

# **Brenham Fire Department Comprehensive Review**



**2018 – 2025**

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## The Future of the City of Brenham Fire Department

As the Fire Chief for the City of Brenham Fire Department, trying to predict the future is difficult and challenging. With each year, the budget process brings new challenges as our department and city evolves. Our fire department must continue to change as the needs of our city changes. Although financial times can be hard and challenging, our department has to continue to provide services to our citizens.

Our calls for service continue to increase each year. With the predicted growth of the city, calls for service will increase even more. We will continue to provide high quality services to our customers while seeking out supplemental funding sources and operate efficiently as possible. Our members continue to meet the increased demands placed on them every year. They do so without asking for a praise. They do so because they are dedicated to the City of Brenham Fire Department.

We as a leadership staff have a vision of the City of Brenham Fire Department will look like in the coming years. We have a solid foundation to build on but will need your support so that we can achieve these goals. Without a solid foundation in our organization, it will never be possible to build a structure that will stand for years to come. We know and understand the issues that we face. The purpose of this plan that we are presenting to you is to identify the needs of our organization and outline a process on how to meet those needs.

Our intent is to improve the services that we provide to our city. We hope that this document will provide you with an understanding of the City of Brenham Fire Department. This document is our road map on how we see our department being structured in the future. We will continue to develop productive and professional relationships with each of you and the citizens of this city. We look forward to the continued positive and supporting relationships with present and future city council and staff members. I would like to thank the council, city staff, and community for its continued support of the City of Brenham Fire Department.

I, as the Fire Chief, hold the members of our department in the highest regard. Their performance, attitude, and energy are what make this such an outstanding organization. We as an organization must inform the city staff, council, and community of the resources necessary to achieve our mission.



Ricky Boeker  
Fire Chief

# Mission Statement

of the

**Brenham Fire Department**

*“The members of the  
Brenham Fire Department  
Proudly dedicate ourselves  
to providing the highest level  
of fire protection, fire prevention, and  
quality service possible to the  
customers we serve.”*

## Vision Statement of the Brenham Fire Department

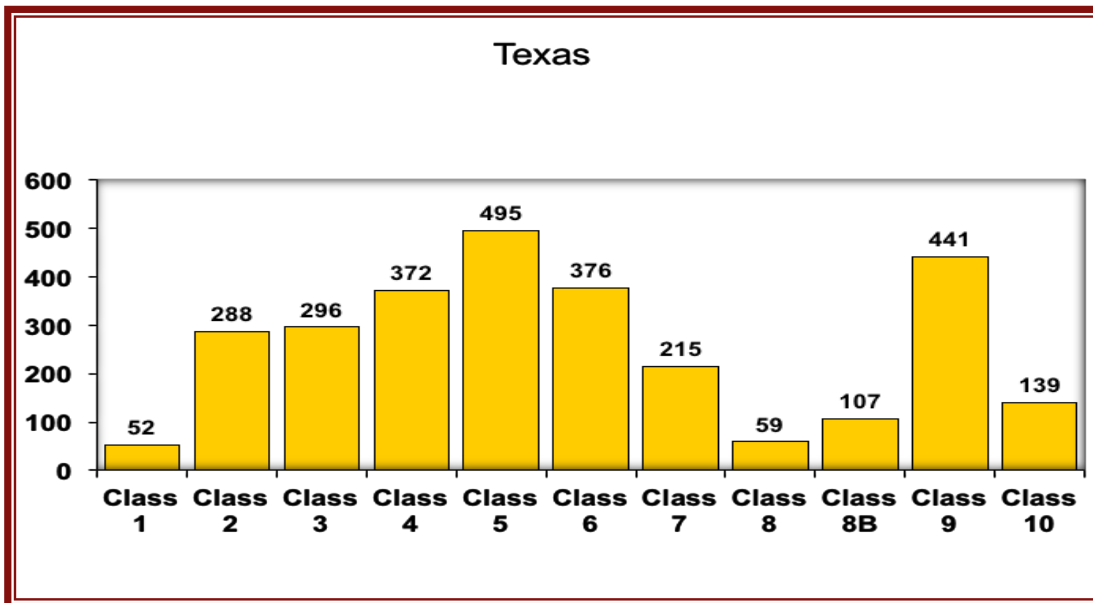
- Create an atmosphere of cooperation between volunteer and career firefighters creating a productive and professional relationship.
- Maintain highest level of firefighting technology available that the department and community can afford.
- Maintain a quality organization that the entire community would want to be involved in and would encourage volunteer participation.
- Maintain highest quality of service to the community.
- Encourage each member to make a total commitment to work together and respect each other regardless of status or rank.
- Maintain personnel, training, equipment, and facilities for quality customer service.
- Maintain positive image throughout the fire department.
- Become an organization that shares goals, objectives, involvement, and ownership.
- Maintain continuous evaluation of the operation, purpose, resources, and future of the fire department.
- Maintain adequate facilities that provide a delivery system that meets community growth.
- Maintain quality training to meet modern techniques, methods, and tactics.
- Facilitate a safe working environment by providing all personnel with current equipment meeting guidelines.

## What does the Brenham Fire Department do?

The Brenham Fire Department enhances the quality of life of our citizens by providing the following services.

- **Fire, Rescue, Hazmat Response** - Action taken in response to an unexpected and dangerous occurrence in an attempt to mitigate its impact on people or the environment. Emergencies can range from fires and natural disasters to hazardous materials problems and transportation incidents.
- **Emergency Management** - The managerial function charged with creating the framework within which communities reduce vulnerability to hazards and cope with disasters.
  - **Vision.** Emergency Management seeks to promote safer, less vulnerable communities with the capacity to cope with hazards and disasters
- **Fire Prevention** - The goal of fire prevention is to educate the public to take precautions to prevent potentially harmful fires, and be educated about surviving them. It is a proactive method of reducing emergencies and the damage caused by them.
- **Plan Reviews** - The Brenham Fire Department review plans, specifications, calculations, and other related documents for all new or remodeled commercial and industrial buildings or for other structures that require fire safety systems. These plans are reviewed for compliance with the provisions of all adopted fire codes
- **Public Relations** - The Brenham Fire Department participates in several public relations events every year, with station tours, smoke detector checks, and other events at local businesses. We believe that keeping a positive image in our community is key to our success.
- **Fundraisers** - The Brenham Fire Department does annual fundraisers to help fund expenses that are not included in our annual operating budget. These events not only raise funds for our department, they also are gatherings for our community that help bond the citizens together.
- **Fire Investigations** - Sometimes referred to as origin and cause investigation, is the analysis of fire-related incidents. After firefighters extinguish a fire, an investigation is launched to determine the origin and cause of the fire or explosion.

- ISO 3 Rating** – Insurance Service Office (ISO) expert staff collects information about municipal fire protection efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a Public Protection Classification (PPCTM) — a number from 1 to 10. Class 1 generally represents superior property fire protection, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria. The chart below shows where we stand in Texas with other cities with our rating of 3. Our goal is to get to a PPC rating of 1. In the 2012 ISO Report the number of volunteers we were



credited for was 17.65 volunteers/off-shift personnel that responded to first alarm structure fires. In the next 4-year period that number declined by five (12.2) firefighters on scene. One of the items for us to lower our PPC rating to 1 we need to have 15 firefighters available to respond to alarms, but this is a **SAFETY ISSUE** as well not only ISO rating. This equates to 3 engine companies at 4 firefighters per company and one Ladder Company with another 3 firefighters. This can be accomplished by a combination of paid on duty and volunteer combined. It takes two volunteers to count as one firefighter on an engine company if they are not at the station responding. We are going to have to hire more shift personnel if we cannot get more volunteers to respond. The plan to hire more firefighters is laid out in detail later on in this report. Let me be clear making sure we have 15 members on scene is more than possibly lowering our ISO rating, it is a **SAFETY ISSUE** for the firefighters on scene. We will explain this later in this report (NFPA 1710).



- **Training** - The Brenham Fire Department members conduct approximately 4561 hours of training annually. This training is for new certifications and to maintain current certifications as well as keep up with the constant changes to vehicles and structures built.
- **Fleet and facility maintenance** - The Brenham Fire Department does the majority of the facility and fleet maintenance in house. We have a certified emergency vehicle technician on staff, by having the majority of our maintenance done in house we save thousands of dollars annually.
- **Provide a meeting place for our community** - The Brenham Fire Department owns the training facility that host many events for our citizens, school district, and business owners every year.
- **Mutual Aid** - In emergency services, mutual aid is an agreement among emergency responders to lend assistance across jurisdictional boundaries. This may occur due to an emergency response that exceeds local resources, such as a disaster or a multiple-alarm fire.

