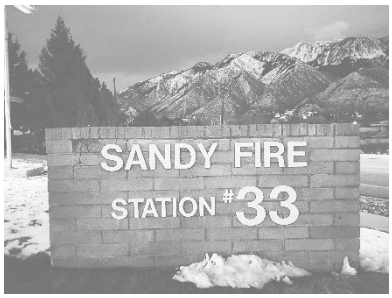

General Management and Operations Study of the **Sandy City Fire Department**

CONSULTANT'S FINAL REPORT

June 2024

Presented by
Public Consulting Group LLC
Public Safety Consulting Services

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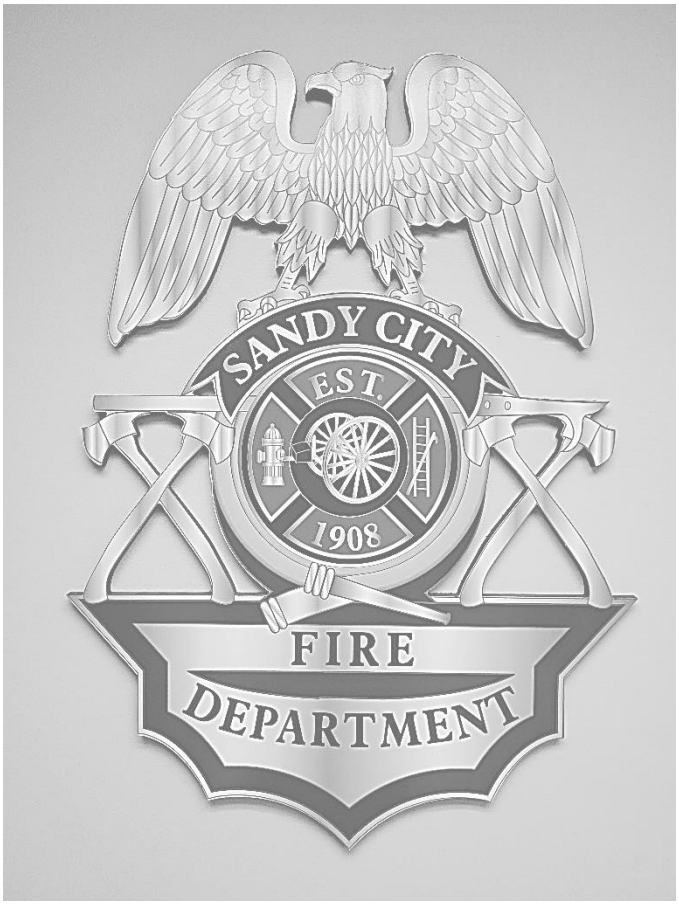

SECTION 1. PROJECT INTRODUCTION

1.1. Introduction

The status of the Sandy City Fire Department (SFD) is best described as a perplexingly culturally positive organization that exceeds traditional expectations, met by an operational environment that is trying to "catch up" from historically hindering staffing, unit deployment, and apparatus design models. This has been exacerbated by delayed capital improvements and apparatus replacements, ultimately resulting in additional expenses that may have otherwise been allocated toward improvement, rather than maintenance. Irrespective of the Department's past, its future is quite promising.

Operationally, the Department exists within a highly competitive workforce environment where employees are faced with a "buyers' market" in terms of job selection. As a medium-sized department with respect to some of its comparable neighbors, all of which are surrounded by two metropolitan-sized departments, there's a lingering urge to offer some of the same specialty services that these larger entities can both afford and sustain, however, the SFD (and its comparable neighbors) cannot. Therefore, opportunities exist for the Department to shift its future focus from being a stretched and scarce multi-specialty response organization to a focused and functional all-hazards initial response resource.

Hierarchically, the Department is under the direction of the Mayor and funded by the City Council, who are admittedly fiscally conservative in their historical practices but remain supportive in building a sustainable Department. Based on our consulting team's observations, moreover, the City's longstanding reluctance to sufficiently raise taxes has led to years of beyond lean operations that have been met with a breaking point in recent years. Its subsequent "one-time" need to fund otherwise repetitive necessary expenses has led to a reluctant budget process relationship between the Fire Department, City Council, Mayor's Office, and City Administration, all because of an expressed Citywide lack of available revenue to support many of its service needs, not just service wants.

Combining all these elements – including the consideration of the Department's recent progress toward improving its staffing levels and breaking ground on a long-awaited new fire station and headquarters facility – the Sandy City Fire Department remains on a positive trajectory that only requires course correction, rather than the rapid redirection that some of its colleagues within the fire & emergency medical service industries throughout the country require. This course correction, however, comes with an inflated cost on the heels years of "holding the line" with respect to longstanding fiscally conservative approaches.

1.2. Project Overview

1.2.1. Scope of Work

The City of Sandy submitted a Request for Proposals (RFP) due in October of 2023, and Public Consulting Group (PCG) was successfully awarded the project in early January of 2024 after an interview and presentation process. The project officially began in February 2024 and included the below-listed elements in its Scope of Work (copied from the RFP).

Strategic Plan Review

- Review departmental missions and objectives for adequacy, appropriateness, and effectiveness.
- Outline recommended strategies for achieving departmental missions and objectives and provide time-specific, results-oriented objectives stated with enough specificity for implementation.
- Identify any missing critical issues facing the Fire Department over the next five to ten years.
- Analyze the impact of anticipated growth on staffing and service levels.
- Provide recommendations for amendments to the existing departmental strategic plan.

General Management Review

- Provide a review and analysis of organizational structure, staffing levels, and staffing requirements by function and make recommendations for improvements.
- Review the number, type, and purpose of the department's various organizational components and interrelationships that exist between them. Determine if similar or compatible functions are assembled in logical groupings and the extent to which authority and responsibility is properly allocated between them. Assess the manner that the efforts of all components are planned, directed, coordinated, and supervised.
- Determine whether the allocation of resources in the department are efficient and adequate to meet the needs of the city.
- Analyze the organizational structure of the Fire Department as it relates to accepted standards of organizational theory and practice. Determine if the organizational structure complies with professionally accepted concepts such as span of control, logical grouping of activities and functions, and other organizational components.

- Consider enhancements that may be justified in the future in the event of additional staffing and/or modification to the organizational structure.
- Review trends in providing the city's fire and emergency medical services. Compare best practices in communities of similar size and demographics with Sandy Fire's approach.
- Identify tasks that can be completed in a more efficient and/or economical method such as reassigning staff, consolidating functions, making technology upgrades, or providing additional resources, including volunteer opportunities.
- Classify fire and emergency medical services and operations into a systematic organization that allows costs and effectiveness to be understood and differentiated. These services and operations shall include those expected of a Fire EMS and Ambulance transport-based system, of a modern municipal fire department matching the size and workload of the Sandy Fire Department and does not necessarily conform to those currently being provided by the Department. Possible services and issues should include the identification of services that may be added, eliminated, or combined, to provide appropriate levels of service for Sandy City.
- Review administrative functions for effectiveness and efficiency, coordination and scheduling of training; the current state of fleet, equipment, and facility needs; and planning for future capital needs; utilization and implementation of available funds.
- Review Sandy Fires' communications policies, priorities, and practices, and determine if these serve the needs of the Community.

Facilities, Equipment, and Technology Review

- Provide a detailed review and analysis of both facilities and vehicle equipment needs (including fleet and facility plan suggestions, prioritizations, and consolidation or expansion evaluations according to appropriate national standards). *An in-depth review and analysis of fleet policies and procedures is not required.
- Provide a review and analysis of personnel equipment needs.
- Evaluate the effects of emerging trends in technology on the range of services and delivery provided by the fire department.

Other Related Items

- Provide projections, inferences, or recommendations for managing any increased workload impact to other City departments resulting from changed Fire operations.
- Evaluate the procedures and operational response for a wildland urban interface fire.
- Recommend any organizational improvements that can be made to enhance overall service.

1.2.2. Acknowledgements and Appreciation

Throughout the course of this Study, multiple stakeholders have played a key role in providing direct City, Department, and local system insight and historical context. Specifically, the engagement provided by the leadership from the City Council, Mayor, Administration, and Fire Department should be commended, and our consulting team would like to extend our sincere appreciation for all their efforts during this Study. Additionally, the hospitality extended by the Fire Department crews during our team's on-site visit should be noted as exemplary and speaks volumes for their dedicated service to the City, its residents, and its visitors.

Acknowledgment is also extended by our consulting team to the neighboring fire chiefs, dispatch center representatives, and supporting stakeholders who engaged in this Study by providing insight directed toward the betterment of the Fire Department and the collective emergency services system within the greater Salt Lake Valley.

1.2.3. Project Team

Chief Tim Nowak brings over 20 years of fire & EMS industry knowledge and experience to this project as a primary report author and **Lead Consultant/Subject Matter Expert**. Tim holds a Bachelor of Science degree in Fire Science, an Undergraduate Certificate in Human Resource Management, an Associate of Applied Science degree as a Fire Protection Technician, and a Technical Diploma as an EMT-Paramedic. He is a Nationally Registered Paramedic (NRP) with two decades of clinical and instructional experience, including a variety of current and former accompanying critical care, instruction, and management-oriented credentials. His background includes prehospital and hospital-based clinical care, training delivery and development, quality assurance and data management, and protocol development for EMS agencies ranging in rural, suburban, and urban demographics throughout four states. In addition, he has over a decade of experience as a career firefighter in an urban fire department with transporting ambulance services. As an experienced chief officer, he brings executive-level experience overseeing the areas of EMS administration and compliance, operations, special operations and emergency preparedness, logistics and supply chain management, accreditation, policy development, and community risk reduction.

Chief Steve Noble brings over 30 years of fire & EMS industry knowledge and experience to this project as a primary report author and **Consultant/Subject Matter Expert**. Steve holds a Bachelor of Science degree in Fire Science, an Associate of Applied Science degree in Fire Science and in General Studies, and multiple fire service credentials in incident command and hazardous materials response. His operational and chief officer experience extends from fire service and fire-based EMS response models to specialty and hazardous materials response arenas. In addition, his professional experience includes work in the national emergency preparedness and response landscape as an experienced safety officer,

task force leader, emergency manager, and internationally as a terrorism response instructor. Combined with his experience as an educator at the national and international level within many of these disciplines, Chief Noble brings a development-focused mindset, along with a strategic and tactical leadership approach, to his fire/EMS consulting work.

Ms. Kaitlynn Edwards brings over nine years of administrative, operational support, and project management experience to this project as its **Project Manager**. Kaitlynn holds a Bachelor of Arts degree in English and has experience serving in both project support and project manager roles for multiple consulting projects. Her background also includes report copy editing, contract management, project research, and business development.

Chief Ken Riddle brings over 40 years of emergency service industry knowledge and experience to this project as its **Project Advisor** and as a **Subject Matter Expert** within the fire/EMS industry. Ken holds multiple fire service credentials, has prior clinical and administrative experience in EMS system delivery, and is also credentialed as an Executive Fire Officer (EFO). His background includes extensive executive chief officer experience within the fire service overseeing all levels of operations within a large, metropolitan fire/EMS system. In addition to this experience, Ken has been providing fire and EMS consulting services for over 30 years.

Ms. Alina Coffman brings over 15 years of project management experience to this project as its **Project Director** and as a point of contact for this project's execution. Alina holds a Master of Public Affairs degree and is a certified Project Management Professional (PMP). Her background includes experience in EMS agency cost collection and project management oversight for multiple fire and EMS operational studies.

Ms. Rachel Zemanek brings over 10 years of copywriting and project management experience to this project as a member of the **Project Support** team. Rachel holds a Bachelor of Arts degree in Project Management and is a certified Project Management Professional (PMP). She is also a Nationally Registered Paramedic (NRP) and certified firefighter with a background in EMS education, peer support network & leadership, and EMS client relations. Her experience working in rural and urban response areas throughout her career spans across three states and allows her to bring a unique perspective to our team's projects. Her additional work experience extends into real estate and housing market analysis, media relations, content writing, and full-scale news/media copy editing.

Public Consulting Group LLC (PCG) is a leading national fire and EMS consulting firm with experience in providing feasibility studies, data analysis, strategic and master planning, operational assessments, cost reporting analysis, ambulance supplemental payment program design, and professional recommendations for public safety agencies.

