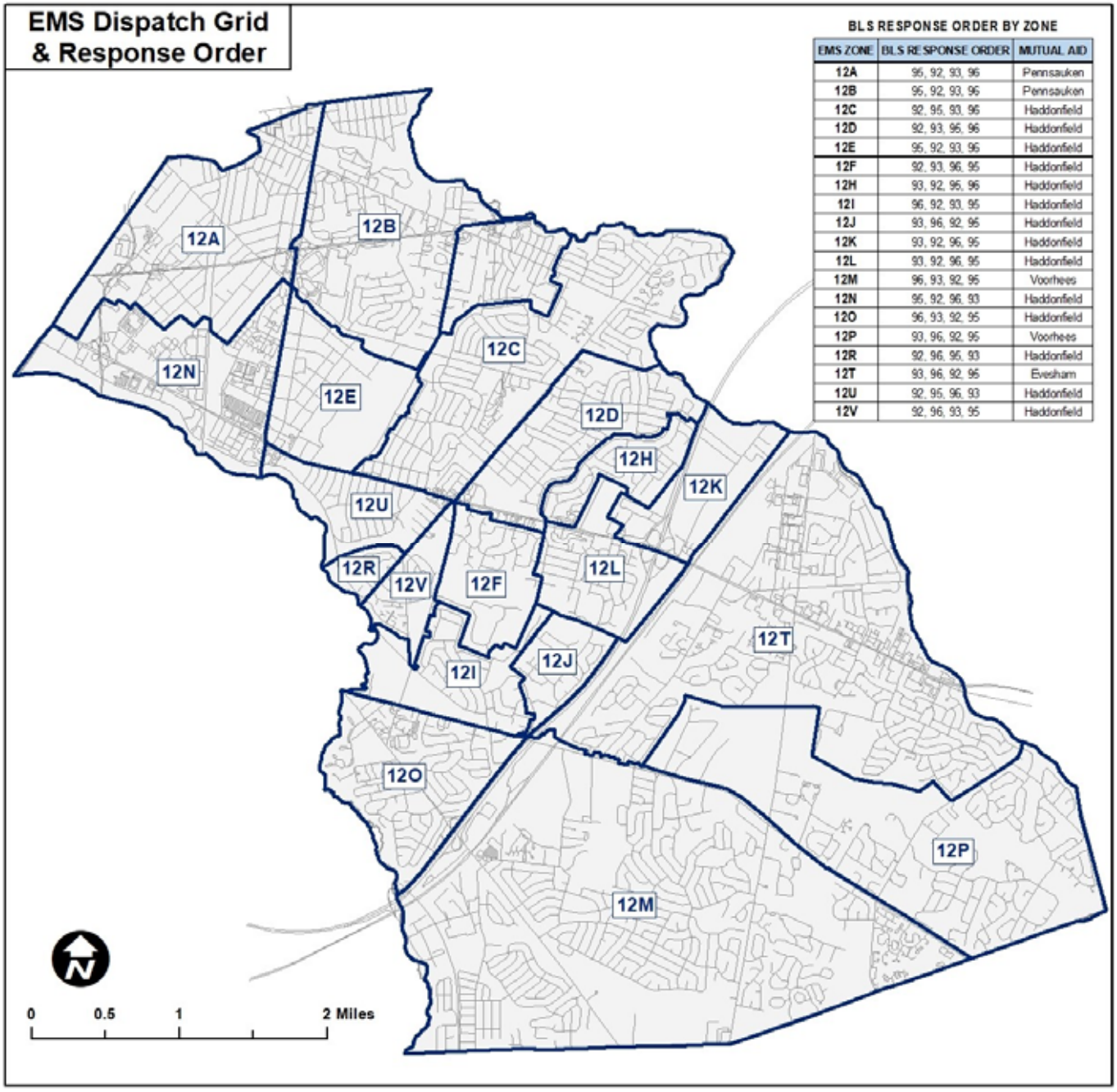






FIRE APPARATUS RESPONSE ORDER BY ZONE

FIRE ZONE	RESPONSE ORDER	FIRE LOCAL
12A	51, 24, 22, SD13, RL13, 41	Station 5
12B	24, 51, 22, SD13, RL13, 41	Station 2
12C	22, 51, 24, RL13, SD13, 41	Station 22
12D	22, RL13, 24, SD13, 51, 41	Station 22
12E	24, 22, SD13, 51, RL13, 41	Station 2
12F	RL13, SD13, 41, 22, 24, 51	Station 3
12G	RL13, 41, SD13, 22, 24, 51	Station 3
12H	41, RL13, SD13, 22, 24, 51	Station 4
12I	51, 22, 24, RL13, SD13, 41	Station 5
12J	22, 24, 51, RL13, SD13, 41	Station 22
12K	SD13, RL13, 41, 22, 24, 51	Station 6
12L	41, SD13, RL13, 22, 24, 51	Station 4
12M	SD13, 41, RL13, 22, 24, 51	Station 6
12N	24, 22, 51, RL13, SD13, 41	Station 2
12O	24, 22, RL13, SD13, 51, 41	Station 2
12P	RL13, 22, SD13, 41, 24, 51	Station 3
12Q	SD13, 24, 22, RL13, 41, 51	Station 6



BLS RESPONSE ORDER BY ZONE

EMS ZONE	BLS RESPONSE ORDER	MUTUAL AID
12A	95, 92, 93, 96	Pennsauken
12B	95, 92, 93, 96	Pennsauken
12C	92, 95, 93, 96	Haddonfield
12D	92, 93, 95, 96	Haddonfield
12E	95, 92, 93, 96	Haddonfield
12F	92, 93, 96, 95	Haddonfield
12H	93, 92, 95, 96	Haddonfield
12I	96, 92, 93, 95	Haddonfield
12J	93, 96, 92, 95	Haddonfield
12K	93, 92, 96, 95	Haddonfield
12L	93, 92, 96, 95	Haddonfield
12M	96, 93, 92, 95	Voorhees
12N	95, 92, 96, 93	Haddonfield
12O	96, 93, 92, 95	Haddonfield
12P	93, 96, 92, 95	Voorhees
12R	92, 96, 95, 93	Haddonfield
12T	93, 96, 92, 95	Evesham
12U	92, 95, 96, 93	Haddonfield
12V	92, 96, 93, 95	Haddonfield