## Why does the Brenham Fire Department do what we do?

- **To improve the quality of life for our citizens and customers** - The services that the Brenham Fire Department provides, improve the quality of life for our citizens by providing them with security and safety.
- **Safety of our citizens** - The safety of our citizens is what the Brenham Fire Department strives for, we are here to help reduce the loss of life and property, and prevent emergencies from occurring by using risk reduction methods.
- **To be role models for our youth** – Firefighters possess the qualities that we would like to have, and those who have affected us in a way that makes us want to be better people. These qualities include but are not limited to professionalism, respect, integrity, dedication, honor, and courage. These qualities help us to advocate for ourselves and take a leadership position on the issues that we believe in. We believe that our department does that for the youth in our city.
- **To be leaders in our community** - The Brenham Fire Department strives to build and mold the future leaders of our community.
- **To be a positive image of the fire service** - The fire service has a long history of people and departments are a positive imagine in our communities. Through use of our P.R.I.D.E. model “Professionalism, Respect, Integrity, Dedication, Excellent Service”, we want to show not only our citizens but also the whole fire service what an amazing organization we have.



- **Pride for our department and city** - The members of the Brenham Fire Department are very proud of our department and city. The pride that we have is what drives us as a department to be “second to none”.
- **It is our calling** – Most careers are jobs, but we feel the fire service is a calling. To be a firefighter you have to sacrifice a lot and possibly your life to help a complete stranger. We feel that the profession that we have all chose is more than a job we feel it is our calling in life to help others.



## What would happen if the Brenham Fire Department did not exist?

- **Lower quality of life for our citizens and customers** - Without the Brenham Fire Department, emergency calls would go unanswered and there would be an increase of loss of life and property.
- **Unsafe buildings for our citizens and customers** - Without the Brenham Fire Department new and existing businesses would not be safe for our citizens. This would also be an increase of loss of life and property.
- **The history of Brenham would be erased** - The Brenham Fire Department has over 150 years of dedicated service (1867-2017) to the city. The department formed to protect the city from the threat of fire after the union soldiers burned the city. The department also started the Washington County Fair and Maifest; both of these events are still going on today and are a major part of what makes Brenham what it is today.
- **The insurance cost for the citizens would increase** - Without the Brenham Fire Department the ISO score would be raised and every citizen and business owner's insurance rates would increase, this would also leave less money for citizens and business owners to reinvest in our city.

- **There would be a lack of positive role models for our youth** - Without the Brenham Fire Department there would be fewer positive role models for our youth to look up to and try to follow. We consistently have tours of kids come to the station to learn about fire safety and see what firefighters do to prepare to be ready to protect our community. During 2017, the Department participated in 58 Public Relations Events along with 19 station tours (20 or more participants) and 13 Fire Museum Tours that were scheduled.



- **There would be a major increase of loss of life and or property** - Without the Brenham Fire Department the city would have no fire protection and fires would consume more property and lives.
- **The citizens would no longer have the security and safe feel that Brenham currently has** - Without the Brenham Fire Department our citizens would not have the security and safe feel that they have had for the past 150 years. The city would not be an attractive place for people to move, knowing that they have no fire or rescue protection.

## Employee Page

The Brenham Fire Department currently has 15 career staff and 3 administration staff for a combined 33% of the total membership. Current BFD has 38 volunteer staff for 67% of the total membership, and 1 administration assistant. In the 2012 ISO report, we averaged 17.65 firefighters on scene of a structure fire and in 2016, that number had gone down to 12.2. In 2017, we averaged 14.3, which is a slight increase, which we feel, is due to recruiting eight new vol. members. We are seeing the number of volunteer staff dwindle on calls for several reasons.

1. Not enough time because of family commitments
2. Both Parents working, not enough spare time to participate
3. Employer's not letting volunteer off work to go to fire calls
4. Change in times, giving back to the community not as important as before

Together the total years of service for all member's equals 575.1 years with an average years of services being 10.8 years for Career Staff and 9.4 for Volunteer Staff. The average age for the Career Staff is 37.6 and 43.6 for the Volunteer Staff.

In our recruitment efforts of Volunteers, we make sure that all members are able to perform the basic firefighting tasks. We have a training program that gives the volunteer firefighters an opportunity to apply for a career position when there is a vacancy if they have completed the program and obtained the necessary certifications. On average, we spend \$500 per firefighter getting them trained to the level that they become an asset to the Department. This does not include any PPE gear they will need. PPE cost are \$2,500 per member.

The Fire Service Joint Labor-Management Task Force successfully developed the Wellness-Fitness Initiative in 1997 to address the need for a holistic and non-punitive approach to wellness and fitness in the fire service. The task force developed and validated the Candidate Physical Ability Test (CPAT), resulting in a consistent test for hiring firefighter candidates. We have adopted this process to make sure that we have qualified candidates that apply for membership.

The Career Staff consists of three (3) shifts that each work 48hrs. on duty and 96hrs. off duty 365 days a year. Each shift consists of five (5) staff members, Captain, Lieutenant, and 3 Apparatus Operators. The Volunteer Staff carry pagers for alarm notification along with cell phone applications.

The Staff are cross certified in a multitude of certification agencies such as Texas Commission on Fire Protection (TCFP), State Fireman & Fire Marshall Association (SFFMA), Texas Department of State Health Services (TDSHS), Texas Commission on Law Enforcement (TCOLE), Pro Board, and Texas Intrastate Fire Mutual Aid System (TIFMAS). Currently the staff is certified in the following, but not limited to:

Career Staff	Volunteer Staff
<ul style="list-style-type: none"><li>• Firefighter – Basic – 5</li><li>• Firefighter – Intermediate – 3</li><li>• Firefighter – Advance – 9</li><li>• Firefighter – Master – 1</li><li>• Firefighter – Wildland – 10</li><li>• Hazmat Technician – 8</li><li>• Hazmat Operations – 10</li><li>• EMT – Basic – 9</li><li>• EMT – Paramedic – 2</li><li>• Emergency Medical Responder – 1</li></ul>	<ul style="list-style-type: none"><li>• Firefighter I – 3</li><li>• Firefighter II – 11</li><li>• Firefighter Master – 3</li><li>• Firefighter – Wildland – 10</li><li>• Hazmat Technician – 2</li><li>• Hazmat Operations – 18</li><li>• EMT – Basic – 4</li><li>• EMT – Paramedic – 1</li></ul>



The Brenham Fire Department has adopted a higher standard of qualifications for our members and officers. Currently in order to progress from the rank of Firefighter, Apparatus Operator, Lieutenant, Captain, and Assistant Chief a member will have to complete a Task Book. This Task Book includes activities and task that should be completed in order to progress to the next level. These activities and tasks include job functions and responsibilities for the specific job according to the job descriptions.

Along with these Task Books, certain certifications have to be obtained in order to hold the rank. Some examples are Driver Operator for Apparatus Operator, Fire Instructor, Fire Inspector, and Fire Officer I for Lieutenant, all the certifications plus Fire Officer II for Captain.

All officers also have to be National Incident Management System (NIMS) compliant in training. These NIMS trainings include Introduction to Incident Command System (ICS), ICS for Single Resources, Intermediate ICS, Advance ICS, NIMS Introduction, and National Response Framework.



# Strengths \* Weaknesses \* Opportunities \* Threats

## STRENGTHS

It is important for any organization to identify their strengths in order to assure they are capable of providing the services requested by customers and to ensure that strengths are consistent with the issues facing the organization. Often, identification of organizational strengths leads to the channeling of efforts toward primary community needs that match those strengths. Programs that do not match organizational strengths or the primary function of the business should be seriously reviewed and evaluate the rate of return on precious staff time. The Brenham Fire Department believes our strengths are:

- We have proper equipment that is efficient and up to date
- We provide good customer service.
- We have great people who are willing to learn, outgoing, and care about their coworkers.
- We have great leadership within the department that care about our people, are willing to listen, open to new ideas, and communicate well within the department.
- We have a good training program that has positive feedback, specialty training, and hands on training exercises.
- We have great fire prevention program that is up to date, innovative, keeps the audience engaged.
- We are good at emergency response
- We improve the quality of life for our citizens.