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1.3. Final Report Introduction

1.3.1. Report Structure

The Sandy City Fire Department is hereafter referred to as the Sandy Fire Department, SFD, or the Department.

The overall structure of this Report begins with the introductory context for the project and transitions into our consulting team's community and Department research, data analysis, and stakeholder feedback. From there, our team begins to utilize a data-supporting approach toward identifying administrative, operational, and capital recommendations based on our findings and their relationship to the Department's *Strategic Plan*. The recommendations outlined within this Report are further expanded upon within each respective category and are prioritized and assigned a recommended timeline for implementation.

1.3.2. Methodology

This Report was developed through the utilization of direct data analysis, stakeholder feedback, independent research, and professional industry experience and insight by our firm's full-time consulting team. No forms of artificial intelligence were utilized in the data analysis or recommendation construction phases within this Study. The content within this Report is entirely an original work.

1.3.3. Limitations and Disclaimers

The primary limitation identified by our consulting team throughout this Study was the uniformity of provided data, as multiple collection sources and software are utilized within this process. Namely, there are two primary public safety answering points (PSAP)/dispatch centers – with a third accounting for a local private ambulance service, each of them tracking data elements in different manners. While our team was able to appropriately filter and analyze the data provided, our team still identifies overall incident tracking and call volume/type tracking to be a low-acuity limitation of this Study. Further details related to data limitations are outlined later in this Report. Overall, our team remains confident that the data reported in this Report is accurate and purposeful within the means and needs of this Study.

One key event that occurred during this Study was the unanticipated retirement of the Department's Fire Chief. While their departure did not disrupt the progress of this Study, it does serve as a noteworthy event that potentially impacts the future of the Department, as well as the reception of our consulting team's forthcoming recommendations.

1.3.4. Key Terms and Definitions

AEMT – Advanced Emergency Medical Technician; a traditionally basic life support EMS provider with limited advanced life support capabilities, such as Intravenous (IV) access and limited IV medication administration.

ALS – Advanced Life Support; commonly referring to a transport unit crew consisting of an EMT and a Paramedic, a first response or supervisory vehicle staffed solely by a Paramedic, or patient care provided by a Paramedic.

Analysis – Referencing this project, its Scope of Work, and the consulting team's research, findings, and recommendations; may also reference this document (in the appropriate context and as applicable); synonymous with the use of Study throughout the document.

BLS – Basic Life Support; commonly referring to a transport unit crew consisting of two EMTs, a combination of EMTs and AEMTs, or patient care provided by an EMT.

City – In appropriate context and when capitalized, refers to the City of Sandy as either the government body or its geographic boundaries.

City Council – Or "Council," in appropriate context and when capitalized, refers to the City of Sandy's governing city council.

Combat Firefighter – A local term referring to a firefighter (position) that is not assigned to a management role.

Department – In appropriate context and when capitalized, refers to Sandy Fire Department.

EMS – An abbreviation for Emergency Medical Service(s).

EMT – Emergency Medical Technician; a basic life support EMS provider.

Fire Department – In appropriate context and when capitalized, refers to Sandy Fire Department.

Medic Ambulance (MA) – The primary designator for ambulance units by the department; an ambulance staffed with at least one Paramedic and capable of providing an advanced life support level of care.

Medic Engine (ME) – The primary designator for fire engine units; fire engine staffed with at least one Paramedic and capable of providing an initial/limited advanced life support level of care.

Paramedic – An advanced life support EMS provider. In appropriate context and when capitalized, refers to the position of being a combat Firefighter/Paramedic.

Report – Referencing this document.

Sandy City – Used synonymously with the City of Sandy

SFD – An abbreviation for Sandy Fire Department.

Study – Referencing this project, its Scope of Work, and the consulting team's research, findings, and recommendations; may also reference this document (in the appropriate context and as applicable); synonymous with the use of Analysis throughout this document.

Valley – Referring to the greater Salt Lake County Valley (region), typically referencing its southern section, excluding the City of Salt Lake City.

WUI – An abbreviation for Wildland Urban Interface, being wildfires within an urban area with threat to properties and civilian population.

SECTION 2. CITY OVERVIEW

2.1. Community Overview

The City of Sandy (also referred to as Sandy City) is in the south-central region of Salt Lake County and is within 20 miles of downtown Salt Lake City. According to 2020 U.S. Census data, Sandy is the 6th largest city in Utah and the 4th largest in Salt Lake County, boasting a population of approximately 97,000 residents. [1,2] The City covers approximately 24 square miles of land and results in a per capita density of approximately 4,000 residents per square mile. **Figure 2.A.** highlights an overview map of Salt Lake County while **Figure 2.B.** highlights an overview map of the County with municipal borders. [3,4] **Figure 2.C.** displays an overview map of Sandy while **Figure 2.D.** includes municipal border map with other cities listed. [5,6] **Table 2.E.** includes a listing of the 10 most populous cities in Utah. [2] Overall, Sandy's population comprises just less than 10% of Salt Lake County's total population, which nears 1.2 million residents. [7]

Figure 2.A. Overview Map of Salt Lake County [3]

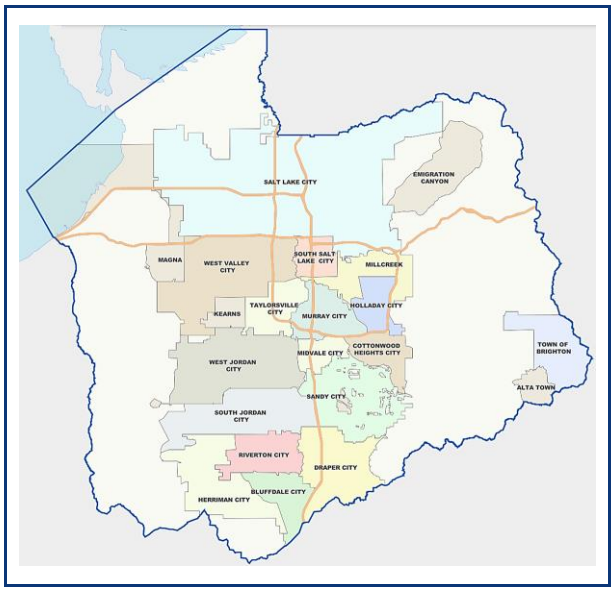


Figure 2.B. Overview Map of Salt Lake County with Municipalities [4]

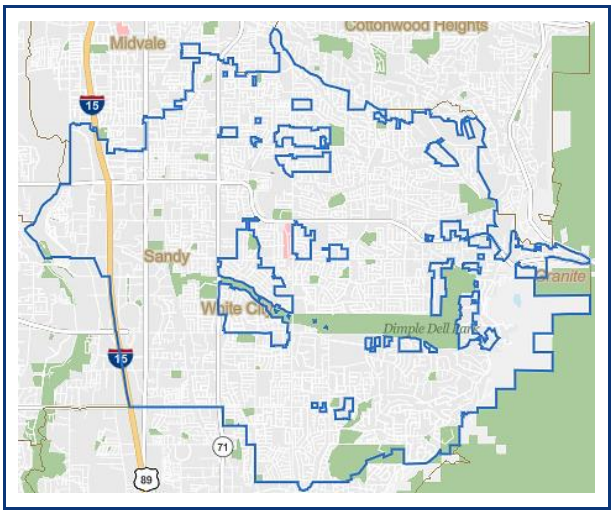


Figure 2.C. Overview Map of the City of Sandy [5]

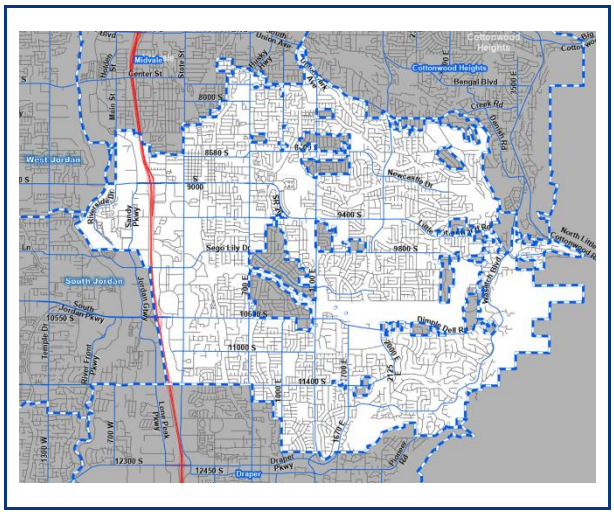


Figure 2.D. Overview Map of the City of Sandy with Municipalities [6]

City	State Ranking	Salt Lake County Ranking	Population (2020 Census)
Salt Lake City	1	1	199,723
West Valley City	2	2	140,230
West Jordan	3	3	116,961
Provo	4	----	115,162
Orem	5	-----	98,129
Sandy	**6**	**4**	**96,904**
St George	7	-----	95,342
Ogden	8	-----	87,321
Layton	9	-----	81,773
South Jordan	10	5	77,487

Table 2.E. Ten Most Populous Cities in Utah [7]

Sandy is a landlocked city surrounded by Cottonwood Heights and Midvale to the north, West Jordan and South Jordan to the west, and Draper to the south. The eastern border of Sandy shares a boundary with the Wasatch Range of the Uinta-Wasatch-Cache National Forest. Within the city are multiple "islands" of unincorporated communities like White City and Granite, which do not contribute to the tax base of the City, but often receive City services on a contracted basis through United Fire Authority (UFA).

Given its landlocked status and already consumed residual lots, Sandy's potential future population growth will largely depend upon building upward, rather than outward. This will likely equate to an increase of multi-family/multi-unit living spaces through the conversion of current buildings (commercial or industrial) into residential complexes and the rezoning

of current vacant lots into such multi-unit residential spaces. Outward growth potential has continued within the City as an increasing number of single-family residences emerge within the eastern foothills of the City, leading to an increasing wildland-urban interface challenge that has continued to grow for the Fire Department. The City's 2020 *Statistical Report* projects that Sandy will see a slow but steady population increase over the next few decades, increasing to over 100,000 residents and likely remaining less than 110,000 residents for the foreseeable future (**Figure 2.F.**). [8]

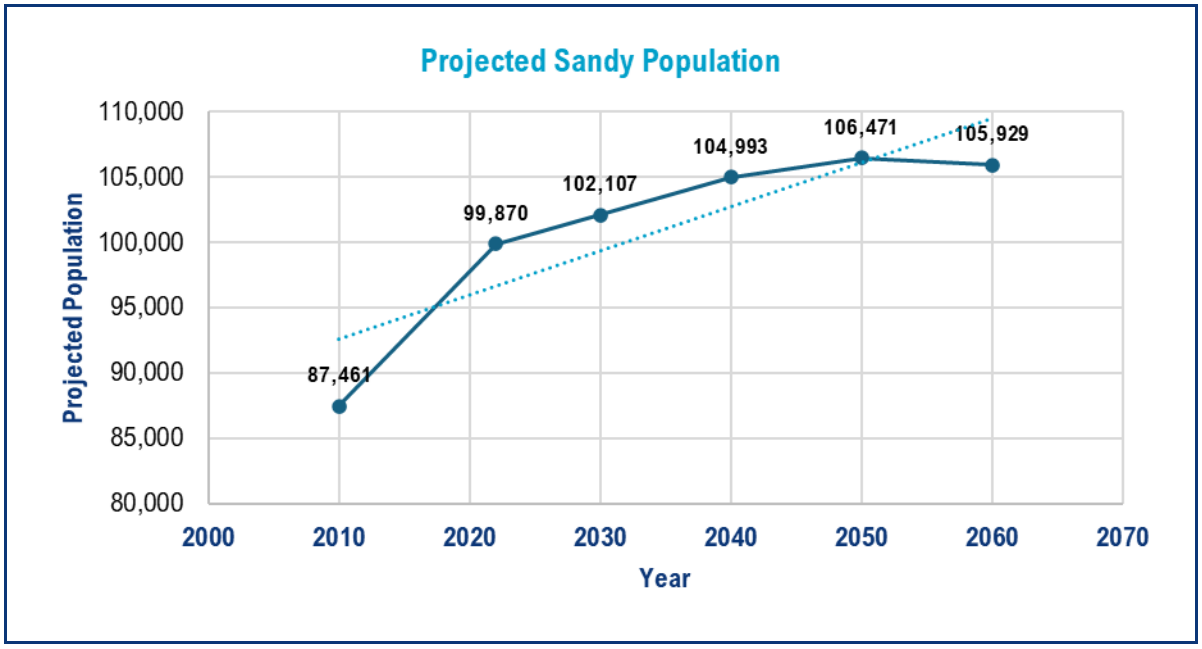


Figure 2.F. Projected Sandy Population [8]

An example of future anticipated growth within the City is the conceptual Master Plan of Sandy City's downtown, which is intended to revitalize and provide a boom to its population. There are an estimated 1,200 housing units already planned with a potential for more housing units and offices in the coming years. One parcel within the Cairns District includes a proposed $500 million renovation that is projected to add 400,000 square feet of office space, more than 225 additional hotel rooms, 50,000 square feet of restaurant and retail space, and an additional 200 apartments to the City's residential and commercial landscape.