CRITICAL TASKING AND ALARM ASSIGNMENTS

The CHFD service area has a densely populated urban environment and, as such, contains an elevated number, density, and distribution of risk. The fire department should have the resources needed to effectively mitigate the incidents that have the highest potential to negatively impact the community. As the actual or potential risk increases, the need for higher numbers of personnel and apparatus also increases. With each type of incident and corresponding risk, specific critical tasks need to be accomplished and certain numbers and types of apparatus should be dispatched. This section considers the community's identified risks and illustrates the number of personnel that are necessary to accomplish the critical tasks at an emergency.

Tasks that must be performed at a fire can be broken down into two key components: life safety and fire flow. Life safety tasks are based on the number of building occupants and their location, status, and ability to take self-preservation action. Life safety-related tasks involve the search, rescue, and evacuation of victims. The fire flow component involves delivering sufficient water to extinguish the fire and create an environment within the building that allows entry by firefighters.

The number and types of tasks that need simultaneous action will dictate the minimum number of firefighters required to combat different types of fires. In the absence of adequate personnel to perform concurrent action, the command officer must prioritize the tasks and assign resources as appropriate. The critical tasks are:

- Command
- Scene safety
- Search and rescue
- Fire attack
- Water supply
- Pump operation
- Ventilation
- Backup/rapid intervention

Critical task analysis also applies to non-fire type emergencies including medical, technical rescue, and hazardous materials emergencies. Numerous simultaneous tasks must be completed to effectively control an emergency. The department's ability to muster needed numbers of trained personnel quickly enough to make a difference is critical to successful incident outcomes.

The following figure illustrates the emergency incident staffing recommendations of the Commission on Fire Accreditation International. The following definitions apply to the figure:

- **Low Risk** – Minor incidents involving small fires such as automobiles, a back yard shed, brush (fire flow less than 250 gallons per minute), a single patient with a non-life threatening medical emergency, minor motor vehicle accidents and small fuel spills.
- **Moderate Risk** – Moderate risk incidents involving fires in single-family dwellings and equivalently sized commercial office properties, larger vehicles (fire flow between 250 gallons per minute to 1,000 gallons per minute), life threatening medical emergencies, hazardous materials emergencies requiring specialized skills and equipment, rescues involving specialized skills and equipment, and medium sized brush fires.
- **High Risk** – High risk incidents involving fires in high rise buildings, nursing homes, larger commercial properties (fire flows more than 1,000 gallons per minute), multiple patient medical incidents, major releases of hazardous materials, high risk rescues such as high angle, trench and confined space, and larger brush fires.

Figure 50: Staffing Recommendations Based on Risk

Incident Type	High Risk	Moderate Risk	Low Risk
Structure Fire	21	13	4
Emergency Medical Service	18	4	2
Rescue	23	13	4
Hazardous Materials	23	13	4

COMPONENT F – PERFORMANCE OBJECTIVES AND MEASUREMENT

Incident data for the time period January 1, 2016 through December 31, 2020 (study period) was evaluated in detail to determine CHFD's current performance. Data was obtained from the Camden County Communications CAD. Only incidents that were dispatched as a priority 1 incident are included in the analysis. Priority 1 incidents involve emergencies to which the fire department responded using warning lights and sirens. The CHFD also responds to non-emergent incidents without lights and sirens for the safety of our personnel and general public as outlined in Operational Guideline 2412.

Areas of higher fire risk require greater numbers of personnel and apparatus to effectively mitigate emergencies. Areas with a higher incident activity requires additional response units to ensure reliable response.

Most communities contain areas with different population densities and property risk allowing the community's policy makers to specify different response performance objectives by geographic area. The Township of Cherry Hill shows little difference in population density throughout the town. The Commission on Fire Accreditation International defines the categories as:

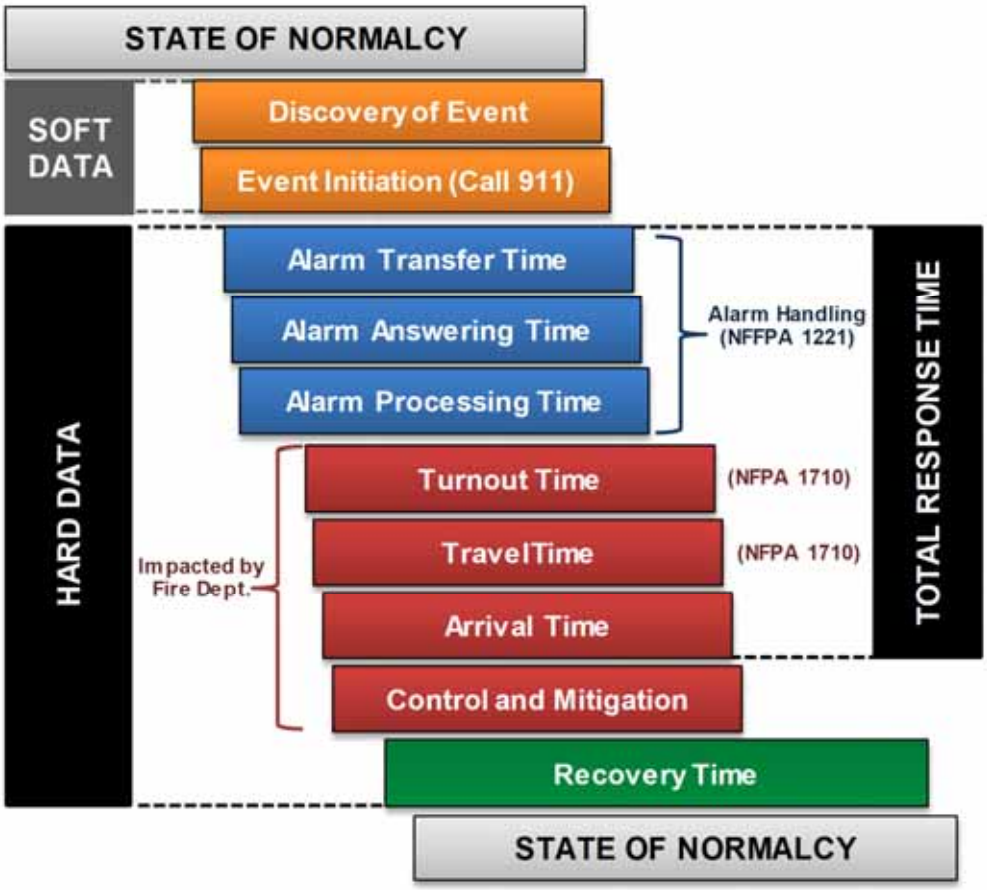
- **Metropolitan**—Geography with populations of over 200,000 people in total and/or a population density of over 3,000 people per square mile. These areas are distinguished by mid-rise and high-rise buildings, often interspersed with smaller structures.
- **Urban**—Geography with a population of over 30,000 people and/or a population density of over 2,000 people per square mile.
- **Suburban**—Geography with a population of 10,000 to 29,999 and/or a population density of between 1,000 and 2,000 people per square mile.
- **Rural**—Geography with a total population of less than 10,000 people or with a population density of less than 1,000 people per square mile.