## WEAKNESSES

Performance or lack of performance within an organization depends greatly on the identification of weaknesses and how they are confronted. While it is not unusual for these issues to be at the heart of the organization's overall problems, it is unusual for organizations to be able to identify and deal with these issues effectively on their own. For any organization either to begin or to continue to move progressively forward, it must not only be able to identify its strengths, but also those areas where it does not function well or not at all. These areas of needed enhancements are not the same as threats, but rather those day-to-

day issues and concerns that may slow or inhibit progress. The Brenham Fire Department has identified some of our weaknesses are;

- Manpower- we currently do not have enough firefighters on emergency scenes. With limited staffing at initial incidents there is not a sufficient number of firefighting personnel on staff to handle multiple emergencies at the same time.
- Declining number of volunteer firefighters- with the generational gap and with the newer generations not wanting to volunteer their time, the fire service as a whole has seen a decline in the number of volunteer firefighters. The Brenham Fire Department can look at expanding the distance that you are required to live from the station or start a reserve program to help supplement the volunteer firefighters.
- Recruitment- we are one of the few departments in the state that have a living requirement for our firefighters. The Brenham fire department has this requirement because of the limited availability of mutual aid departments. This becomes a problem when we hire because some applicants do not want to relocate their family to Brenham. We were able to relax this to one hour during our last hiring and doubled our applicant pool that applied. The department needs to evaluate salaries to make sure that we are staying in range of our neighboring departments.
- Only having one station- by operating out of a single fire station our response times are slow to the south side of the city.

## OPPORTUNITIES

The opportunities for an organization depend on the identification of its strengths and weaknesses, and how they can be enhanced. The focus of opportunities is not solely on existing service, but on expanding and developing new possibilities both inside and beyond the traditional service area. Many opportunities exist for the Brenham Fire Department such as:

- Growth of the city- with commercial and residential growth we see an opportunity for a growth in the tax base which will increase the budget for manpower, station, and equipment. With the growth of the city also comes an increased call volume and job opportunities inside the department.
- Alternative funding sources- grants and fundraisers are sources of alternative funding methods that our department may be able to utilize to

acquire the equipment and personnel we need until the funding is available through the city.

- Public Relations- through the use social media platform such as Facebook and twitter, open houses, training the citizens and business owners, and the fire museum our department sees our public relations as great opportunities to market our department.
- City support- the City of Brenham, citizens, and business owners all support the fire department and its people.
- Youth- with new generations moving into the workforce, the fire department is finding new ways to recruit our youth. Some of the ways we are doing this is by providing a recruit academy that allows new members to obtain necessary certifications that could be applied towards future employment. We also use social media such as Facebook and twitter to reach out and connect with new generations.

## THREATS

Fundamentally, the success of any strategic plan is the understanding that threats are not completely and/or directly controlled by the organization so the current and future threats of the City of Brenham Fire Department include;

- Growth in community bringing and increased demand for service without increasing the amount of staff. The department currently needs to hire an additional 3 firefighters, putting one each additional firefighter on per shift. The department also needs an Assistant Fire Marshal to assist with inspections, investigations and plan reviews. The approximate cost for the 3 firefighters would be \$213,441 and the Asst. Fire Marshal is \$92,201.
- Safety of public safety personnel- over the past few years' public safety personnel have become targets. Firefighters and paramedics are being issued bulletproof vest, and have been the victims of targeted violence against public service employees. The threat of being seen as a government threat is beginning to happen more.
- Economy- the economy is something that is out of the control of the fire department, but can have a huge impact on its operations. In the event of an economy downfall, our department would have to find ways to continue to provide the same service with less funds. The department is currently operating with staffing level of 5, but has a minimum staffing level of 4. Using vacation and three year average of sick days taken we are only working with a full staff 62% of the time. So in the event of an



economy crash it could potentially cripple our operations if staffing levels are reduced.

## What is the City of Brenham Fire Department responsible for?

- **Life Safety, Property Conservation, and Incident Stabilization** - Priorities remain fundamentally constant, regardless of the incident's size or complexity: life safety, incident stabilization, and property/environmental conservation. It includes rescuing endangered civilians; treating the injured; and providing for the safety, accountability, and welfare of response personnel.
- **Reporting to authority** - We are responsible to report to not only the city government but also the citizens and our customers.
- **Accounting and Budgeting** - We are responsible for the proper use of taxpayer funds and responsible for being diligent with the funds provided to us annually.
- **Fleet and Facility maintenance** - From our large apparatus to our small engines, we are responsible for maintaining and keeping our equipment in good working order. We are also responsible for keeping our station in good operating condition and clean.
- **Fire Prevention** - From public education to inspections, investigations, and plan reviews it is our responsibility to constantly teach and evaluate the safety of our citizens and businesses.
- **Training** - From training our new members to helping our staff obtain advanced certifications, we are dedicated to our training program. Last year our members completed 4423 hours of training and obtained nine new certifications.
- **Training Center and Museum** - We are responsible for operating the fire-training center. The training center is available to rent to the citizens and businesses every year for various functions. The department membership is responsible for working the center and keeping the facility in operating condition. The membership is also responsible for opening the fire museum on the weekend so that we can educate our citizens and visitors on the history of the Brenham Fire Department.
- **Recruiting** - We are responsible for the recruitment of new paid and volunteer staff. The number of people volunteering is down nationwide, so we are finding new ways to keep quality people in our department.

- **Fundraising/Grants** - We are responsible for seeking alternative funding methods such as fundraisers and grants before we ask the city for additional funds each year.
- **Short and long term planning** - We are responsible for not only the future of the fire department but for the safety of the citizens of Brenham for years to come. The fire departments staff is proactive by having planning meetings, identifying strengths and weaknesses of our department and then our staff comes up with cost effective ways to enhance our services and train our people to the highest standards.
- **Leaders in the community** - We are responsible for developing and molding the future leaders in our city. We have retired members of the department who serve on council and other boards across the county. We pride ourselves on developing future leaders for the city. The fire department does this by giving insight to our members about how local government works. We allow our staff members to help with short and long term planning of the department. We teach our staff budgeting at the lowest level to ensure we are training our people to be the future leaders of our department and community.

## What are the task of the City of Brenham Fire Department?

- **Life Safety, Property Conservation, and Incident Stabilization** - Priorities remain fundamentally constant, regardless of the incident's size or complexity: life safety, incident stabilization, and property/environmental conservation. It includes rescuing endangered civilians; treating the injured; and providing for the safety, accountability, and welfare of response personnel
- **Manage day to day operations of the department** - Each day every person and shift is tasked with different jobs, it is our responsibility to oversee those jobs and make sure that they are being completed in a timely and effective manner.
- **Maintenance or records and reports** - From our emergency response reports, training records, inspections, investigations, and equipment inventory our personnel continually tasked with maintenance of records and reports.
- **Training** - With the daily changes to technology, construction materials and methods of fire attack, vehicle safety and design systems our personnel constantly train to stay up to date.

- **Command Incidents** - On single and multiple company responses to follow guidelines set out by NIMS, we set up and follow incident command policy and procedures to ensure the safety of our personnel.
- **Budget** - We have several budget task which include; preparation, presentation, implementation, and consideration. We are tasked with being good stewards of the funds provided to us annually.
- **Communication** - We are tasked with being effective communicators with our department, city government, business owners, and citizens.
- **Fire Prevention** - The task of fire prevention is to educate the public to take precautions to prevent potentially harmful fires, and be educated about surviving them. It is a proactive method of reducing emergencies and the damage caused by them. The Department is always ask to participate in Public Relation events and in 2017 we did 58 outside events with 19 station tours of large groups (20+ students) and had appointments at the Fire Museum 13 times during the year.



## How long does it take the City of Brenham Fire Department to complete the task?

The Brenham Fire Department is responsible for several duties and task. The duties and task that we are responsible for are constant. When a task is completed there is always another one waiting to take its place. With the unpredictability of when a fire or emergency will happen, our personnel are tasked with not only daily, but also monthly and yearly duties. The Brenham Fire Department operates 24/7 three hundred and sixty-five days a year so our task or duties are never complete.

2020

## FIRE STATION #2

- Open and staff Brenham Fire Station #2
- Mike Pietsch an ISO consultant conducted a study for the City of Brenham that demonstrated a master fire station location plan. Currently the fire department operates out of a single fire station located on the northeast end of the city. The study showed that the city currently needs a second staffed fire station on the south side of the city. The city recently purchased land for a second fire station on South Chappell Hill Street. If a station is constructed on the land purchased would put a staffed apparatus on the south side of the city. This would drastically reduce response times, and bring them into ISO standard. The station is needed to provide quick and effective emergency services to the south side of the city where the majority of the residential and commercial growth is happening. With the current and future growth of the city the study showed that in the near future the city would also need a third fire station to cover the development's that are happening on the west side of the city.
- The need for a second station has been documented in studies from the years:
  - **1980 – State Board of Insurance**, letter dated January 15, 1980 agreed with the location of a second station in the vicinity Highway 290 and FM 389.
  - **1984 – State Board of Insurance**, letter dated February 1, 1984 agreed with the location adjacent to the Training Center the city is going to grow and some of the developed areas are already over 1 ½ miles from your present station.
  - **1984 – State Board of Insurance**, letter dated November 27, 1984 states that we have already a site for a fire station south of the US 290 Loop. "In view of the developments in the area, you need the station now, and we will have to assess a charge if you don't build it soon. Brenham will have 15,000 people before too many years, and you should proceed with construction of a fire department training tower and area, to avoid a \$0.03 penalty."
  - **1994 – Texas Commission on Fire Protection**, letter dated July 5, 1994 states "At this time, we find the city to be deficient in number of fire stations. Our records show that the city has needed a second fire station since the early 1980's. Based on the analysis of response

distances, response times, traffic patterns, and the state of the local economy, we find that the city needs a fire station in the southwest part of Brenham. (In general vicinity of State HWY 290 between FM 389 and State HWY 36) We will recommend the related key rate charge.