Some key features of this project, based its renderings, include the following (**Figure 2.G.** shows a collection of images): [9]

- 18-story corporate tower; 10-story Class A office building (prestigious buildings with the most amenities) atop a high-end 8-story hotel
- 8-story Class A office building

- A unique sky bridge/restaurant space
- Additional retail and restaurant space
- Apartment complex
- Enclosed parking
- Pedestrian-friendly walkways and amenities

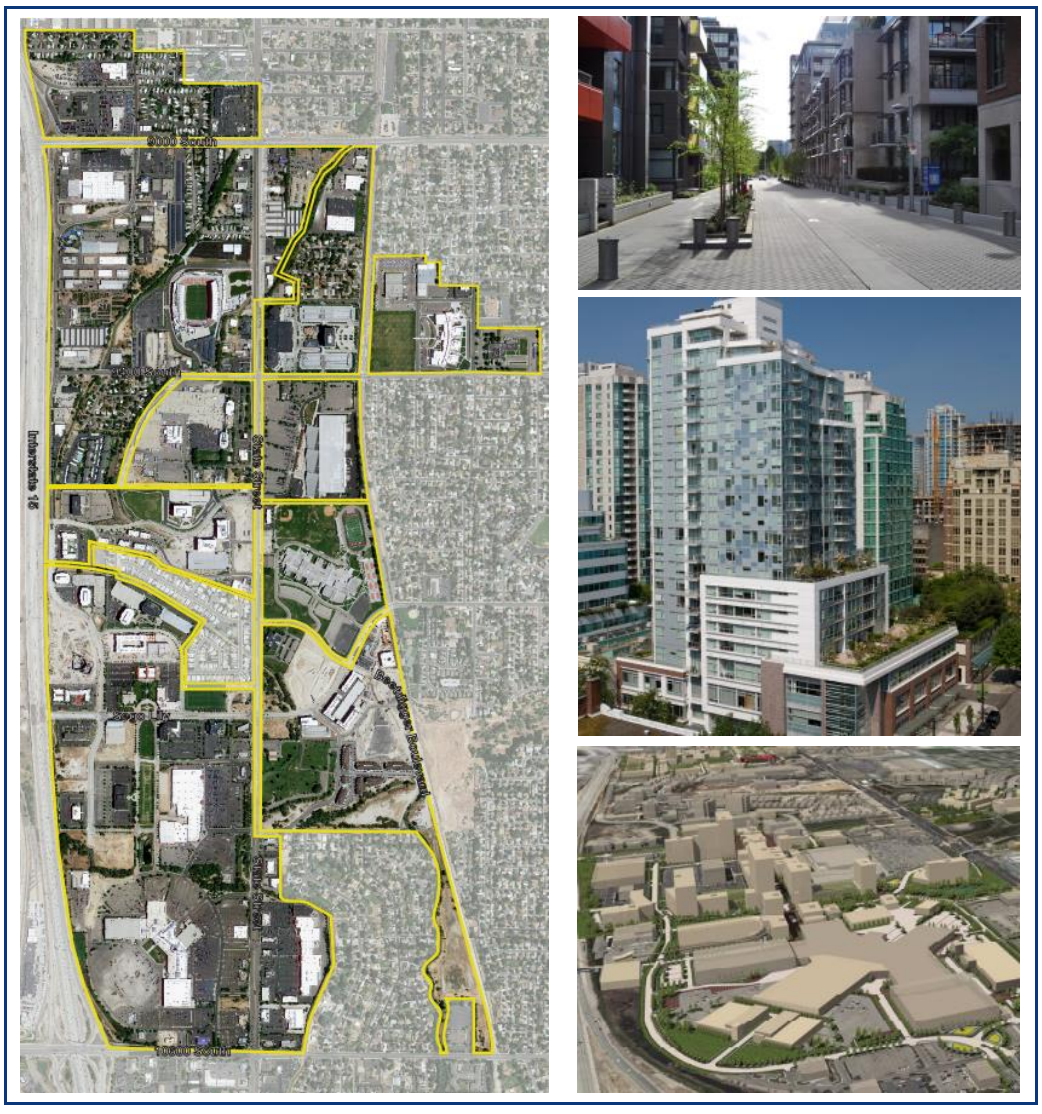


Figure 2.G. Collection of Cairns Development Images [10]

2.2. Community Health Profile

The conditions in which people – or populations – are born, grow, live, work, and age are referred to as their social determinants of health (SDOH). These conditions are shaped by the distribution of money, power, and resources throughout local communities; and the differences in these conditions lead to health inequities or the unfair and avoidable differences in health status seen within and between different regions. Elements that comprise SDOH include education access and quality, health care and quality, neighborhoods and the built environment, the social and community context, and economic stability (**Figure 2.H.**). [11]

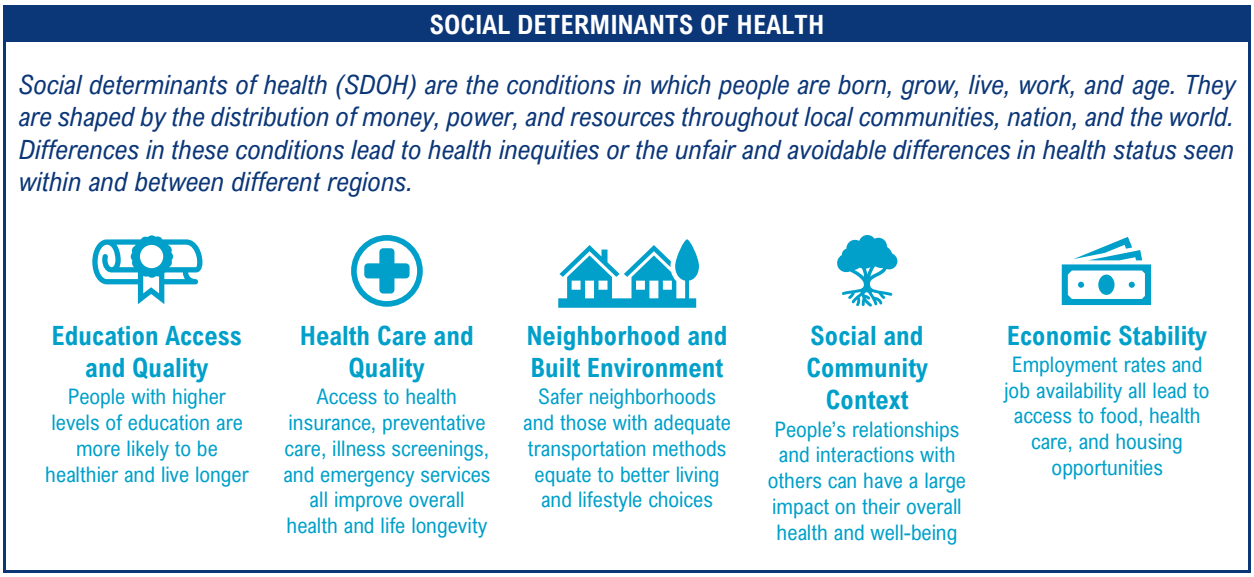


Figure 2.H. Social Determinants of Health [11]

Reflecting upon these various elements, the *Healthiest Communities Rankings* serve as one source of objectively ranking counties throughout the country based on many SDOH conditions. **Figure 2.I.** displays a categorical breakdown of many SDOH elements related to Salt Lake County, including an overall score comparison of some of its neighboring counties and local urban markets. Overall, Salt Lake County compares equally to many neighboring counties but is lacking heavily in the overall equity category compared to neighboring counties, while ranking very high in the economy category. [12]

SALT LAKE COUNTY HEALTHIEST COMMUNITIES RANKING

All Scores Based on 100 Total Points Unless Noted Otherwise

OVERALL SCORE 66

Peer Group Category:	**Urban, High Performance**
Peer Group Median Score:	**61**
State Median Score:	**61**
National Median Score:	**47**

Davis County Score:	82
Morgan County Score:	90
Summit County Score:	76
Utah County Score:	76
Tooele County Score:	64
Wasatch County Score:	78

Population Health

	County	State		County	State
Overall Score:	**69**	---	Healthy Behaviors Score:	66	---
Access to Care Score:	50	---	Smoking Rate:	9.3%	9.0%
Pop. Without Health Ins:	11.4%	10.7%	Health Conditions Score:	81	---
Mental Health Score:	54	---	Health Outcomes Score:	69	---
Mental Distress in Adults:	14.1%	13.8%	Life Expectancy (years):	79.8	80.1

Community Vitality

	County	State		County	State
Overall Score:	**58**	---	Community Stability Score:	59	---

Equity

	County	State		County	State
Overall Score:	**43**	---	Educational Equity Score:	17	---
Health Equity Score:	53	---	Income Equity Score:	53	---
Social Equity Score:	71	---			

Housing

	County	State		County	State
Overall Score:	**50**	---	Housing Capacity Score:	67	---
Housing Affordability Score:	53	---	Housing Quality Score:	92	---
Hours to Pay for Housing:	42.8	42.7			

Economy

	County	State		County	State
Overall Score:	**87**	---	Income Score:	73	---
Employment Score:	87	---	Poverty Rate:	8.6%	9.1%
Opportunity Score:	84	---	Average Weekly Wage:	$1,203	$1,056
Unemployment Rate:	5.1%	4.7%	Median Household Income:	$78,927	
Business Growth Rate:	10.3%	11.3%			$78,224

Public Safety

	County	State		County	State
Overall Score:	**48**	---	Per Capita on Emer. Services:	$526	$445
Public Safety Capacity Score:	43	---			

Figure 2.I. Salt Lake County Healthiest Communities Ranking [12]

SECTION 3. DEPARTMENT OVERVIEW

3.1. Fire & EMS Coverage and Response

SFD provides fire and EMS coverage to the City with a staffed, five-station model with three of the five stations housing an ambulance and all five stations housing a fire apparatus (engine or truck company). All apparatus are equipped with medical supplies to respond to EMS incidents and, as such, various incidents may garner an engine/truck response along with an ambulance response based on the location of such units and their proximity to the actual incident, among other factors. Station locations and additional details related to the staffed units located at each station are forthcoming in this Report. **Figure 3.A.** shows a map with each fire station and a one-mile (blue shaded) and two-mile (green shaded) as-the-crow-flies buffer around each station, including the City's borders. **Figure 3.B.** shows a map of the City with SFD response districts noted for reference. Additional neighboring fire stations from bordering communities are also displayed on each map as a point of local reference, as some incidents will garner a response from a neighboring department along with SFD units, or with the neighboring department solely responding as a part of the Salt Lake Valley's regional automatic aid system. Further details regarding this system and incident volumes are forthcoming in this section of the Report.