- **Wilderness/Frontier/Undeveloped**—Geography that is both rural and not readily accessible by a publicly or privately maintained road.

The Township of Cherry Hill, based on population density, is considered urban by the CFAI due to the population of over 30,000 and a population density of over 2000 people per square mile.

CASCADE OF EVENTS

Each event begins with a change in what is considered normal. At the point in time when the event initiates the clock or cascade of events begins until the state of normal is returned. In order to get the needed assets to the emergency in time to make a positive impact, those assets need to be properly distributed as well as concentrated within the community. Enough assets, including emergency communications operators, are needed to handle the volume of alarms. Each time stamp included in the cascade of events allows the agency the opportunity to assess and benchmark its performance. Most data points within the cascade are monitored within the CAD system. While human intervention is required for all hard data calculations, the data that is collected can be considered accurate and valid. The following sections assess each hard data point monitored on the cascade of events.



Each phase of the incident response sequence was evaluated to determine current performance. This allows an analysis of each individual phase to determine where opportunities might exist for improvement. Current performance is compared to CHFD's response performance objectives and the response performance goals recommended in Component I. In accordance with CHFD's performance objectives and in keeping with National Fire Protection Association Standard 1710, all response time elements are reported at the 90th percentile. Percentile (fractile) reporting is a methodology by which response times are sorted from least to greatest, and a "line" is drawn at a certain percentage of the calls to determine the percentile. The point at which the "line" crosses the 90th percentile is the percentile time performance. Thus, 90% of times were at or less than the result. Only 10% were longer. While the benchmark goals are a reflection of NFPA 1710, the baseline acceptable deviation is as recommended by CFAI in the Fire and Emergency Services Self-Assessment Manual 8th Edition (FESSAM).

DETECTION

The detection of a fire or other emergency may occur immediately if someone happens to be present, or if an automatic system is functioning. Otherwise, detection may be delayed, sometimes for a considerable period. The time period for this phase begins with the inception of the emergency and ends when the emergency is detected. It is largely outside the control of the fire department and not a part of the event sequence that is reliably measurable.

CALL PROCESSING (ALARM HANDLING)

Today most emergency incidents are reported by telephone to the 9-1-1 PSAP or ASAP. Call takers must quickly elicit accurate information through a structured interrogation of the caller. This phase typically begins when the 9-1-1 call is answered at the dispatch center and ends when response personnel are notified of the emergency. This phase is labeled "call processing time." The CHFD does not have direct control of the call processing that is performed by the Camden County Communications Center.

Best Practice Benchmark

CHFD's current NFPA 1710 performance Benchmark for call processing time is within 60 seconds, 90% of the time. CHFD does not have direct control over dispatch as we are dispatched from a remote location by the Camden County Communications Center.

CHFD BENCHMARK

CHFD's benchmark goal for call handling is within 1 minute 30 seconds 90% of the time. The following reflects actual performance of the 9-1-1 system for level 1 calls for service in the core services provided by the CHFD for the previous 5 years. In recognition that the call processing times fall beyond the recommended goals, the organization holds regular meetings with the Camden County Communications Center to discuss improvements and provide input on the CAD system.

Fire	**2:29**
EMS – BLS only	**3:32**
Technical Rescue	**3:12**
Hazardous Materials	**3:05**

TURNOUT TIME

Turnout time is the first of the response phases controllable by the fire department. This phase begins at notification of an emergency in progress by the dispatch center and ends when personnel and apparatus begin movement toward the incident location. Personnel must don appropriate equipment, assemble on the response vehicle, and begin travel to the incident. Good training and proper fire station design can minimize the time required for this step.

Best Practice Benchmark

CHFD's current NFPA 1710 performance benchmark for turnout time is within 80 seconds, 90% of the time for incidents requiring full personal protective equipment and within 60 seconds for ambulance and non-fire incidents turn out time.

CHFD Benchmark

CHFD's current performance benchmark goal for turnout time for level 1 incidents is within 1 minute 30 seconds 90% of the time. The following reflects actual baseline performance of the CHFD in reference to core services for the previous 5 years.

Fire	**1:55**
EMS – BLS only	**1:43**
Technical Rescue	**2:00**
Hazardous Materials	**2:11**

TRAVEL TIME

Travel time is typically the longest of the response phases. The distance between the fire department station and the location of the emergency influences total response time the most. The quality and connectivity of streets, traffic, driver training, geography, and environmental conditions are also factors. This phase begins with initial apparatus

movement towards the incident location and ends when response personnel and apparatus arrive at the emergency's location. The CHFD's response performance goal, four minutes is allowed for travel time to level 1 incidents as per NFPA 1710.