- **2005 – Report from Mike Pietsch, PE, Consulting Services, Inc. –** Concerning a Possible Improvement in The City of Brenham's ISO Public Protection Classification. "Provide the fire department with a second fire station. This station should be erected in the vicinity of Prairie Lea St. and Blake Dr. and house an engine company (apparatus and manpower). Provide the Brenham Fire Department with a suitable training facility consisting of a four-story drill tower, a fire building, and a flammable liquids pit (substituting classroom training along with videos is acceptable when the EPA does not allow the burning of flammable liquids)."
- **2012 – Texas Department of Insurance** letter dated June 11, 2012 where the Insurance Service Office (ISO) graded the City of Brenham on its Public Protection Classification (PPC). Our rating stayed the same rating, Class 3. The fire department was graded on the following items and we did well except for a few items. The training credit, we have adjusted our training program and will score higher on our next grading. The other part of the Training is the Training Facility that we do not have. The Credit for Distribution (station locations) and credit for Company Personnel (full time firefighters) 18 per shift. Attached below is a chart with the grading.

**2012 Summary Evaluation Analysis**

The following points represent the analysis of the application of the criteria outlined in the Fire Suppression Rating Schedule (FSRS) of four topics- Receiving and Handling Fire Alarms, Fire Department, Water Supply, and the Divergence factor for Brenham:

**FSRS Feature Credit Available**

**Receiving and Handling Fire Alarms**

- 414 Credit for Telephone Service
- 422 Credit for Operators
- 432 Credit for Dispatch Circuits
- **440 Credit for Receiving and Handling Fire Alarms**

**Fire Department**

- 513 Credit for Engine Companies
- 523 Credit for Reserve Pumpers
- 532 Credit for Pumper Capacity
- 549 Credit for Ladder Service
- 553 Credit for Reserve Ladder and Service Trucks
- 561 Credit for Distribution
- 571 Credit for Company Personnel
- 581 Credit for Training

	<b>Our Grade</b>	<b>Credit</b>
	1.90	2
	2.34	3
	3.75	5
	<b>7.99</b>	<b>10</b>
	9.92	10
	0.66	1
	5.00	5
	4.82	5
	0.96	1
	2.77	4
	6.01	15
	5.63	15

• 580A Supplemental Credit for Texas State Training	1.36	9
• *Note: Maximum value for 581 + 580A = 9 points		
• <b>590 Credit for Fire Department</b>	<b>37.13</b>	<b>50</b>
<b>Water Supply</b>		
• 616 Credit for Supply System	25.05	35
• 621 Credit for Hydrants	2.00	2
• 631 Credit for Inspection and Condition	2.40	3
• <b>640 Credit for Water Supply</b>	<b>29.45</b>	<b>40</b>
<b>Divergence</b>	<b>-0.13</b>	<b>--</b>
<b>Texas Addendum Credit</b>	<b>4.04</b>	<b>6.5</b>
<b>Total Credit</b>	<b>*78.48</b>	<b>100</b>
<i>*If our PPC grade was in the 80's our rating would be a 2, if in the 90's a 1.</i>		

- **2016 – Report from Mike Pietsch, PE Consulting Services, Inc.** on Demonstrating a Master Fire Station Location Plan dated March 14, 2016. The following analysis of the data was provided:

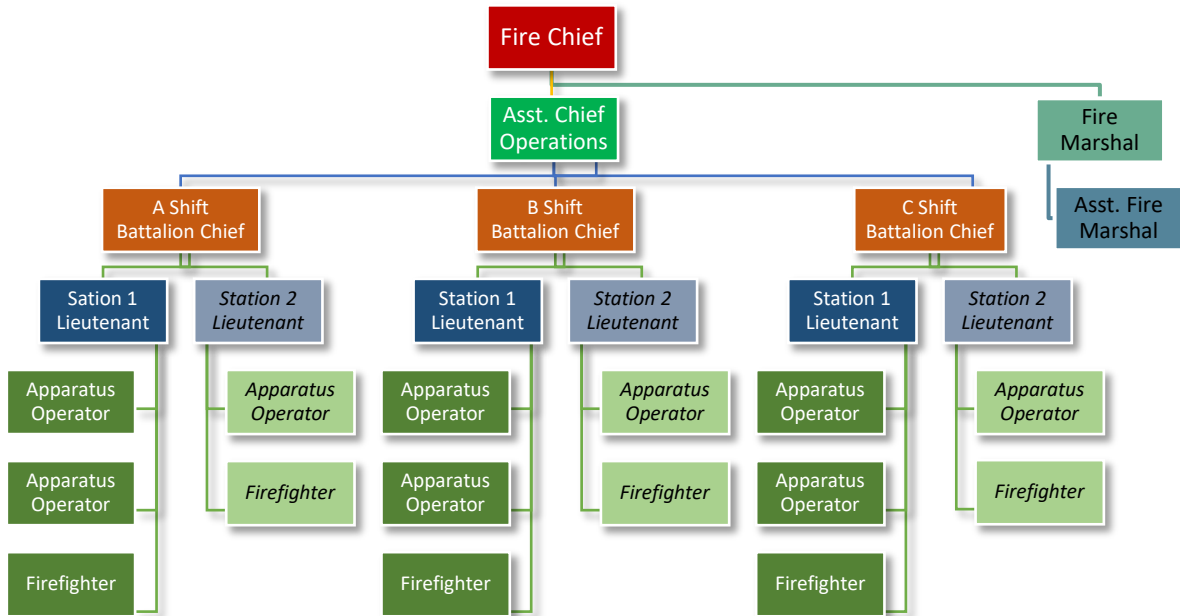
- 1) **Erect Fire Station #2** Deploying at least an engine company on Chappell Hill St. approximately 0.25-mile south of State Highway 290 Bypass deploying 1 of the 3 engine companies presently assigned to the existing fire station.
- 2) **Based on possible future development** 1 additional fire station may be required as the areas on the Westside of the City of Brenham develop to the extent an additional fire station is required. At present, the optimum location for the third fire station is near Old Mill Rd. and State Highway 290 Bypass. Future Fire Station #3 should deploy the third engine company presently assigned to the existing fire station.
- 3) **Staffing levels** for paid personnel are deficient. The report from ISO that was completed in 2012 stated that the department and city needed 18 firefighters on duty daily. Currently the fire department operates with a staffing level of 15 operational personnel total or five on duty daily.

- The second fire station has been needed for approximately 37 years. With the current growth of the south side of the city the second fire station, has been needed for a long time and this cannot be put on hold any longer. The fire station needs to be located next to Kruse Park Land for best access for our fire department services. The addition of this fire station will put our response times back in the parameters set forth by ISO. The fire departments plan is to hire the staffing while planning, purchasing, and



construction of the second station is in progress. The estimated cost for the #2 Fire Station is \$3,125,600.

- Be aware that the fire station study conducted by Mike Pietsch in 2016 he suggested the location for Station #3 on the west side of town.
- The Station Staffing model for 2 stations is shown below:



- Between fiscal year 2018-2020, the city would have to hire an additional three (3) personnel per shift, being nine (9) additional full time staff, for the staffing model for station 2 opening and operating. Estimated staffing cost would be \$640,323.

## 2020

### CONSTRUCT A TRAINING FACILITY / TOWER

Construct a Training Facility when Station #2 is built to conduct training exercises. The tower would be placed behind station 2 on the land the city recently purchased. This tower will also provide extra points in our ISO





score. The Brenham Fire Department conducts yearly training exercises that require the use of training facilities and training props. These trainings include but are not limited to hazmat refresher, vertical ventilation simulations, save your own rescue simulations, rope rescues, Rapid Intervention Team (RIT) and May-Day training. The department conducts an annual live fire training exercise and currently rents the burn house at TEEX. The training tower could be rented to other agencies to help with yearly expenses and maintenance of the facility. The department members go to numerous other training facilities around the state to get annual re-certifications in various specialized areas such as Hazmat Tech, Rope Rescue, Confined Space Rescue, and Swift Water Rescue. The Brenham Fire Department currently does not have a training tower or an area dedicated to assemble permanently fixed training props for the departments use. With the construction of a training tower, it would allow us to do almost all of our training in house. The specialized skills such as rope rescue need to be trained on more than once a year, but currently without having a facility to conduct these trainings inside the city, and having limited staff it is difficult to schedule our personnel to take off and be out of service and out of town for training. The cost for this would be approximately \$900,000 *(Sept. 2018 quote)*.