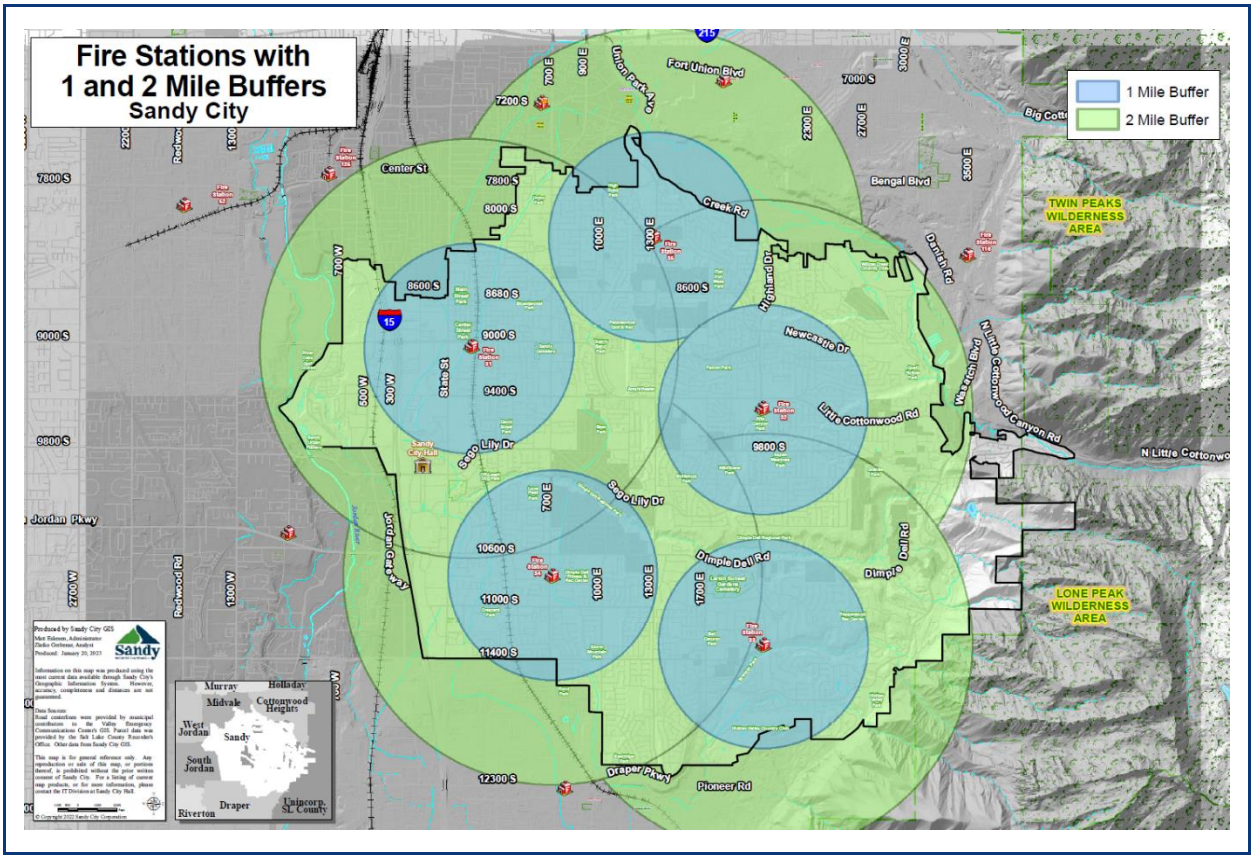


Figure 3.A. Map of Sandy with SFD Station Locations and 1-Mile/2-Mile Response Buffers

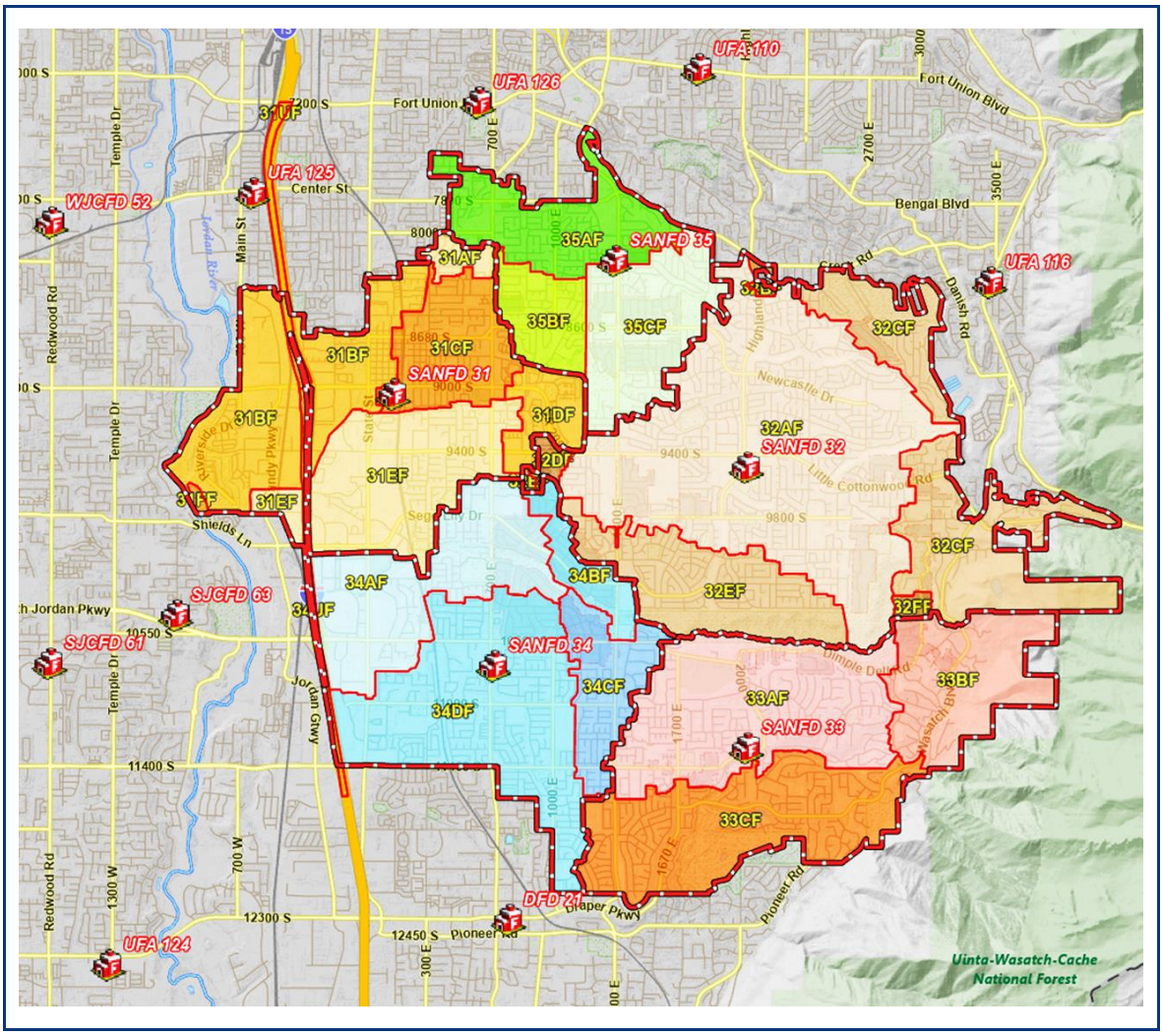


Figure 3.B. Map of Sandy with SFD Response Districts and Station Locations [6]

3.2. Administration

SFD's administrative team maintains a broad range of responsibilities for the Department's effective operation and community service. This includes strategic planning, policy development, budgeting, and financial management. Personnel management is also key, involving recruitment, training, performance evaluations, and professional development. Additionally, they develop and maintain emergency response plans, manage equipment and resources, and analyze operational data to inform continuous improvement.

3.2.1. Organizational Structure

The organizational structure and span of control in a fire department are crucial for ensuring efficient and effective operations. A clear organizational structure establishes a defined chain of command enabling clear communication, decision-making, and accountability. An appropriate span of control ensures that supervisors can effectively manage their subordinates, providing necessary guidance and maintaining necessary administrative needs. This balance prevents supervisors from becoming overwhelmed and allows for better workload management and resource allocation.

SFD's organizational structure is very light at the top end to handle the administrative tasks needed for the Department, as displayed in **Figure 3.C.**, consisting of two Battalion Chiefs, one Deputy Chief, and the Fire Chief, with an administrative assistant. This has placed a heavy workload on just a few personnel to carry out all the administrative tasks needed to keep the Department moving in the right direction. Respective recommendations from our consulting team will be addressed later in this Report.

Within the combat firefighter ranks, stations are overseen by Captains who are assigned to fire apparatus (regardless of Paramedic credentialing). Also assigned to fire apparatus are Engineers (typically regardless of Paramedic credentialing). One recently created and promotable position/rank is the Senior Paramedic role – which appears to still have confusion surrounding it within the Department. This position is relatively aligned with the Engineer position in terms of hierarchy and pay. All remaining positions are considered as Firefighters, and all positions within the combat ranks are required to be credentialed at the emergency medical technician (EMT) level or higher (e.g., advanced EMT – AEMT, paramedic. Of note, the term "combat firefighter" appears to be a regionally specific term to differentiate administrative roles from operational (shift/duty) roles. This term is not commonly used throughout the country.

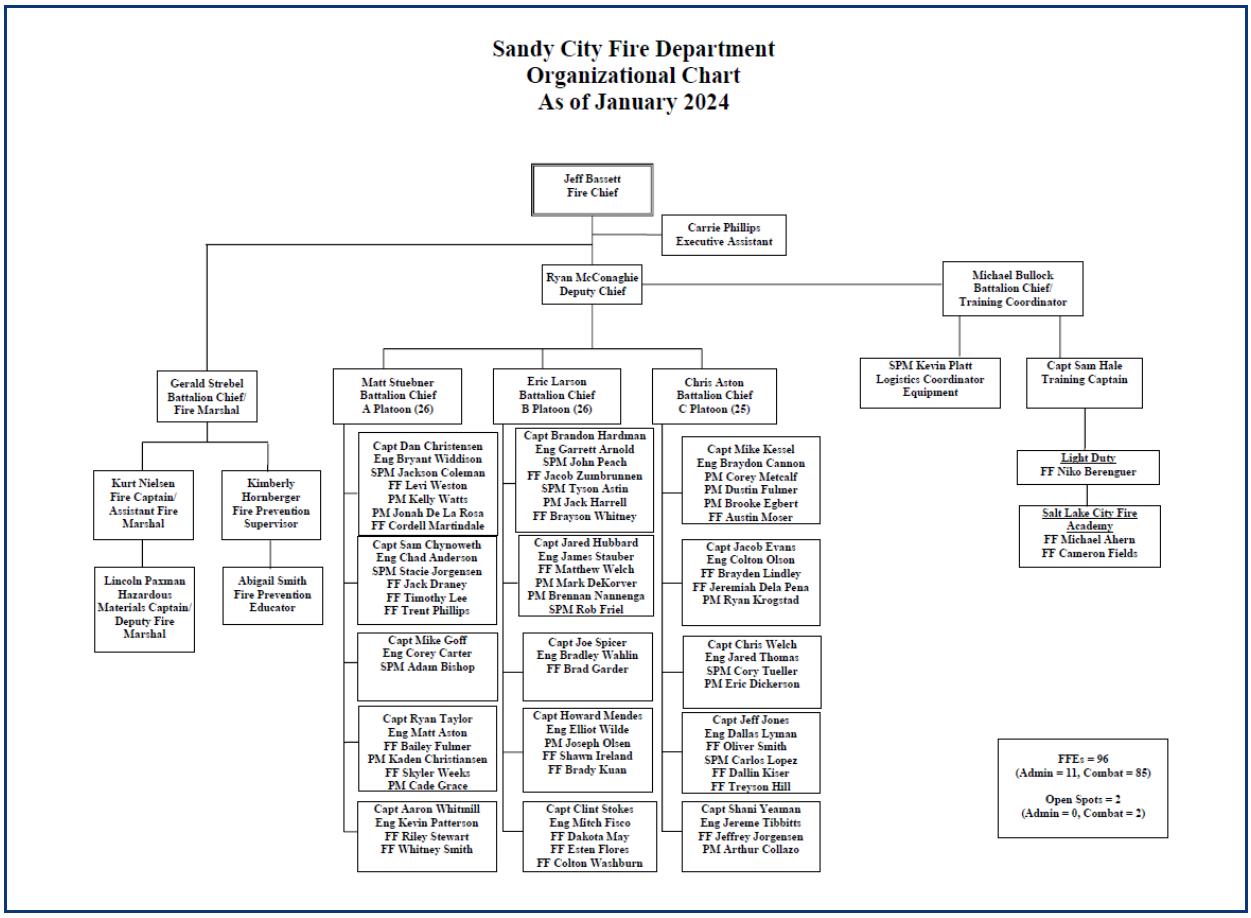


Figure 3.C. Image of SFD Organization Chart (January 2024)

3.2.2. Administrative Roles & Responsibilities

Having clear roles and responsibilities allows for strong organizational management and ensures all aspects of the Departments operations are being addressed.