Best Practice Benchmark

The CHFD current NFPA 1710 performance benchmark for travel time of first unit is within 4 minutes 90% of the time from receipt of alarm from the dispatch center.

CHFD Benchmark

The CHFD's performance benchmark goal for 1st due travel time is within 5 minutes 12 seconds 90% of the time from turnout to the arrival of the unit on scene. The following reflects actual performance of the CHFD in reference to core services for the previous 5 years.

Fire	**4:29**
EMS – BLS only	**6:50**
Technical Rescue	**4:47**
Hazardous Materials	**5:32**

The CHFD's response times for incidents outside of fire response are subject to several outside influences.

1. BLS units are not allowed to cross main roads with lights and sirens. This policy was made to prevent accidents while crossing Route 70 and Route 38. These two highways are high speed and congested. In the past, crossing of these roads led to accidents from civilian vehicles attempting to stop or stopping short of the vehicle behind.

2. The BLS units are busy. As noted in another section of this report, BLS units often respond to calls outside their local response area to cover the workload of another busy ambulance. This has led to an increase of staffing and an additional ambulance on the west side of town in 2014. In addition, another peak time ambulance was initiated midway through 2015.

3. The times used for Hazardous Materials response are reflective of a reduced speed, non-emergent response policy. The majority of in town Hazardous Materials incidents are from minor gas leaks and the Hazardous Materials company responded at reduced speed

4. There was not enough technical rescue incidents included in the study to provide statistically significant outcomes. Only 14 calls for service were recorded as the entire first alarm arriving at emergency speed.

TOTAL RESPONSE TIME (FIRST ARRIVING UNIT RECEIVED TO ARRIVAL TIME)

From the customer's standpoint, time begins when the emergency occurs. Their first contact with emergency services is when they call for help, usually by dialing 9-1-1. The combination of call processing time and response time is called received to arrival time, or total response time.

Best Practice Benchmark

The total response time benchmark for CHFD first unit is within six minutes 20 seconds, 90% of the time for fire incidents and within six minutes 0 seconds, 90% of the time for emergency medical incidents in keeping with NFPA 1710.

CHFD Benchmark

The total response time benchmark goal for CHFD first unit is within 8 minutes 12 seconds 90% of the time for level 1 incidents. The following reflects actual performance of the CHFD in reference to core services for the previous 5 years.

Fire	**7:40**
EMS – BLS only	**10:26**
Technical Rescue	**8:35**
Hazardous Materials	**9:01**

CONCENTRATION AND CURRENT EFFECTIVE RESPONSE FORCE CAPABILITY ANALYSIS

Effective Response Force (ERF) is the number of personnel and apparatus required to be present on the scene of an emergency incident to perform the critical tasks in such a manner to effectively mitigate the incident without unnecessary loss of life and/or property. The ERF is specific to each individual type of incident, and is based on the critical tasks that must be performed. Both moderate and high-risk structure fires are used as the primary risk category for this analysis as these present the most frequent type of incidents requiring multiple response units and greater numbers of firefighters assigned to the incident. CHFD currently dispatches three (3) engines, one (1) ladder, one (1) Battalion Chief, and an ambulance to all reported structure fires of moderate risk.

Best Practice Benchmark

For moderate and high-risk incidents, CHFD shall assemble an Effective Response Force (ERF) consisting of personnel sufficient to effectively mitigate the incident based on risk within ten minutes 30 seconds **from receipt of the call at the dispatch center**, 90% of the time.

CHFD Benchmark

For moderate risk incidents, CHFD shall assemble an Effective Response Force (ERF) consisting of personnel sufficient to effectively mitigate the incident based on risk within 13 minutes 24 seconds **from receipt of the call at the dispatch center**, 90% of the time. The following reflects actual performance of the CHFD in reference to core services for the previous 5 years.

Fire	**13:27**
EMS – Includes ALS	**14:39**
Technical Rescue	**12:28**
Hazardous Materials	**13:00**

MODERATE RISK

FIGURE: EFFECTIVE RESPONSE FORCE – FIREFIGHTERS – MODERATE RISK

Structure Fires Low / Moderate Risk		Benchmark Goals at 90th Percentile	CHFD Baseline Goals at 90th Percentile	2016 - 2020	2020	2019	2018	2017	2016
Call Processing	Pick-up to Dispatch	1:00	1:30	2:29 (+0:59)	2:24 (+0:54)	2:13 (+0:43)	1:57 (+0:27)	2:32 (+1:02)	2:32 (+1:02)
Turnout Time	1st Unit	1:20	1:30	1:55 (+0:25)	1:53 (+0:23)	1:56 (+0:26)	1:37 (+0:07)	2:00 (+0:30)	2:11 (+0:41)
Travel Time	1st Unit	4:00	5:12	4:29 (-0:43)	4:04 (-1:08)	3:57 (-1:15)	4:49 (-0:23)	4:29 (-0:43)	5:02 (-0:10)
	ERF - Vehicles	8:00	10:24	11:11 (+0:47)	9:22 (-1:02)	11:11 (+0:47)	12:12 (+1:48)	10:59 (+0:35)	11:54 (+1:30)
Total Response Time	1st Unit	6:20	8:12	7:40 (-0:32)	7:08 (-1:04)	7:23 (-0:49)	7:49 (-0:23)	7:45 (-0:27)	8:50 (+0:38)
	ERF - Vehicles	10:20	13:24	13:27 (+0:03)	11:22 (-2:02)	13:25 (+0:01)	13:27 (+0:03)	14:02 (+0:38)	14:32 (+1:08)
			Level 1 Incident Count 1st Unit:	132	28	34	24	28	18
			Level 1 ERF Incident Count:	68	15	16	14	15	8