## REPLACE DEPARTMENT SELF CONTAINED BREATHING APPARATUS (SCBA)

- The current SCBA's do not meet the new industry standards and regulations. Texas Commission on Fire Protection (TCFP) regulates this and our SCBA's model are 2002. The current version is 2013 with 2018 about to be released.
- The current SCBA's are 11 years old.
- The current SCBA's would have to go through a major overhaul to be brought up to current standards.
- Cost vs benefit analysis will be conducted on repair vs replacement of the old units. Normally the best option is to replace with warranty to help with maintenance cost
- Projected cost \$567,378 *(Jan. 2018 est. quote)*

## HIRE AN ASSISTANT FIRE MARSHAL

- Currently an immediate need for an Assistant Fire Marshal.

- Annual inspections continue to increase and annual inspections are currently behind schedule.
- Fire Marshal currently spends the majority of time on plan reviews and new construction inspections, along with annual inspections and fire investigations
- When Fire Marshal is out of town, there is no backup or coverage for inspections
- Currently sending departmental personnel (Lieutenants) through a 200-hour inspector class for possible future career advancement.
- Projected Salary Cost \$80,351

## UPDATE EMERGENCY OPERATIONS CENTER (EOC) ELECTRONICS

- EOC was built in 2009 with up-to-date electronics
- EOC used and meeting point for City & County Emergency Operations
- Fire Department conducts a variety of classroom training classes
- Numerous other city departments use it for training classes
- Audio Visual system needs to be updated
- Projected cost for electronics upgrade - \$95,000 *(July 2018 Quote)*

## 2021

### SEPARATE EMERGENCY MANAGEMENT COORDINATOR POSITION

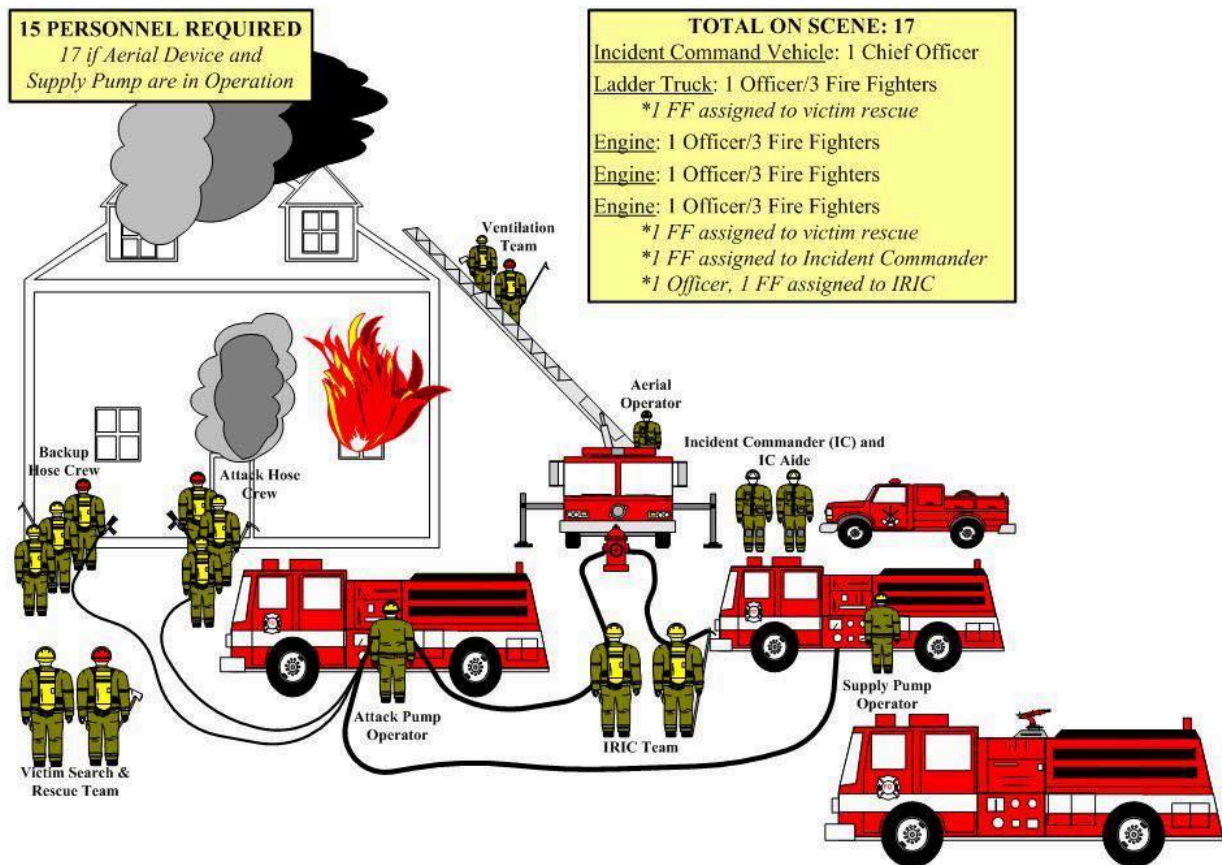
- Position should to be separated because of increased workload on the EMC side of things.
- Federal, State and local requirements for multiple plans in different areas to be constantly updated
- Time to develop, maintain and test emergency management plans in according to state & federal regulations
- Study emergency plans used in high risk facilities to help develop our plan
- Estimated Salary and benefits \$75,000

## 2023

### MEET NFPA 1710 COMPLIANCE

Meeting NFPA 1710 compliance on first out engine and truck companies staffed with a minimum of four personnel. This standard is based off the NIST research.

- **NFPA fire ground-staffing model.** The goal of the Brenham Fire Department is to meet NFPA 1710 compliance, which is the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.
- **NFPA 1710** provides the minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments. For the 2016 edition of the standard, subsection 5.2.4 on fire department service deployment revised to include three new occupancies, along with the appropriate response staffing levels for each. The minimum staffing level for each occupancy is listed below
- **Response Model** this response model based off a basic 2000 sq. ft. residential house.



- **Single-Family Dwelling** — Minimum of 14 members (15 if aerial device is used) the initial full alarm assignment to a structure fire in a typical 2000 sq. ft. (186 m<sup>2</sup>), two-story, single-family dwelling without a basement and with

no exposures must provide for a minimum of 14 members (15 if an aerial device is used).