The following positions make up the administrative staff for the SFD with current detailed roles and responsibilities:

Fire Chief

- **Administration:** Grant program(s), stakeholder committees, confer with elected officials
- **Finance:** Annual budget
- **Planning:** Valley Alliance, Metro Fire Chiefs, Community Wildfire Preparedness Plan (CWPP)/State Fire Forestry
- **Logistics:** Equipment purchasing oversite

- **Operations:** Risk management, emergency response
- **Personnel:** Personnel management
- **Quality:** Oversight of all operations
- **Compliance:** Contracts and agreements
- **Community Engagement:** Public inquiries, social media oversight

Executive Assistant

- **Administration:** Various duties
- **Finance:** Payroll review, overtime tracking, timesheet verification, payroll submission
- **Planning:** Scheduling, City & Department events coordination, annual banquet
- **Logistics:** Purchasing/Budget, contract management, procurement practices
- **Community Engagement:** Social media, website, photos, communications
- **Data Reporting:** Records management and required documentation reporting

Deputy Chief

- **Administration:** Outside agency meetings, Acting Fire Chief, operations oversight
- **Finance:** Budget coordination, timecard approval
- **Planning:** Strategic planning
- **Operations:** Valley Alliance, maintain software systems, emergency response, dispatch liaison
- **Personnel:** Supervise office personnel
- **Training:** Staff trainings
- **Compliance:** Department policies/procedures
- **Community Engagement:** Public inquiries, Public Information Officer (PIO)
- **Data Reporting:** Annual/management reports

Fire Marshal Battalion Chief

- **Administration:** Oversee fire prevention, Utah State Fire Marshal's office
- **Finance:** Division budget
- **Planning:** City event planning
- **Personnel:** Manage staffing for division

- **Training:** Quarterly arson training, fire code updates
- **Compliance:** Investigations, hydrant inspections, plans reviews, wildland review
- **Community Engagement:** Public inquiries
- **Data Reporting:** Inspections, hydrant testing, haz-mat inspections

Training Battalion Chief

- **Administration:** Oversee training tower operations, quarterly meetings
- **Finance:** Training, medical supplies
- **Planning:** Valley Training Alliance
- **Logistics:** Oversee logistics manager
- **Operations:** Health & Safety Officer (HSO)
- **Personnel:** Oversee new hire & promotional processes
- **Training:** Manage fire/EMS training for Department
- **Quality:** Liaison with Medical Control
- **Compliance:** Training compliance
- **Data Reporting:** Training records, fire & EMS reporting, Health Department, Adult Aging Services, Adult Protective Services

Logistics Officer:

- **Administration:** Maintain accountability of all supplies
- **Planning:** Coordinate fleet repairs and service
- **Logistics:** Ordering all medical, PPE, uniforms, equipment for Department
- **Operations:** After-hours response to large incidents
- **Training:** Maintain combat fire/EMS certifications, assist Training Battalion Chief

Combat Battalion Chief

- **Administration:** Daily staffing, coordination with Valley agencies
- **Operations:** Incident command, resource management
- **Personnel:** Supervision of combat Captains
- **Training:** On duty training of crews
- **Compliance:** Safety, policies

3.2.3. Strategic Plan

A strategic plan is crucial for a fire department as it provides a clear roadmap for achieving long-term goals and improving service delivery, ensuring the safety and well-being of the community. It guides decision-making on resource allocation, staffing, training, and equipment purchases, aligning them with the department's mission and vision. A strategic plan is essential for guiding a fire department's growth and ensuring it can effectively fulfill its mission and provide high-quality service to the community. The current five-year *Strategic Plan* for SFD outlines the vision for 2022-2027, and was put together by Department and City personnel, as well as community partners.

To ensure that time, energy, and resources are dedicated to the services most desired by the community, SFD asked external stakeholders to prioritize the services offered. This approach allows SFD to align its efforts with community needs and expectations, ensuring that the most valued services receive the necessary focus and support. By engaging stakeholders in the prioritization process, SFD can make informed decisions about resource allocation, program development, and service enhancements, ultimately leading to improved service delivery and increased community satisfaction, **Table 3.D.** illustrates the results of the community engagement process.

Final Ranking	Overall Rank	Score
Medical	1	1.8
Fire	2	2.1
Brush Fire/WUI	3	4
Inspections	4	5.5
Prevention	5	5.6
Haz-Mat	6	5.7
Technical Rescue	7	6.4
Public Education	8	6.8
SWAT Medic/RTF	9	7.2

Table 3.D. SFD Strategic Plan Community Service Priorities

SFD's *Strategic Plan* developed six strategic initiatives for their five-year plan to build a foundation for the goal setting process.

The six strategic initiatives are as follows:

- All-Hazard Service Delivery Best Practices
- Fiscal Responsibility
- Health and Safety
- Community Health and Safety Outreach
- Capital Improvements
- Employee Development and Satisfaction

The strategic goals were developed within various strategic initiatives, encompassing timelines, funding needs, and benchmarks for achieving these goals. However, the overall strategic plan lacks substantial vision or ambitious goals, which may be due to the City's reliance on "one-time" funding, which hinders the ability to fund or budget for long-term projects. Many of the goals set are routine practices and expectations rather than strategic achievements, such as ensuring judicial spending, seeking grant funding, and completing and submitting budget projections. Our consulting team believes that the next strategic plan should incorporate more visionary and ambitious goals and should be a living document that is regularly updated as goals are met or modified. Throughout the course of this Study, our team has identified several areas where significant progress has been made to the outlined goals, while others have seen no movement towards completion. This Report will reflect upon the *Strategic Plan* and how it correlates to the respective sections being discussed while focusing on the sentiment of pride the Department's workforce has as an organization (**Figure 3.E.**).

Figure 3.E. Collection of Photos Showing Station and Apparatus Workforce Pride

3.3. Operations

The Sandy Fire Department is organized into four separate divisions, each tasked with specific organizational requirements. These divisions include Training, Administration, Prevention, and Operations. The Operations division is responsible for responding to calls for medical emergencies**,** structural and wildland fires, hazardous materials incidents, technical rescue events such as rope rescue, trench rescue and confined space emergencies, and heavy extrication.

3.3.1. Dispatching Services

Sandy Fire Department, along with the Sandy Police Department, are dispatched through Salt Lake City Dispatch (SLC). All other surrounding departments in the Valley are dispatched through Valley Emergency Communications Center (VECC). More on dispatch services will be discussed later in this Report.

3.3.2. Daily Staffing

Daily budgeted staffing for each of the Department's three shifts consists of 26 combat firefighters and one Battalion Chief (27 personnel total). Each shift works an assigned 48/96 rotation, whereby employees are scheduled for 48 hours on, followed by 96 hours off. This type of shift rotation is common in Western fire departments.

Minimum staffing levels for the Department consist of 21 combat firefighters and one Battalion Chief (22 personnel total), as the "additional" five personnel are designed to account for decreasing overall unscheduled overtime via vacation/paid time off, sick time, and other scheduled/unscheduled time off needs. This is a common (and recommended) practice. While there is some relative consistency with "how" and "where" employees staff each station/apparatus when at minimum levels (with inconsistencies existing in the assignment of Paramedics and other specialty qualified crew members), there is large variance in how staffing is maintained and shifted when levels are above the minimum.

The practice of "up-staffing" any station or unit falls to the discretion of each on-duty Battalion Chief, rather than a uniform and consistent staffing matrix (outlined in **Table 3.F.**). As a result, when one "additional" crew member is available for the day, they may be assigned to any one of the Department's apparatus at the Battalion Chief's discretion. When two are available, this may equate to putting a fourth ambulance in-service, or it may equate to adding personnel to fire apparatus; again, at the Battalion Chief's discretion. This practice, and forthcoming recommendations, will be addressed later in this Report.

Unit	22 Personnel (Minimum Staffing	23 Personnel	24 Personnel	25 Personnel	26 Personnel	27 Personnel (Budgeted Staffing)
BC31	1	1	1	1	1	1
T31	3	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)
MA31	2	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)
ME32	3	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)
MA32	2	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)
ME33	3	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)
ME34	3	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)
MA34	2	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)
ME35	3	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)
MA35	-----	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)	(Unclarified)

Table 3.F. SFD Unit Staffing Matrix

Not all combat firefighters, moreover, maintain a regular station assignment. Some may be frequently reassigned to another station for any given time period because of the Department's practice of moving personnel to maintain specialty station staffing, or Paramedic-level staffing on an ambulance (instead of staffing with two EMTs). This is internally referred to as "roving." Forthcoming recommendations by our consulting team regarding such practices will be noted later in this Report.

3.3.3. Fire Response

Fire response encompasses the actions and procedures taken by the Department to address and manage fire incidents. These include structure fires in residential, commercial, or industrial buildings, wildfires, vehicle fires, chemical and hazardous material fires, electrical fires, and kitchen fires. Fire response includes the evacuation and rescue of individuals, fire suppression, and overhaul operations rendering the scene safe. Post-incident procedures involve fire investigation, documentation, and conducting reviews to enhance future responses. The primary objectives of fire response are to save lives, protect property, and effectively control and extinguish the fire.

SFD utilizes an automatic aid approach to fire and EMS incidents. Auto-aid is a formal agreement between neighboring fire departments and EMS agencies to automatically respond to emergencies across jurisdictional boundaries. This system ensures that the closest and most appropriate units are dispatched to an emergency, reducing response times, and enhancing outcomes. Auto-aid facilitates resource sharing, allowing agencies to pool specialized equipment and personnel to routine and complex incidents.

National Fire Protection Association (NFPA) 1710 addresses the structure and operation of organizations providing fire suppression services. This standard outlines essential requirements for fire department service deployment to ensure the effective, efficient, and safe delivery of protective services. **Figure 3.G.** shows key requirements in NFPA 1710 standard based upon occupancy and staffing levels. [13]

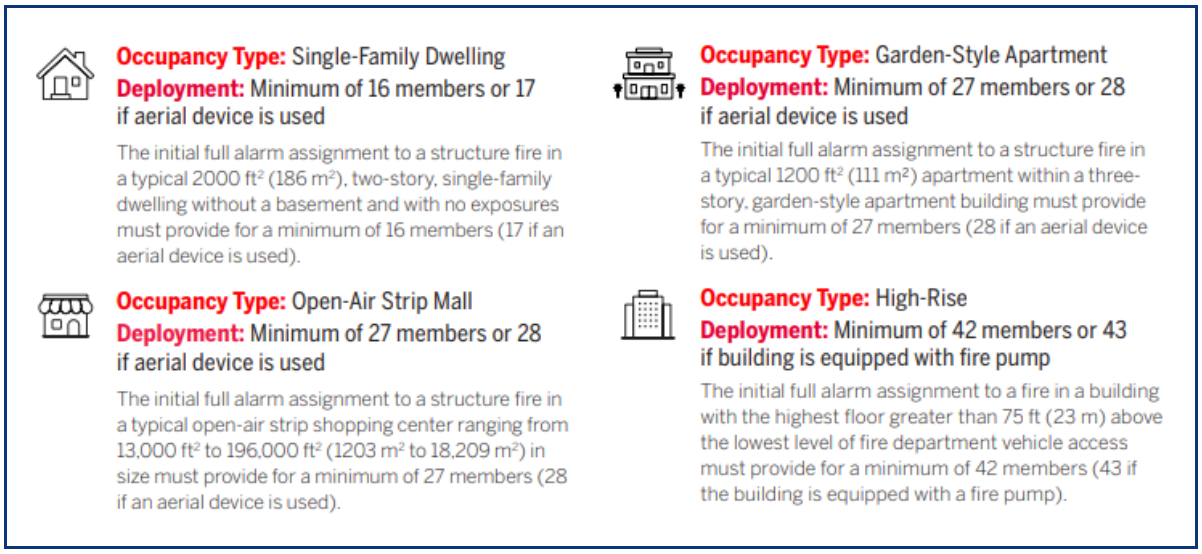


Figure 3.G. Image of NFPA 1710 Key Requirements [13]