TECHNICAL RESCUES

Technical Rescues Low / Moderate Risk		Benchmark Goals at 90th Percentile	CHFD Baseline Goals at 90th Percentile	2016 - 2020	2020	2019	2018	2017	2016
Call Processing	Pick-up to Dispatch	1:00	1:30	3:12 (+1:42)	3:07 (+1:37)	3:25 (+1:55)	3:55 (+2:25)	2:13 (+0:43)	3:04 (+1:34)
Turnout Time	1st Unit	1:20	1:30	2:00 (+0:30)	1:55 (+0:25)	2:30 (+1:00)	1:39 (+0:09)	1:26 (-0:04)	2:04 (+0:34)
Travel Time	1st Unit	4:00	5:12	4:47 (-0:25)	5:08 (-0:04)	4:46 (-0:26)	5:13 (+0:01)	4:49 (-0:23)	4:05 (-1:07)
	ERF - Vehicles	8:00	10:24	9:40 (-0:44)	10:33 (+0:09)	9:40 (-0:44	8:54 (-1:30)	9:07 (-1:17)	9:21 (-1:03)
Total Response Time	1st Unit	6:20	8:12	8:35 (+0:23)	8:55 (+0:43)	10:02 (+1:50)	8:35 (+0:23)	8:16 (+0:04)	7:56 (-0:16)
	ERF - Vehicles	10:20	13:24	12:28 (-0:56)	12:53 (-0:31)	12:08 (-1:16)	12:28 (-0:56)	10:56 (-2:28)	12:23 (-1:01)
			Level 1 Incident Count 1st Unit:	136	28	31	29	21	27
			Level 1 ERF Incident Count:	44	15	5	12	7	5

HAZARDOUS MATERIAL INCIDENTS

Hazardous Materials Low / Moderate Risk		Benchmark Goals at 90th Percentile	CHFD Baseline Goals at 90th Percentile	2016 - 2020	2020	2019	2018	2017	2016
Call Processing	Pick-up to Dispatch	1:00	1:30	3:05 (+1:35)	3:05 (+1:35)	3:10 (+1:40)	3:06 (+1:36)	2:52 (+ 1:22)	2:38 (+1:08)
Turnout Time	1st Unit	1:20	1:30	2:11 (+0:41)	2:05 (+0:35)	2:08 (+0:38)	2:14 (+0:44)	2:10 (+0:40)	2:23 (+0:53)
Travel Time	1st Unit	4:00	5:12	5:32 (+0:22)	5:25 (+0:13)	5:40 (+0:28)	5:20 (+0:08)	5:42 (+0:30)	5:30 (+0:18)
	ERF - Vehicles	8:00	10:24	9:25 (-0:59)	9:06 (-1:18)	7:36 (-2:48)	13:21 (+2:57)	12:10 (+1:46)	8:53 (-1:31)
Total Response Time	1st Unit	6:20	8:12	9:01 (+0:49)	9:15 (+1:03)	9:01 (+0:49)	9:40 (+1:28)	8:54 (+0:42)	8:42 (+0:30)
	ERF - Vehicles	10:20	13:24	13:00 (-0:24)	13:44 (+0:20)	11:37 (-1:47)	16:22 (+2:58)	16:20 (+2:56)	12:30 (-0:54)
			Level 1 Incident Count 1st Unit:	332	67	84	63	57	61
			Level 1 ERF Incident Count:	69	12	12	12	15	18

EMERGENCY MEDICAL SERVICES

CHFD provides emergency medical ambulance service at the basic life support level. Advanced life support care is hospital based and the CHFD has no direct control over this function. A call for emergency medical assistance is received first at the regional dispatch center PSAP or ASPA. The following chart depicts the BLS unit response times in fractile percentages for the last five (5) years.

EMS Low / Moderate Risk		Benchmark Goals at 90th Percentile	CHFD Baseline Goals at 90th Percentile	2016 - 2020	2020	2019	2018	2017	2016
Call Processing	Pick-up to Dispatch	1:00	1:30	3:32 (+2:02)	3:44 (+2:14)	3:36 (+2:06)	3:33 (+2:03)	3:32 (+2:02)	3:08 (+1:38)
Turnout Time	1st Unit	1:00	1:30	1:43 (+0:13)	1:48 (+0:18)	1:47 (+0.17)	1:41 (+0:11)	1:39 (+0:09)	1:45 (+0:15)
Travel Time	1st Unit	4:00	5:12	6:50 (+1:38)	7:00 (+1:48)	6:56 (+1:44)	6:43 (+1:31)	6:37 (+1:25)	6:39 (+1:27)
	ERF - Vehicles	8:00	10:24	11:21 (+0:57)	11:26 (+1:02)	11:34 (+1:10)	11:05 (+0:41)	11:10 (+0:46)	11:30 (+1:06)
Total Response Time	1st Unit	6:00	8:12	10:26 (+2:14)	10:59 (+2:47)	10:44 (+2:32)	10:13 (+2:01)	10:11 (+1:59)	10:09 (+1:57)
	ERF - Vehicles	10:20	13:24	14:39 (+1:15)	14:52 (+1:28)	14:52 (+1:28)	14:10 (+0:46)	14:27 (+1:03)	14:42 (+1:18)
			Level 1 Incident 1st Unit Count:	18,048	3,326	3,764	3,648	3,701	3,609
			Level 1 ERF Incident Count:	14,037	2,499	2,920	2,856	2,878	2,884

CALL CONCURRENCY AND RELIABILITY

When evaluating the effectiveness of any resource deployment plan, it is necessary to evaluate the workload of the individual companies to determine to what extent their availability for dispatch is affecting the response time performance. In simplest terms, a response unit cannot make it to an incident across the street from its own station in four minutes if it is unavailable to be dispatched to that incident because it is committed to another call.

CONCURRENCY

One way to look at resource workload is to examine the number of times multiple incidents happen within the same timeframe in a given area. Incidents during 2016-2020 were examined to determine the frequency of concurrent calls. This is important because simultaneous calls can stretch available resources and extend response times. It was determined that an additional ambulance was needed during peak response times.