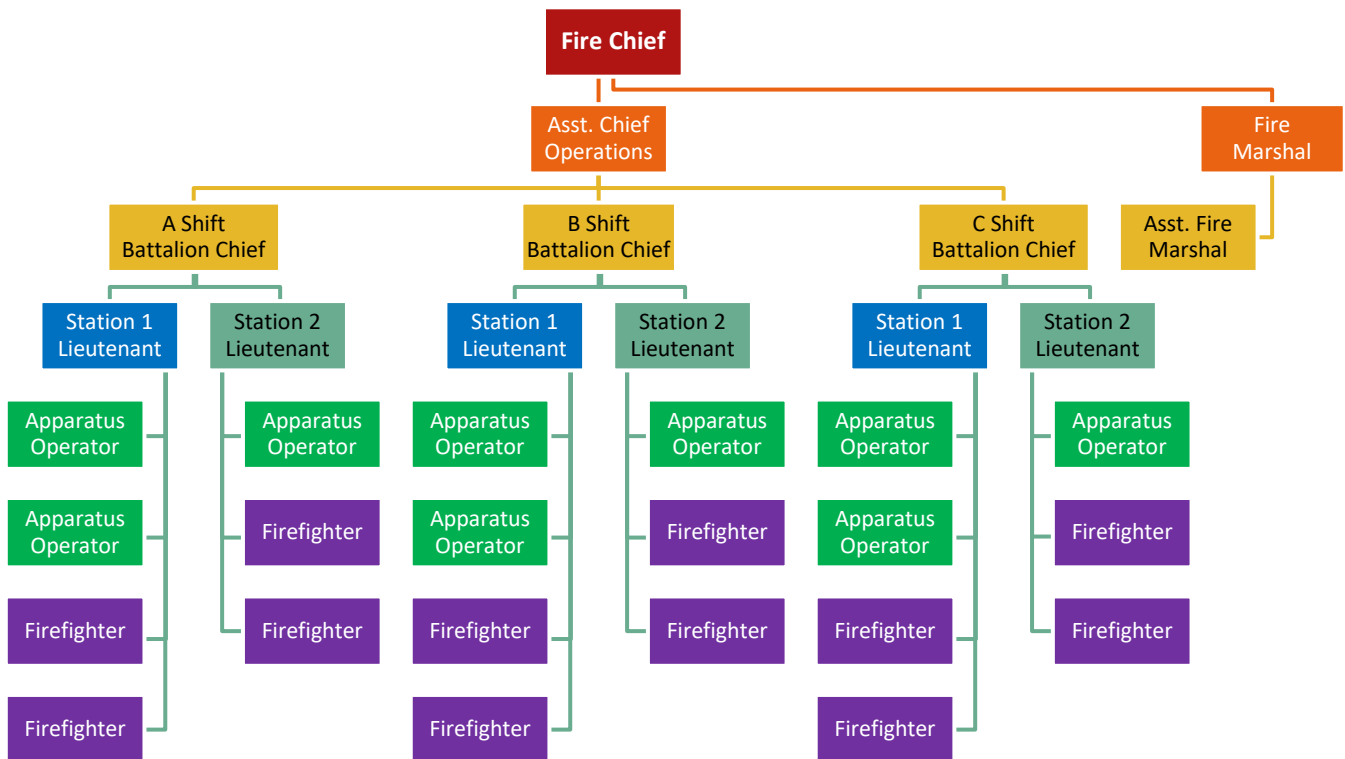
- **Open-Air Strip Mall** — Minimum of 27 members (28 if aerial device is used) The initial full alarm assignment to a structure fire in a typical open-air strip shopping center ranging from 13,000 sq. ft. to 196,000 sq. ft. (1203 m<sup>2</sup> to 18,209 m<sup>2</sup>) in size must provide for a minimum of 27 members (28 if an aerial device is used)
- **Garden-Style Apartment** — Minimum of 27 members (28 if aerial device is used) The initial full alarm assignment to a structure fire in a typical 1200 sq. ft. (111 m<sup>2</sup>) apartment within a three-story, garden-style apartment building must provide for a minimum of 27 members (28 if an aerial device is used).
- **High-Rise** — Minimum of 42 members (43 if building equipped with fire pump) The initial full alarm assignment to a fire in a building with the highest floor greater than 75 ft. (23 m) above the lowest level of fire department vehicle access must provide for a minimum of 42 members (43 if the building is equipped with a fire pump)
- **Current Staffing Model-** the Brenham Fire Department currently staffs five personnel per shift. The Captain on duty is assigned to respond in a command vehicle for fast response and to manage incidents. This leaves four personnel that must deploy two apparatus to a fire scene. The first out apparatus is staffed with three personnel, which is one firefighter short of the standard. The second apparatus is staffed with one firefighter leaving the apparatus three personnel short of the standard. The second apparatus responsible for task such as water supply, ventilation, and rescue. With only one personnel on this apparatus, this causes a major problem when any other actions are needed during or after the initial fire attack. Currently we are short four personnel on each shift, and these positions are vital to providing quick and effective firefighting and rescue operations on each incident. The fire department is supplemented by volunteer firefighters but the amount of volunteer firefighters that respond or their response time varies, and even with the volunteer response, we do not have sufficient personnel on scene to safely and effectively complete the task that need to be done in a timely manner.
- **Other Considerations-** in 2016 there were 62,085 firefighter injuries reported in the US. Of these, 24,325 were injuries on the fire ground. In 2016 there were 60 firefighters killed in the line of duty. The department currently does not have enough staff to perform a rescue operation, if a firefighter becomes injured or disoriented during a fire attack. The notion that one

RIT is adequate to execute a rescue is a fallacy. This fallacy is clearly illustrated by studies conducted by the Phoenix, AZ, Fire Department after the loss of Firefighter Brett Tarver in a supermarket fire in 2001. The studies, conducted by the fire department and Dr. Ronald Perry of Arizona State University, demonstrated several items that must be clearly understood in the realm of rapid intervention:

- One in every five rescuers needed to call their own Mayday
- It took an average of eight to nine minutes for a RIT to reach a downed firefighter
- It took an average of 22 minutes to find, package and secure an alternate air supply
- It took an average of 12 firefighters to rescue one downed firefighter
- These results were obtained in conditions not containing high heat and smoke that would be encountered on the real fire ground
  
- **Supporting Details-** the Brenham Fire Department has transitioned from a volunteer department that was supplemented by paid personnel, to a career department that is now supplemented by volunteer firefighters. The number of volunteer firefighters have been declining across the United States and though we have used as many ideas and additional benefits for recruitment, we are not seeing any increase in our numbers. The department has worked short staffed for several years now and we are fortunate that a serious injury or death has not occurred on the fire ground. With the growth of the city and our call volume, it is essential that we start taking the steps to increase our staffing levels so that we can effectively save lives and property. Below are two options
  
- **Option 1-** The most effective option for both firefighter and civilian safety and rescue, would be to increase the number of daily staffing from five personnel per shift to ten personnel per shift. The increase would be the addition of fifteen personnel to the department. The department recognizes that this is a major increase in departmental staffing levels and would have to be phased in over the course of time. The approximate staffing cost of this would be \$1,067,205.
  
- **Option 2-** The second option that would still allow the city to maintain NFPA 1710 compliance would be increase the number of daily staffing from five personnel per shift to nine personnel per shift. The increase would be an addition of twelve personnel to the department. This option would work as long as the department is at full staffing level for the day. In the

event of a staff member being on vacation or being on sick leave, this would leave the daily staffing level at eight personnel per shift and not in compliance with the standard. This option would also be very feasible if the department had funding for part time personnel to cover when full time firefighter is on vacation or sick leave, this would also reduce the amount of overtime we would use annually. The approximate cost of this would be \$853,764.

### Organization Chart with ten (10) personnel per shift with three (3) shifts



# 2025-2030

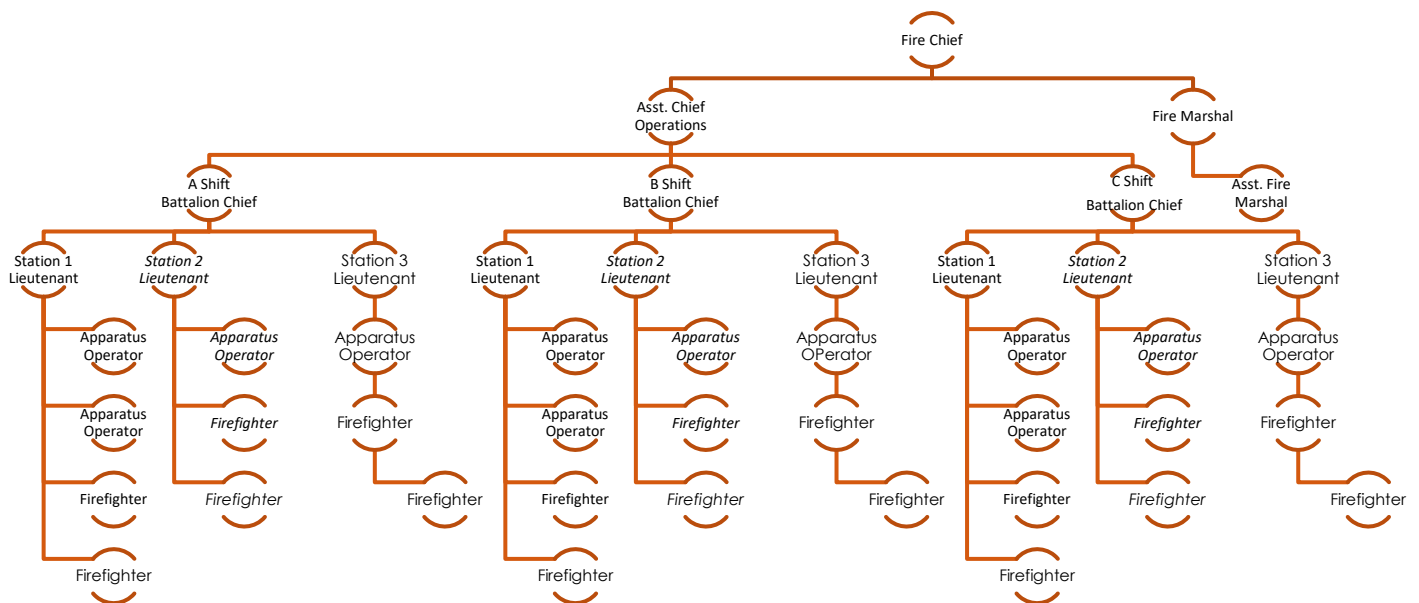
## FIRE STATION #3

With the current and future residential and commercial growth of the western part of Brenham, it is essential that we plan for fire protection in that growth area. Currently several hundred residential homes along with apartments and commercial growth are being planned for and currently being developed. With the addition of this growth comes an increase in demand for service from the fire department. The current location and the location of the proposed fire station #2 would put our response times above national standards. To do this we would need to:

- **Acquire land for station development**
- **Engineer and design the structure**
- **Acquire additional apparatus for station**
- **Hire additional staffing based on station needs.**
- **Purchase additional equipment and supplies for station**

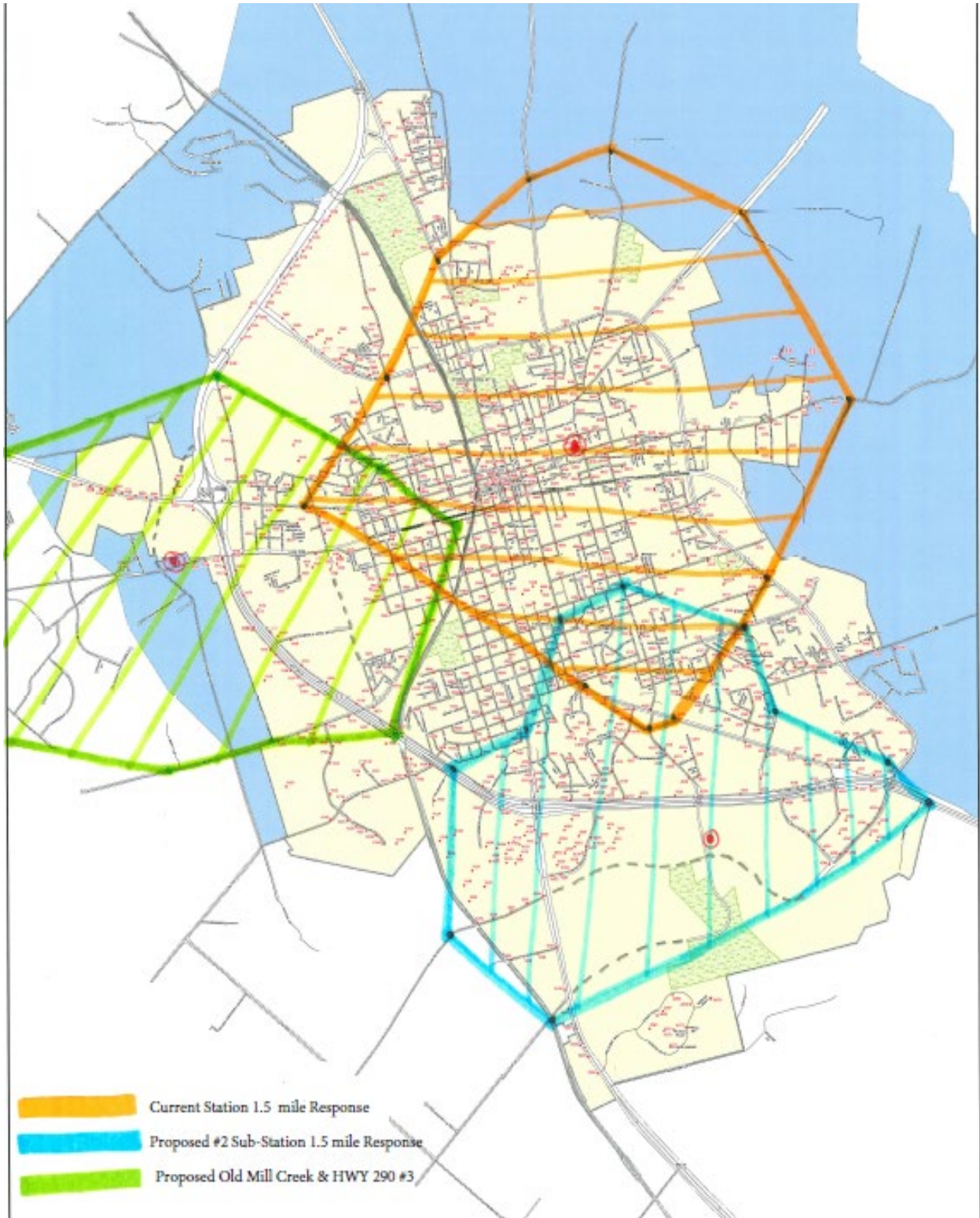
## FIRE STATION #3 STAFFING MODEL

To accomplish the staffing goal below the city would have to increase staffing levels to 14 personnel per shift. To accomplish this goal additional positions could be phased in over 3 years starting in FY 2023.





# FIRE STATION LOCATIONS & PROPOSED LOCATIONS WITH 1.5 MILE TRAVEL DISTANCE



## Facilities



### FIRE STATION #1

- Built in 1978
- Adequate for current staffing.
- Has been remodeled in 2017
- Needs a vehicle exhaust removal system in truck bay area. This would cost approximately \$100,000
- Lacks storage area. To correct this we would need to tear down the existing storage building that

has issues and construct a new one. The approximate cost of construction would be \$75,000. Some of the storage needs could be address with Station #2.

- Will need to continue to do maintenance on the building with joint sealing/caulking. The building will need a roof replacement costing \$75,000 in the next five years

### STORAGE BUILDING AND GYM LOCATED AT STATION #1



- Built in mid-1980's by Fire Department Membership
- Limited Space for Storage – PPE clothing, chemical foam products
- Adequate GYM space
- Building needs to be re-skinned and reroofed due to constant water leaks. To reskin the building it would cost \$28,000, looking to budget in 2020
- New building with additional

storage would cost approximately \$75,000

- Proper maintenance will extend building life 20+ years



## TRAILER STORAGE LOCATED AT STATION #1



- Built in 2017
- Adequate Space
- 25 – 35 years with proper maintenance expected life
- We may need to climate control this building in the future because we store our Fire Prevention Props.
- Estimated AC cost \$25,000

## FIRE MUSEUM

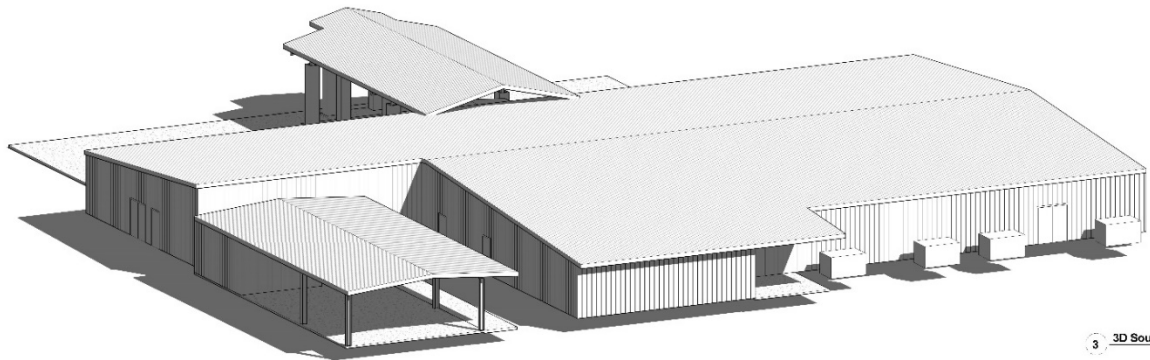


- Built in 2006 by donations
- Limited space for displays and trucks
- Future Plans would be to join Steamer building and Fire Museum together
- Needs to have restrooms added at an estimated \$ 200,000 for both projects, estimated 2028 completion

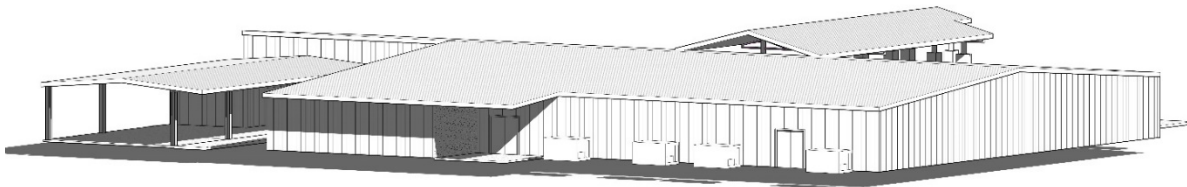
## BRENHAM FIREMAN'S TRAINING CENTER



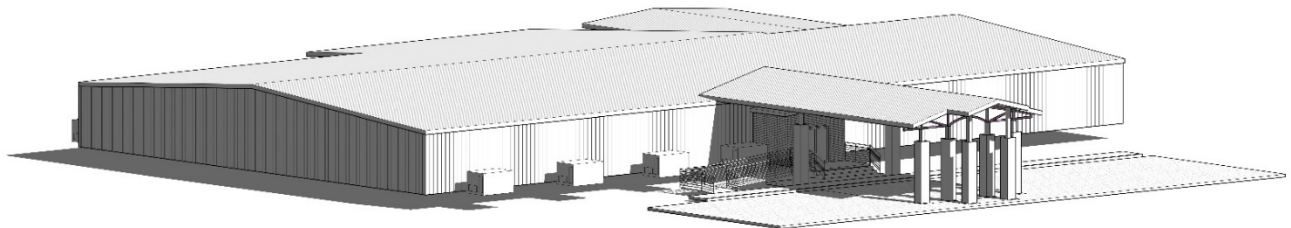
- Built in 1983
- Owned and Operated by the Fire Department Membership
- The building rentals and the 50 years of fundraisers that the Fire Department hold annually has raised over a million dollars that have been put back into the community.
- Rented by the Public for Community Events with a capacity of 800 people
- Restrooms need to be brought up to ADA standards \$600,000 to \$2.5 million
- Adequate space for events – needs more table & chair storage space
- Not the City Responsibility but is another function that the Fire Department provides for the Citizens
- The next pages you can see why this building is so important to the Citizens of Brenham and the Fire Department.
- Also attached are some concept drawings of the renovations and improvements that the membership would like to do