SFD and surrounding agencies have a standard deployment matrix for the following first-alarm incidents based on 3-person fire apparatus staffing levels (of note, if 4-person staffing were universally implemented, fewer apparatus may be necessary to respond to each incident):

Residential Structure Fire

- 3 Engines, 2 Trucks, 2 Battalion Chiefs, 1 Ambulance (19 personnel)

Commercial Structure Fire

- 3 Engines (4 for high-rise), 2 Trucks, 2 Battalion Chiefs, 1 Ambulance (19-22 personnel)

Wildland Fire Endangering Structures

- Structure assignment with the addition of 2 Type-6 wildland Engines (19-26 personnel)

With the recently improved staffing of SFD's apparatus and the collaborative approach optimizing emergency coverage, SFD has obtained an Insurance Services Office (ISO) classification of 2. ISO collects and assesses information from communities across the United States regarding their structure fire suppression capabilities. In this ratings system, scores range from 1 to 10, with 1 representing the best possible score and 10 representing the worst. A score of 1 indicates exceptional performance or capabilities, while a score of 10 reflects poor performance or capabilities. **Table 3.H.** outlines the Department's most recent Public Protection Classification (PPC) credits. Overall, this rating highlights notable areas of improvement within the Department's ladder services, deployment analysis and company personnel (staffing) levels.

Fire Suppression Rating Schedule (FSRS) Item	SFD Earned Credit	Total Credit Available
Emergency Reporting	3.00	3.00
Telecommunications	4.00	4.00
Dispatch Circuits	2.91	3.00
Credit for Emergency Communications (Total)	9.91	10.00
Engine Companies	5.98	6.00
Reserve Pumpers	0.44	0.50
Pumper Capacity	3.00	3.00
Ladder Service	2.14	4.00
Reserve Ladder and Service Trucks	0.47	0.50
Deployment Analysis	6.88	10.00
Company Personnel	8.00	15.00
Training	7.81	9.00
Operational Considerations	2.00	2.00
Credit for Fire Department (Total)	36.72	50.00
Supply System	30.00	30.00
Hydrants	2.72	3.00
Inspection and Flow Testing	5.95	7.00
Credit for Water Supply (Total)	38.67	40.00
Divergence (Reduction)	-4.65	-----
Credit for Community Risk Reduction	5.15	5.50
TOTAL CREDIT	**85.80**	**105.50**

Table 3.H. SFD Public Protection Classification Credits

3.3.4. EMS Response

Emergency medical services (EMS) is a pre-hospital medical care system that provides triage, treatment, and transport (if required) to those calling 9-1-1 for emergency medical care. SFD utilizes a fire-based approach to providing medical care to the citizens of Sandy. This system utilizes cross-trained fire personnel responding on fire apparatus and ambulances to provide care. An alternative approach utilized throughout the country is to

have only medically trained personnel on the ambulances who are not trained in firefighting or other all-hazard incidents.

SFD deploys three full-time ambulances with a fourth possible if staffing allows. This fourth ambulance is not put into service very often and no constant staffing policy is in place for guidance on prioritization of movement of personnel. EMS calls utilize the same auto-aid agreement with the Valley agencies on high-acuity calls dispatching the closest and most appropriate unit regardless of agency or jurisdiction. High-acuity calls refer to incidents that involve severe or life-threatening conditions requiring immediate and advanced medical intervention. Lower-acuity EMS incidents will get the closest unit within the City jurisdiction and not rely upon the auto-aid agreement.

3.3.5. Specialty Response

The Sandy Fire Department is equipped with a specialized operation response force dedicated to addressing specialized incidents. These incidents are generally high-risk but low frequency events requiring specialized equipment and training for mitigation. SFD currently staffs four of the five stations as specialty response stations. These specialties include hazardous materials response, motor vehicle extrication, rope rescues, confined space, and wildland/urban-interface fires. Staffing is prioritized to those with the required training to work at the designated stations, however, there is not a constant staffing policy that mandates a minimum level of trained personnel at these stations. SFD may have only one person trained in a specialty working on any given day(s).

3.3.5.1. Hazardous Materials Spills/Leaks

Hazardous materials response is a technical discipline in responding to, detecting, containing, and stabilizing an incident that contains hazardous substances. Incidents may involve hazardous substances in solid, liquid, or gas form that may pose a risk to human life or the environment. Federal Emergency Management Agency (FEMA), along with the U.S. Department of Homeland Security, classifies haz-mat teams into three separate categories based upon their capabilities.

Type-I teams are designated to mitigate large-scale, complex incidents for extended durations for known and unknown substances. Type-II teams are also built to sustain large-scale incidents but do not have the advanced equipment that Type-I teams utilize. Type-III teams are built to assess and mitigate smaller-scale incidents involving only known substances and have basic metering devices and equipment. Sandy Fire Department is classified as a Type-III haz-mat response team based upon limited personnel, equipment, and response capabilities. SFD may fall below Type-III in certain areas to fall into an undefined Type-IV category.

All SFD firefighting personnel undergo training to meet at least the operations level requirement in hazardous material emergency response. The Department's haz-mat specialty personnel run out of Station 35 and are trained in technician-level mitigation for hazardous material incidents.

3.3.5.2. Motor Vehicle Extrication

Vehicle extrication refers to the procedure of freeing individuals involved in motor vehicle accidents from their vehicles, particularly when they are unable to exit due to injuries or physical entrapment. Vehicle extrication requires a coordinated effort involving emergency responders who utilize specialized tools and techniques to safely extricate the patients while minimizing further injury.

There are three basic levels of vehicle extrication basic, advanced, and heavy extrication. All SFD firefighters are trained to the basic and advanced levels of extrication and can perform techniques in routine vehicle collisions. Basic extrication involves standard procedures conducted at the scene of a car, light duty trucks, or SUV collisions to free individuals trapped within the vehicle. Advanced extrication techniques are specialized procedures used to extricate individuals trapped within the vehicle in complex scenarios. These techniques go beyond basic extrication and require additional training and sometimes advanced equipment. Heavy extrication focuses on specialized extrication techniques required for heavy vehicles, beyond the basic procedures used for cars and light trucks. Heavy vehicles include buses, semi-tractor trailers, dump trucks, concrete mixers, and similar large vehicles.

SFD has personnel staffed at Station 34 who specialize in heavy extrication techniques. However, the heavy rescue vehicle that held all the heavy extrication equipment is out of service and all the equipment has been distributed amongst several different apparatus. This practice does not allow for adequate training or proficiency in the deployment of this equipment.

3.3.5.3. Rope/High & Low Angle Rescue

Rope rescue is the foundation discipline of all technical rescue operations as it may be used in all other specialized operations. Rope rescue is used to gain access, assist, and extricate victims in various settings such as wilderness, confined space, low-angled slopes, extreme angles, as well as completely vertical in free-hanging position. These operations pose great risk to responders and specialized equipment and training are required to engage in these rescue operations. The rope rescue, and all technical rescue specialists are staffed at SFD Station 32.

3.3.5.4. Confined Space Rescue

Confined space rescue is a specialized aspect of technical rescue operations, focusing on the extrication of individuals trapped within confined spaces or areas accessible solely through such spaces. Confined spaces encompass environments like underground vaults, storage silos, tanks, or sewers, presenting unique challenges for rescue teams. Rescuing individuals from confined spaces demands addressing various hazards, such as air depletion, toxic environments, extreme temperatures, and the potential threat of engulfment by substances present within the confined area.

3.3.5.5. Wildland Urban Interface

The wildland urban interface (WUI) represents the interface between unoccupied natural landscapes (i.e., forest, grasslands, other wilderness) and residential or commercial development. It delineates the boundary, line, or area where structures and other infrastructure meet undeveloped wildland or vegetative fuels. This proximity poses unique challenges for wildfire management and mitigation, as it increases the risk of wildfire ignition and fire spreading into populated areas. Station 33 serves as the Department's brush fire/WUI specialty response station.

WUI fires differ from brush fires in that WUI fires occur in areas where urban or suburban development meets or intermingles with wildland vegetation, whereas brush fires are typically confined to natural areas with minimal human development. WUI fires pose unique challenges due to the presence of structures, infrastructure, and human populations, requiring a more complex response strategy and apparatus.

WUI risk nationally has increased over the years due to several factors:

- Increased desire to live in a more secluded area
- Homes built with flammable materials such as wooden patios, sidings, and roofing materials
- Restricted access for fire apparatus
- Reduced water supply in remote areas
- Inadequate or no hazard planning or evacuation systems available
- Misperception that rural fire protection is equal to urban protection

Sandy has a significant WUI concern with over 2,900 homes in high-risk WUI areas, particularly at the eastern border as Sandy shares a boundary with the Wasatch Range of the Uinta-Wasatch-Cache National Forest. Dimple Dell Regional Park extends its 630 acres from the Wasatch Range almost to the center of the City, which extends the WUI concern and possible fire spread to over 3,600 acres inside City limits (**Figure 3.I.** and **Figure 3.J.**).