Number of Times when 1 or More Simultaneous Calls Occur in Fire Local

Station / Year	2016	2017	2018	2019	2020	Total
Station 2	42	42	47	64	46	241
Station 22	72	53	29	50	47	251
Station 3	84	76	77	92	67	396
Station 4	43	27	46	23	32	171
Station 5	76	70	97	117	46	406
Station 6	59	57	71	60	87	334
Department-Wide	**376**	**325**	**367**	**406**	**325**	**1799**

Number of Times when 2 or More Simultaneous Calls Occur in Fire Local

Station / Year	2016	2017	2018	2019	2020	Total
Station 2	3	4	2	12	7	28
Station 22	17	12	10	12	13	64
Station 3	17	7	11	11	10	56
Station 4	10	2	7	2	12	33
Station 5	2	8	14	18	3	45
Station 6	7	6	10	6	41	70
Department-Wide	**56**	**39**	**54**	**61**	**86**	**296**

Number of Times when 1 or More Simultaneous Calls Occur in EMS 1st Due Zone

1st Due Zone	2016	2017	2018	2019	2020	All Years
1392	105	100	74	93	83	**455**
1393	118	153	166	190	175	**802**
1395	127	130	173	210	158	**798**
1396	98	95	100	98	69	**460**
All Zones	**448**	**478**	**513**	**591**	**485**	**2,515**

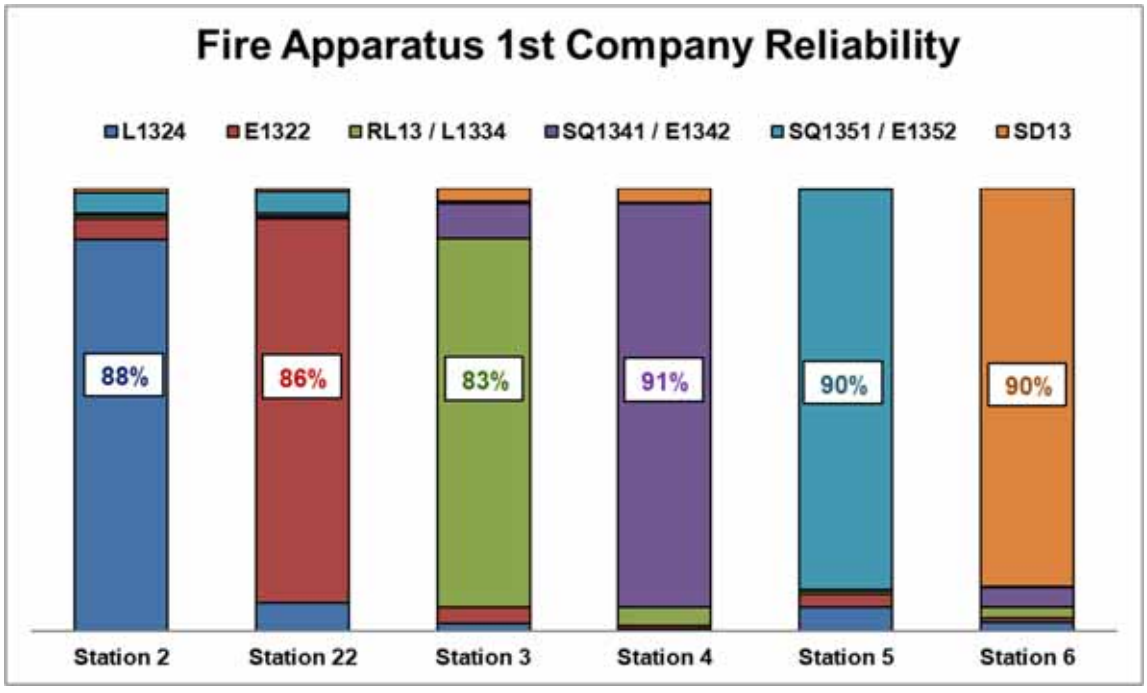
Number of Times when 2 or More Simultaneous Calls Occur in EMS 1st Due Zone

1st Due Zone	2016	2017	2018	2019	2020	All Years
1392	3	5	2	3	3	**16**
1393	7	7	8	8	7	**37**
1395	4	1	10	17	5	**37**
1396	3	5	3	3	1	**15**
All Zones	**17**	**18**	**23**	**31**	**16**	**105**

RELIABILITY

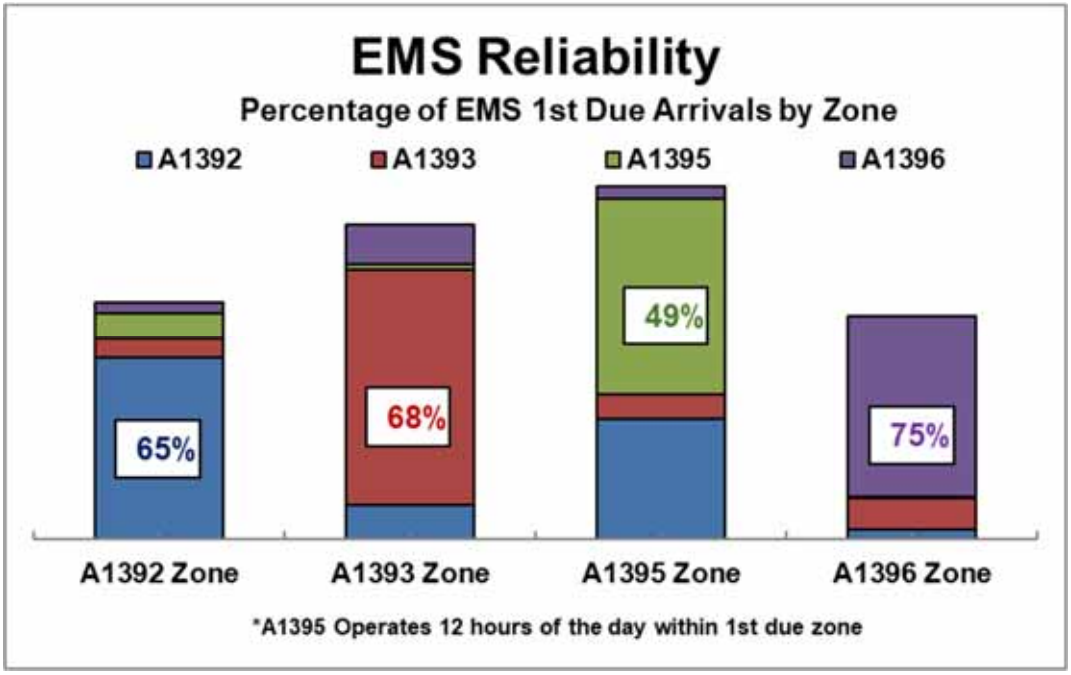
The ability of a fire station's first-due unit(s) to respond to an incident within its assigned response area is known as unit *reliability*. The reliability analysis is normally done by measuring the number of times response units assigned to a given fire station were available to respond to a request for service within that fire station's primary service area.