3 3D South

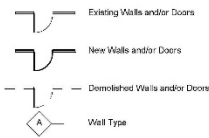


2 3D SE Corner



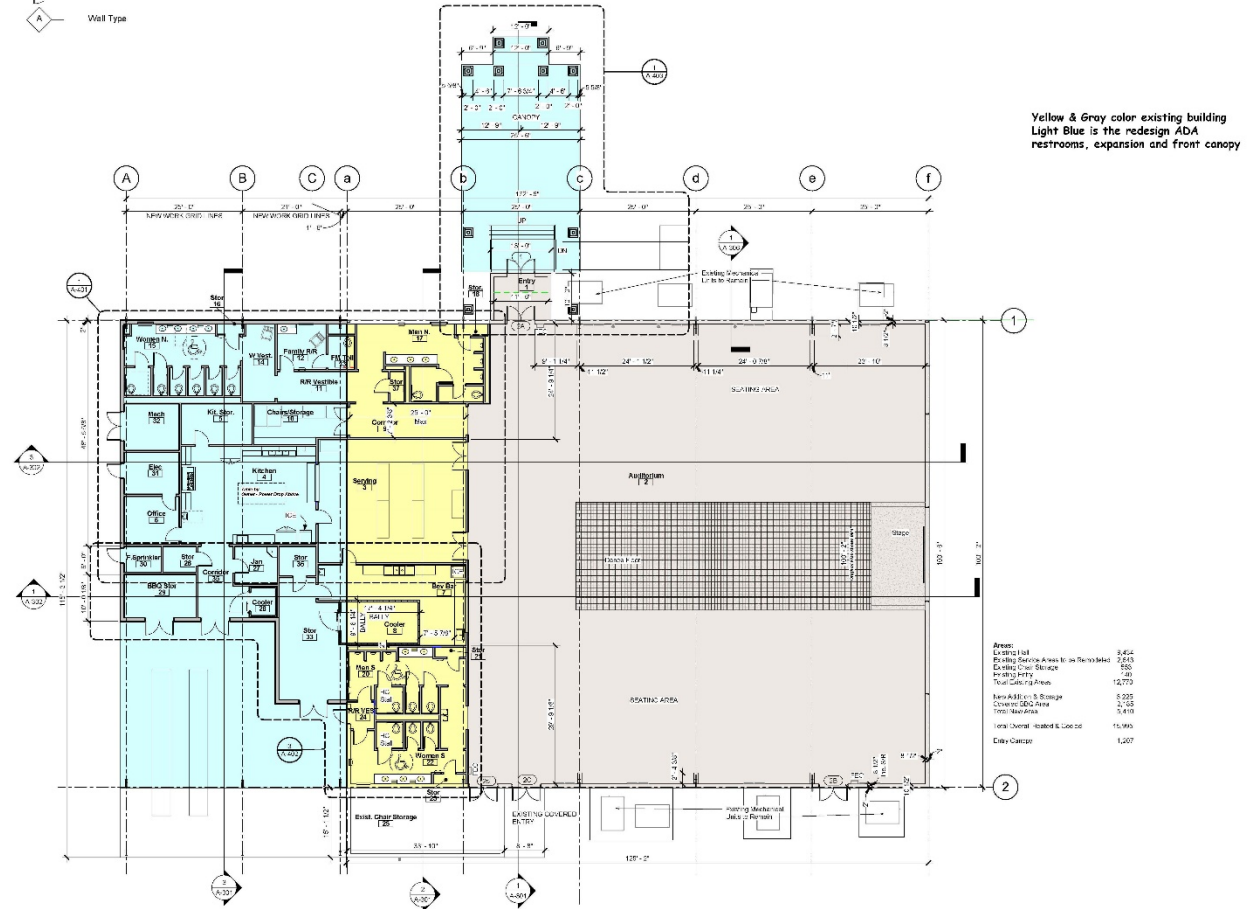
1 3D NW Corner

Wall / Door Legend



Fireman's Training Center Concept Expansion Drawings

Sheet Keynote Legend	
Key Value	Keynote Text



In the conceptual floor plan above the restrooms, are ADA compliant and we have done better organizing to help with the kitchen and serving area. We have put in additional storage areas for tables and chairs. The canopy will be added in the front to help with unloading of guest during inclement weather. The parking lots will be striped and back parking lot will be topped with an all-weather surface. The cost of this project has been the hold back in getting it accomplished.

- Attached on next pages are pictures of some of the items that were purchased by the membership with proceeds from Training Center rentals, donations and fundraisers though out the years. The Fire Department membership along with City Council makes sure that the Department has the most up to date equipment we can afford.



## BFD Membership Purchases



1978 Power Wagon Booster \$22,995.



1981 Chevrolet Rescue Attack Pumper \$72,139



1998 American LaFrance Rescue Pumper Truck \$259,866



2001 Ford F550 4X4 Booster Truck - \$63,490



2011 Ford F550 4X4 Booster Truck Partially funded by Grant Funds and \$25,000 donated from membership - Total cost of truck \$103,940



2 - Thermal Imaging Cameras Cost \$3,995.00 each



Hurst Rescue Jaws Cost \$5,400.00



Hurst X-Tractor Cutter Cost \$4,800.00



3 - K12 Fire Rescue Saw - Cost \$6,631



2012 Wildland Gear Suits \$400 per suit Purchased \$10,000 worth for Department Members





2018

Fire Prevention Trailer \$13,818.00

Generator \$1,399.00

Trailer Wrap \$5,200.00



2016 Stabilization Equipment - \$12,318.80



Over Several Years

5 - Thermal Imaging Cameras

\$ 42,790.00



2014 Smoke Machine \$3,250.00



2015 Jaws Units – 3 Sets - \$53,913.00

Purchased AED's \$12,062.41



Generator Lights \$1,200.00 each



## Vehicles and Equipment



\*Replacement year expected 2024

\*Estimated replacement cost \$130,000



\*Replacement year 2026

\*Estimated replacement cost \$1,900,000



\*Replacement year 2026

\*Estimated replacement cost \$1,000,000



Rescue 2 - 2015 Pierce Dash Rescue Pumper

\*Replacement year  
2034

\*Estimated  
replacement cost  
\$900,000



Engine 1 - 2015 Pierce Dash Pumper

\*Replacement year  
2034

\*Estimated  
replacement cost  
\$800,000



Engine 4 - 2002 Ferrara Inferno 1500 gpm top mount pumper

Replacement year  
2022

Estimated  
replacement cost  
\$800,000





Command 1

Replacement year  
2028

Estimated  
replacement cost  
\$41,000



U1 - 2017 Ford F-350

Replacement year  
2030

Estimated  
replacement cost  
\$63,000



2010 Polaris 6x6

Replacement year  
2027

Estimated  
replacement cost  
\$30,500



2013 Hazmat Trailer

Replacement year

2033

Estimated replacement cost

\$16,000



Washington County Air Trailer — Partnership with Brenham FD & WCFFA. Trailer owned by WCFFA and Brenham owns equipment inside. Purchased in 2007. Equipment in trailer; Cascade Air System for filling SCBA bottles, generator, tripod lights, two airline hose reels w/100 ft. each. 2007 Trailer cost \$5,400 — Equipment cost \$29,900



2010 Texas Bragg Trailer  
For hauling 6x6 Polaris Ranger

Replacement Year

2050?

Estimated Replacement Cost

\$6,000



## 2018 Haulmark Trailer



Fire Prevention Trailer

Used for hauling fire prevention shows and Fire Marshal equipment to investigate fires. Purchased with Community and BFD Membership donations

Replacement Year

2045

Estimated Replacement Cost

\$25,400