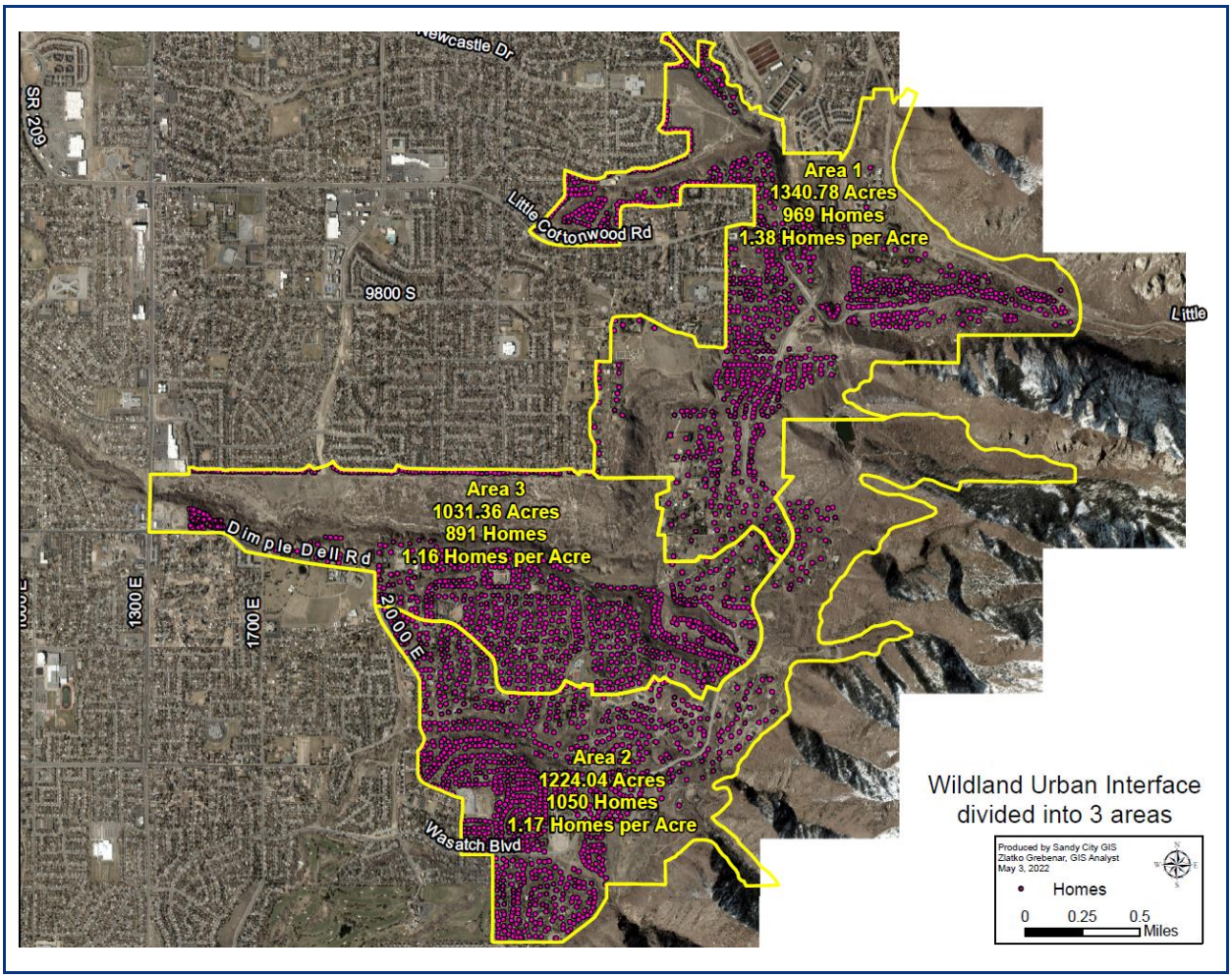


Figure 3.I. Image of Wildland Urban Interface Areas within Sandy

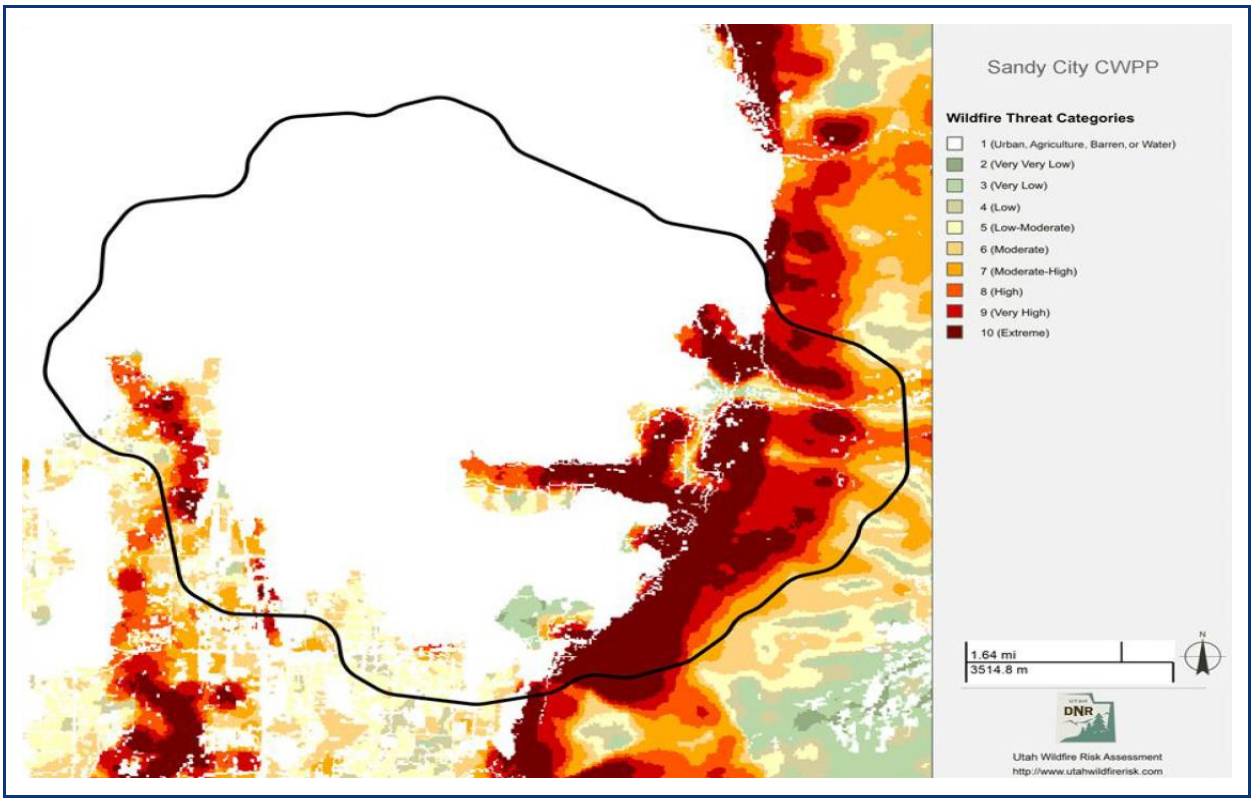


Figure 3.J. Image of Wildfire Risk Map for Sandy

SFD participates in the State of Utah's Community Wildfire Preparedness Plan, which is a state-sponsored policy that shifts strategies from reactive fire suppression to proactive risk reduction. This participation, and continued engagement, supports funding and resources from the state level in the event of a significant wildfire incident in the City that expands beyond local resource capabilities. This participation is an ongoing process that ensures the City and Department are engaged in risk reduction and educational activities, along with continued evaluation of the risk within the City and documenting prevention, preparedness, and mitigation activities performed at the local level. As Sandy approaches the need to renew their agreement with the State's program, our consulting team recommends continuing this practice and ensuring that all proactive measures are implemented each year with proper documentation.

Utah summers pose increased risk of brush fire/WUI incidents and Sandy has the right topography, weather, and fuels to promote a significant incident. When the National Weather Service issues red flag warnings, heightened awareness, and proactive actions should be taken. An SFD brush fire/WUI SOG should help guide actions to be taken when conditions warrant. Once weather forecasts and fire conditions indicate a potential for a significant wildfire event, Sandy may increase their readiness to conduct response operations.

These efforts may include:

- Enhanced Sandy fire staffing, particularly wildland apparatus with qualified personnel
- Adjusting work hours
- Readying equipment and supplies
- Reducing non-critical operations
- Conducting protective operations

The City has a significant threat with weather, topography, fuels, and urban interface that a wildland coordinator and seasonal team could be strongly considered. The primary responsibility of the team would be for mitigation of the brush fire/WUI threats within the City. Second, they would respond to requests from other agencies through the auto-aid agreement within the Salt Lake Valley as well as State agreements and the Utah Division of Forestry. An additional possibility for deploying a state resource would be the development of a Rapid Extrication Module Support (REMS) team for wildland deployment.

A REMS team is a specialized unit designed to provide rapid medical intervention and evacuation of injured personnel in wildland fire operations. The use of technical rescue personnel with EMS training provides a pre-staged unit on a wildland assignment to provide rapid response, medical support, and technical evacuation to injured firefighters. SFD has the training and equipment to outfit a smaller vehicle to deploy during the wildland season to support these functions as well as provide some reimbursement revenue back to the City.

SECTION 4. FACILITIES & FLEET

4.1. Facilities

This section of the Report includes station profiles. For each station, the following is outlined: operational use, staffing, facility and physical structure, apparatus bays, storage, occupancy, amenities, access, and security features. Our consulting team's observations are included with each station profile. All elements, relevant photos captured during the on-site visit, comments related to the overall status and needs of the station, and provided ratings are based on our team's professional insights and applicable national standards.

With respect to the fact that Station 31 is slated for replacement, much of our team's focus was turned toward Stations 32, 33, 34, and 35. The Department's off-site training facility, located on a public works campus, was also generally assessed and respective comments are provided.

Outlined below are common findings or observations noted by our consulting team reflecting all stations/facilities as a whole:

- Verify that stations meet OSHA requirements for eyewash stations, safety data sheet (SDS) presence, and chemical labeling/storage.
- Retrofitted and separated offices to create a 6th dorm room in Stations 32 and 35 should not be considered as long-term solutions for sleeping arrangements.
- Gear storage in all stations is non-compliant with NFPA 1971 and should be addressed with any future construction or remodeling to protect valuable PPE.
- All stations appear to be at physical space capacity within their apparatus bays, limiting vehicle storage needs and unit movement opportunities.
- Verify all stations have an OSHA-/NFPA-approved flammable storage cabinet for safe storage of fuels, aerosols, and other combustibles.

4.1.1. Station 31/Headquarters Profile

STATION		LOCATION
31		9010 S. 150 East
		Area Designator
		Downtown Sandy

KEY:	A – Adequate	S – Satisfactory with Minor Modifications	N – Needs Improvement	I – Inadequate	X – Does Not Exist	N/A

OPERATIONAL USE & STAFFING		OVERALL RATING:	I
Primary Use:	■ Fire Apparatus Station ■ Ambulance Station ■ Command Staff Station ■ Headquarters ■ Suppl. Admin. ■ Training Facility ■ Ops/Logistics		
Primary Apparatus:	T31, MA31, BC31	Min. Staffed Personnel:	6
Secondary Apparatus:	None		

Comments & Notations

- Station 31 serves as the main fire station for the City that includes Administration staff
- This station is already slated to be replaced just blocks away between I-15 and America First Field

FACILITY & PHYSICAL STRUCTURE		OVERALL RATING:	I
Ownership:	Sandy City	Square Footage:	25,100 sq ft
Shared Space:	**N/A**	Construction Type:	Varied
Year of Construction:	1985	Env. Hazards Prevention:	**N/A**
Year Occupied:	1985	Visual Integrity:	**Inadequate**

Comments & Notations

- The inspection proved that the building needs replacement with leaks, cracks, and structural deterioration
- Structural damage from 2020 earthquake reported

APPARATUS BAY & STORAGE		OVERALL RATING:	I
Apparatus Bay Space:	Inadequate	Decon/Cleaning Access:	Inadequate
Climate Control:	Adequate	Maintenance/Repair Area:	Inadequate
Exhaust System:	Adequate	Gear Storage Space:	Inadequate
CO/Alarm System:	N/A	Equipment Storage Space:	Inadequate
Water Drainage:	Inadequate	Bulk Storage Space:	Inadequate

Comments & Notations

- Water/snow melt drains directly into the bay space creating slippery walking surfaces
- All storage and equipment spaces are outgrown and dilapidated
- The storage room needs to separate chemicals from items such as webbing, hoses, ropes, etc.
- A flammable storage locker is recommended
- The turnout storage is not NFPA 1971 compliant

OCCUPANCY & AMENITIES		OVERALL RATING:	N
Dayroom Amenities:	Needs Improvement	Restrooms:	Needs Improvement
Kitchen Amenities:	Needs Improvement	Shower Access:	Needs Improvement
Dining Amenities:	Needs Improvement	Crew Lockers/Storage:	Needs Improvement
Office Space:	Not Evaluated	Sleeping/Dorm Rooms:	Needs Improvement
Meeting/Training Space:	Not Evaluated	Laundry Access:	Not Evaluated
Fitness/Exercise Access:	Not Evaluated		

Comments & Notations

- Several areas were not evaluated due to the fact this station is already slated to be replaced
- Common spaces were dilapidated and not up to industry standards

ACCESS & SECURITY		OVERALL RATING:	N
Apron/Driveway:	Adequate	Generator/Back-up Power:	Adequate
Thoroughfare Access:	Adequate	Camera Monitoring:	N/A
Station Markings:	Adequate	Key/Code Door Access:	Adequate
Roadway Warning Lights:	N/A	Gated Parking Area:	Does Not Exist
Visual/Curb Appeal:	Needs Improvement	Window Security:	Does Not Exist
Crew/Staff Parking:	Adequate	Remote Alarm Monitoring:	Does Not Exist
Public Access & Parking:	Needs Improvement	Eyewash/Safety Features:	Inadequate

Comments & Notations

- Key card access noted
- No handicap access to upper level
- The facility looks old and unmaintained from the exterior
- It was unclear as to where public vs employee parking was and where to gain access to the facility
- There is no emergency decontamination (eye wash/shower) noted upon inspection, per OSHA 1910.151(c)

ADDITIONAL COMMENTS & IMAGES

- Images (gathered from the City's website) as seen below show structural degradation to the station






CONSULTANT'S OVERALL SUMMARY

The Department and City have made a wise choice to discontinue use of this facility and build a state-of-the-art facility ahead of the future Cairns District project. This new station will serve the firefighters, administration personnel, and the community for years to come. This same forward thinking will be needed to continue to develop City buildings for sustained service to the citizens and visitors of Sandy.