Number of 1st Company Arrivals by Fire Local						
1st Unit	**Station 2**	**Station 22**	**Station 3**	**Station 4**	**Station 5**	**Station 6**
L1324	**2,864 (88%)**	173	53	13	228	46
E1322	152	**2,339 (86%)**	121	21	129	22
RL13 / L1334	23	19	**2,720 (83%)**	114	30	65
SQ1341 / E1342	13	20	263	**2,592 (91%)**	18	109
SQ1351 / E1352	154	129	16	5	**3,897 (90%)**	7
SD13	31	21	94	93	13	**2,211 (90%)**
TOTAL	**3,237**	**2,701**	**3,267**	**2,838**	**4,315**	**2,460**
Yellow = 1st Due						



Number of EMS 1st Company Arrivals by Response Zone			Yellow = 1st Due Zone	
1st Unit	**A1392 Zone**	**A1393 Zone**	**A1395 Zone***	**A1396 Zone**
A1392	**5,138 (65%)**	972	3,399	299
A1393	535	**6,669 (68%)**	691	858
A1395	728	173	**5,562 (49%)**	70
A1396	342	1,112	354	**5,117 (75%)**
A1397	987	291	1,060	169
A1398	5	10	57	58
EMS13	194	551	296	236
Total	**7,929**	**9,778**	**11,419**	**6,807**

*A1395 operates 12 hours of the day within 1st due zone



COMPONENT G – COMPLIANCE METHODOLOGY

This component describes the Cherry Hill Fire Department's ongoing effort to provide analysis and evaluation of adopted Standards of Cover.

History

At the inception of the accreditation process, the CHFD began the process of developing formal standards of cover documents. Like many other agencies, the organization was well aware of the strengths and shortcomings of the service provision. The key difference was that it was never documented in one place for the whole organization to review, and most importantly, the customer did not have the opportunity to review. With the completion of this document and the ongoing process of continual evaluation of service delivery, the department can ensure continual improvement in matters pertaining to response to calls for service.

Methodology

The methodology used by the organization not only meets the compliance measures for the adopted standards of cover, but also meets the established methods provided in the Commission on Fire Accreditation International(CFAI) Standards of Cover Manual, 5th Edition. This process was in keeping with the self-assessment requirements as provided in the CFAI Fire and Emergency Services Self-Assessment Manual, 9th Edition (FESSAM).

Compliance Team

The Cherry Hill Fire Department has embraced the self-improvement model as presented by CFAI. The Office of the Fire Chief has ultimate responsibility to report all findings to the governing body of the Board of Fire Commissioners who represent the public as elected officials. The Office of the Fire Chief, along with the assigned Accreditation Manager and the GIS analyst, has and will continue to work closely to improve upon the process.

Performance Evaluation

In the development of the Standards of Cover document, the developers were able to extract data from several sources. The Firehouse RMS used by Camden County Communications Center is the first level of data management. All calls for service of fire apparatus are recorded via the CAD system into the Firehouse RMS. Fire Department personnel complete the report with information from on scene. This information is then stored in a cloud based RMS. Emergency medical data is uploaded from the Camden County CAD system to the NJ Department of Health EMS Charts RMS.

Once the data becomes available, the compliance team is able to download the data into Stats FD, the CHFD's data analysis program. Reports are generated and evaluated by the compliance team and placed into summary charts and graphs as provided in the Standards of Cover. This process has revealed some shortcomings in the expeditious delivery of emergency services.

Call processing times fall short of expectations in most service provision categories. Although this falls outside the direct responsibility of the fire department, the organization is committed to any improvement strategy that will improve processing times. It is also shown that turnout times have room for improvement. The CHFD has begun to take steps to ensure turnout times improve.

Risk Assessment

The CHFD risk assessment process is mainly driven by the pre incident planning that companies complete in the field. As stated in CHFD Policy 1214, pre-incident planning provides vital information about a specific occupancy, which includes the construction type, building components/features, suppression and detection systems and any special hazards. Preplans are available from the apparatus MDC or 3 ring binders. In 2019, the CHFD policy was revised to better suit the needs of the department. In 2021, the department began the process of evaluating a new pre incident planning and mapping software program that will enhance the method of gathering vital building information.

Improvement Strategy

The Cherry Hill Fire Department developed the 2021-2025 Strategic Plan that contains goals for the organization. This plan is a fluid document and will be reviewed every year. The progress of ongoing initiatives is reported monthly to the Fire Chief and the governing body of the Board of Fire Commissioners. The Standards of Cover has enhance the continuous improvement efforts and assist in the development of all planning and budget preparation documents. The Standards of Cover and the Strategic Plan will be made available on the Cherry Hill Fire Department website (www.cherryhillfire.org).

COMPONENT H – OVERALL EVALUATION AND RECOMMENDATIONS

OVERALL EVALUATION

This CHFD Standards of Cover is based on the *CFAI Standards of Cover 5th Edition,* which required the completion of an intensive analysis on all aspects of the CHFD deployment and staffing practices. An analysis of workload, historical performance, evaluation of risk, and validation response was completed. The analysis relied on the experience of staff officers and their historical perspective combined with historical incident data captured by both the dispatch center and the department's in-house records management system. The Description of the Community Served section provided a general overview of the organization, including governance, lines of authority, finance, and capital and human resources, as well as an overview of the service area including population and geography served. The Review of Services Provided section detailed a brief overview of the core services the organization provides based on general resource/asset capability and basic staffing complements.

An overview of community risk was provided to describe the risks CHFD is charged with protecting. Geospatial characteristics, topographic and weather risks, transportation network risks, physical assets, and critical infrastructure were reviewed. As a factor of risk, community populations and demographics are evaluated against historic and projected service demand. Population and service demand, over the past decade, has increased. Evaluating risk using advanced geographic information systems (GIS) provided an increased understanding of community risk factors, which can lead to an improved deployment policy. During the analysis of service level objectives, critical tasking assignments were completed for incident types ranging from a basic medical emergency to a high-risk structure fire. Critical tasking required a review of on-scene staffing capability to mitigate the effects of an emergency. These tasks ultimately determine the resource allocation necessary to achieve a successful operation. The results of the analysis indicate that a moderate risk structure fire required 13 personnel.

The Review of Historical System Performance and Summary System Performance evaluated each component of the emergency incident sequence. The Performance Objectives and Measurement section analyzed the total response time including components such as call processing, turnout, and travel. Beyond the response time of the initial arriving units, the additional components of concentration and effective response force, reliability, call concurrency, and resource drawdown were evaluated. Based on the CHFD Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis, data analysis and community expectations, the Office of the Fire Chief has establish goals and objectives to improve the delivery of fire and emergency services to Cherry Hill Township. These goals and objectives have been established in the Strategic Plan 2021 -2025.

CONCLUSION AND RECCOMENDATIONS

Just as the Strategic Plan is a fluid document that requires the organization to constantly look at the current and future levels of service it provides to the community served, the Standards of Cover is not a one-time document that sits on the shelf once it is completed. This document must evolve as the community evolves and changes to ensure that the fire department is meeting the challenges that it faces in the community. This document becomes a resource for current and future leaders of the organization to plan effectively, while keeping the department functioning in a forward, positive direction.

This document was presented to the Board of Fire Commissioners of Cherry Hill Fire District #13 and the Mayor of Cherry Hill Township to establish a coordinated understanding of the fire department's operations and services. The Self-Assessment Manual, Strategic Plan and Standards of Cover documents will provide a complete illustration of the Cherry Hill Fire Department, its vision and goals.

By preparing this study as a representation of the organization, it allowed those participating in developing the document to have a better understanding of what the fire department has accomplished. We were able to identify many best practices and the need to make sure they are documented properly. Areas identified as a weaknesses will require us to make improvements such as policy development and efficiently performing tasks. The document also demonstrates how the department operates and prepares the organization for change. In addition, the community has a better understanding of the agency's professionalism,

operations, and most importantly the department's goals and objectives.

In 2016, the Fire District in partnership with the Township, established a full time GIS Analyst position to improve our abilities to map and evaluate data. This alone has afforded the fire department to build the next generation of our Standards of Cover document. This completed body of work has set the baseline for the department to continue to evaluate and monitor itself in the following areas:

- Change in Community Demographics
- Response Times to Critical Care EMS Patients
- Response Times to Structural Fires to Limit Property Damage to the Area of Origin
- Staffing and Resource Levels to Meet the Service Demand of the Community
- Community Risk Assessment
- Financial Management of Revenue and Operating Expenses
- Strengths and Weaknesses of the Organization
- Training and Skill Levels to allow our Personnel to work Safely and Effectively
- Community Interaction with Residents and Business Leaders

Analysis of response statistical data is the cornerstone of performance improvement. We have realized that certain segments of the response data remain outside the department's control. The time between the receipt of the 9-1-1 call and the dispatch of CHFD resources, identified as "call processing time", is under exclusive control of the Camden County Communications Center (CCCC) - Public Safety Answering Point (PSAP), and will require attention and coordination by all parties involved in the response to realize the improvement that we seek. The department will continue to work with our partners at the PSAP to improve the call processing times. The findings of this report have triggered a mechanism to improve call processing at Camden County Communications Center. To date the department has taken the following actions:

- The CHFD Fire Chief's Office meets regularly with the Camden County Communications Chief's Office to generate a discussion on this subject. The Fire Chief meets monthly with the Chief of Communications and/or his designee for open discussion relative to the Communication Center.

- Both CCCC and CHFD agreed that “hot calling” is a priority 1 call (structure fire, ALS medical) will help reduce processing time. Hot calling is pushing the priority 1 call to the dispatcher to start resources towards the call once critical information is gathered by the call taker. The call taker will then continue speaking to the caller to obtain additional information.
- CHFD will run monthly reports to review dispatch data and provide CCFR with a copy.
- CCCC has reported that they are currently working on specifications for a new CAD. The target date for this new system to be in place is within the first quarter of 2024.
- Improvements to include GIS, AVL, Closest Available Resource Dispatching, Run Card Resource Order, Additional Comment Lines for 9-1-1 Call Taker, Address History Expansion, Multiple Computer Servers (Cloud & Physical), Mapping Interface and GEO Mapping.
- CHFD has been working on a list of radio/communication functionality improvements that have been sent to CCCC for consideration for their new CAD system such as station alerting and a second means of notification.
- It is also recognized that turnout time needs improvement for the Cherry Hill Fire Department. Officers of the Cherry Hill Fire Department are made aware via Field Command Office of turnout times. The proposed new CAD will also assist in the internal improvement of turnout time with greater potential for station alerting and real time tracking of turnout time for the responders.