4.1.2. Station 32 Profile

STATION		LOCATION
32		9475 South 2000 East
		Area Designator
		Alta Canyon

KEY:	A – Adequate	S – Satisfactory with Minor Modifications	N – Needs Improvement	I – Inadequate	X – Does Not Exist	N/A

OPERATIONAL USE & STAFFING		OVERALL RATING:	A
Primary Use:	■ Fire Apparatus Station ■ Ambulance Station ■ Command Staff Station ■ Headquarters ■ Suppl. Admin. ■ Training Facility ■ Ops/Logistics		
Primary Apparatus:	ME32, MA32	Min. Staffed Personnel:	5
Secondary Apparatus:	Wildland632, ATV (Side-by-side) equipment shuttle		

Comments & Notations

- Station 32 houses an Engine Company, Ambulance, Type-6 wildland apparatus, and a wilderness ATV
- Station 32 serves as the City's rope rescue response specialists

FACILITY & PHYSICAL STRUCTURE		OVERALL RATING:	A
Ownership:	Sandy City	Square Footage:	6,800 sq ft
Shared Space:	Community Room	Construction Type:	Brick
Year of Construction:	1985 (re-built in 2007)	Env. Hazards Prevention:	**N/A**
Year Occupied:	1985	Visual Integrity:	**Adequate**

Comments & Notations

- Overall, the building is in good shape and meets the needs of the City
- Planning should begin for an interior remodel to accommodate the current and future growth of personnel

APPARATUS BAY & STORAGE		OVERALL RATING:	A
Apparatus Bay Space:	Adequate	Decon/Cleaning Access:	Needs Improvement
Climate Control:	Adequate	Maintenance/Repair Area:	Adequate
Exhaust System:	Adequate	Gear Storage Space:	Needs Improvement
CO/Alarm System:	Does Not Exist	Equipment Storage Space:	Adequate
Water Drainage:	Adequate	Bulk Storage Space:	Adequate

Comments & Notations

- The storage room needs to separate chemicals from items such as webbing, hoses, ropes, etc.
- A flammable storage locker is recommended per OSHA and NFPA 30
- Outside storage shed was not evaluated
- The turnout storage is not NFPA 1971 compliant and should be addressed in a remodel

OCCUPANCY & AMENITIES		OVERALL RATING:	A
Dayroom Amenities:	Adequate	Restrooms:	Adequate
Kitchen Amenities:	Adequate	Shower Access:	Adequate
Dining Amenities:	Adequate	Crew Lockers/Storage:	Adequate
Office Space:	Adequate	Sleeping/Dorm Rooms:	Needs Improvement
Meeting/Training Space:	Adequate	Laundry Access:	Adequate
Fitness/Exercise Access:	Adequate		

Comments & Notations

- Station 32 has the only community room available for use of all FD facilities until new station 31 is built
- The addition of a sleeping quarters in the front lobby should not be considered a long-term solution
- Additional expansion needed for growth for staffing, front bunk not adequate for long-term plan
- Wi-Fi is too slow for operations needed for training and reports completion

ACCESS & SECURITY		OVERALL RATING:	A
Apron/Driveway:	Adequate	Generator/Back-up Power:	Adequate
Thoroughfare Access:	Adequate	Camera Monitoring:	Does Not Exist
Station Markings:	Adequate	Key/Code Door Access:	Adequate
Roadway Warning Lights:	Does Not Exist	Gated Parking Area:	Does Not Exist
Visual/Curb Appeal:	Adequate	Window Security:	Does Not Exist
Crew/Staff Parking:	Adequate	Remote Alarm Monitoring:	Does Not Exist
Public Access & Parking:	Adequate	Eyewash/Safety Features:	Inadequate

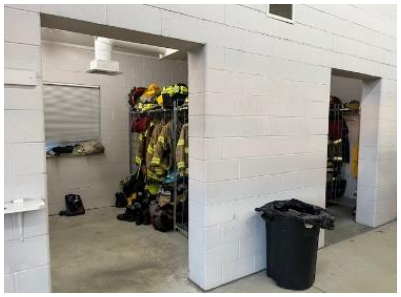
Comments & Notations

- There is no emergency decontamination (eye wash/shower) noted upon inspection, per OSHA 1910.151(c)
- Key card access noted

ADDITIONAL COMMENTS & IMAGES

- Photos below were gathered by our consulting team during on-site visit






CONSULTANT'S OVERALL SUMMARY

Station 32 serves the east side of the City and is situated at the corner of S 2000 E and E 9510 S. The station exits onto a major roadway with four lanes plus a turn lane starting in front of the apparatus exit. This poses risks and difficulties when exiting during peak traffic hours due to the lack of traffic signaling devices to slow or stop traffic, which may slightly affect response times.

The station has good curb appeal, and the landscaping is well maintained. Rebuilt in 2007, it is within its expected lifespan and remains structurally sound. However, the Department has outgrown the building, leading to staffing limitations and the conversion of the front entry office into additional sleeping quarters. While the alteration is of good quality, it is not a sustainable long-term solution, as it isolates an individual in the front entry from the rest of the crew. Future challenges include configuring two additional bunk spaces, potentially in the current weight room, and finding a new location for fitness equipment. The front community room could serve as a fitness room once the new Station 31 is built, which will include space for training and community activities. Additionally, the turnout storage is not NFPA 1971 compliant and should be addressed in a remodel, along with ensuring emergency decontamination compliance, such as providing an appropriate eye wash and shower station.

4.1.3. Station 33 Profile

STATION		LOCATION
33		2015 East 11270 South
		Area Designator
		Bell Canyon

KEY:	A – Adequate	S – Satisfactory with Minor Modifications	N – Needs Improvement	I – Inadequate	X – Does Not Exist	N/A

OPERATIONAL USE & STAFFING		OVERALL RATING:	N
Primary Use:	■ Fire Apparatus Station ■ Ambulance Station ■ Command Staff Station ■ Headquarters ■ Suppl. Admin. ■ Training Facility ■ Ops/Logistics		
Primary Apparatus:	ME33	Min. Staffed Personnel:	3
Secondary Apparatus:	Wildland633, ATV (Gator) Rescue Capable		

Comments & Notations

- Old Heavy Rescue (HR33) is currently out-of-service at Station 33
- Station 33 serves as the City's wildland response specialists

FACILITY & PHYSICAL STRUCTURE		OVERALL RATING:	N
Ownership:	Sandy City	Square Footage:	6,900 sq ft
Shared Space:	N/A	Construction Type:	Inadequate
Year of Construction:	1978	Env. Hazards Prevention:	Needs Improvement
Year Occupied:	Unknown	Visual Integrity:	Adequate

Comments & Notations

- Tilt slab construction without roof fasteners reported
- Many alterations noted to the building over time
- A large pine tree up against the station and overhanging the roofline was noted; defensible space should match the community outreach messaging of maintaining appropriate fire fuel clearance around structures

APPARATUS BAY & STORAGE		OVERALL RATING:	N
Apparatus Bay Space:	Needs Improvement	Decon/Cleaning Access:	Needs Improvement
Climate Control:	Adequate	Maintenance/Repair Area:	Needs Improvement
Exhaust System:	Adequate	Gear Storage Space:	Inadequate
CO/Alarm System:	Does Not Exist	Equipment Storage Space:	Needs Improvement
Water Drainage:	Adequate	Bulk Storage Space:	N/A

Comments & Notations

- Air cascade system non-compliant due to testing, should not be used
- The turnout storage is not NFPA 1971 compliant and should be addressed with future re-build
- Bay space is crowded with equipment and apparatus

OCCUPANCY & AMENITIES		OVERALL RATING:	N
Dayroom Amenities:	Needs Improvement	Restrooms:	Adequate
Kitchen Amenities:	Needs Improvement	Shower Access:	Adequate
Dining Amenities:	Adequate	Crew Lockers/Storage:	Needs Improvement
Office Space:	Adequate	Sleeping/Dorm Rooms:	Needs Improvement
Meeting/Training Space:	N/A	Laundry Access:	Adequate
Fitness/Exercise Access:	Adequate		

Comments & Notations

- There is no room for growth with staff or equipment
- Sleeping dorms and crew storage areas are very dated
- Poor Wi-Fi, not acceptable for training or data entry

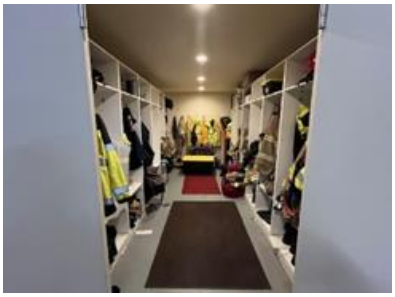
ACCESS & SECURITY		OVERALL RATING:	A
Apron/Driveway:	Adequate	Generator/Back-up Power:	Adequate
Thoroughfare Access:	Adequate	Camera Monitoring:	Does Not Exist
Station Markings:	Adequate	Key/Code Door Access:	Adequate
Roadway Warning Lights:	Does Not Exist	Gated Parking Area:	Does Not Exist
Visual/Curb Appeal:	Adequate	Window Security:	Does Not Exist
Crew/Staff Parking:	Adequate	Remote Alarm Monitoring:	Does Not Exist
Public Access & Parking:	Adequate	Eyewash/Safety Features:	Inadequate

Comments & Notations

- There is no emergency decontamination (eye wash/shower) noted upon inspection, per OSHA 1910.151(c)
- Key card access noted

ADDITIONAL COMMENTS & IMAGES

- Photos below were gathered by our consulting team during on-site visit.






CONSULTANT'S OVERALL SUMMARY

Station 33 is located on the southeast side of the City in a residential neighborhood. While there are no significant travel restrictions, relocating the station could improve response times and reduce reliance on neighboring fire departments. Station 33 has the lowest call volume of the five stations but serves one of Sandy's largest hazards, Dimple Dell Regional Park and the foothills of the Wasatch Mountain Range. This area is at significant risk for urban interface fires, with the largest residential structures within city limits.

The building is dated and poses several operational challenges, with no potential for growth. Key limitations include makeshift bunk rooms, inefficient use of large spaces in the kitchen and fitness room, and issues related to construction and location. Immediate concerns include turnout storage that does not meet NFPA 1971 standards, old tilt slab construction without reinforced roof/wall fasteners, limited accessibility to the response area, and non-compliance with OSHA requirements for emergency eye wash stations.

4.1.4. Station 34 Profile

STATION		LOCATION
34		10765 South 700 East
		Area Designator
		Crescent

KEY:	A – Adequate	S – Satisfactory with Minor Modifications	N – Needs Improvement	I – Inadequate	X – Does Not Exist	N/A

OPERATIONAL USE & STAFFING		OVERALL RATING:	A
Primary Use:	■ Fire Apparatus Station ■ Ambulance Station ■ Command Staff Station ■ Headquarters ■ Suppl. Admin. ■ Training Facility ■ Ops/Logistics		
Primary Apparatus:	ME34, MA34	Min. Staffed Personnel:	5
Secondary Apparatus:	Wildland634		

Comments & Notations

- Station 34 serves as the City's extrication response specialists

FACILITY & PHYSICAL STRUCTURE		OVERALL RATING:	A
Ownership:	Sandy City	Square Footage:	4,955 sq ft
Shared Space:	N/A	Construction Type:	Masonry Block
Year of Construction:	1993	Env. Hazards Prevention:	N/A
Year Occupied:	1993	Visual Integrity:	Adequate

Comments & Notations

- Built on a small footprint limits the possibilities for this station
- Poor design from the beginning and not conducive for crew or apparatus

APPARATUS BAY & STORAGE		OVERALL RATING:	A
Apparatus Bay Space:	Adequate	Decon/Cleaning Access:	Adequate
Climate Control:	Adequate	Maintenance/Repair Area:	Adequate
Exhaust System:	Adequate	Gear Storage Space:	Needs Improvement
CO/Alarm System:	Does Not Exist	Equipment Storage Space:	Adequate
Water Drainage:	Inadequate	Bulk Storage Space:	Adequate

Comments & Notations

- Limited decontamination space in utility room
- The turnout storage is not NFPA 1971 compliant and should be addressed with future re-build
- Water drainage issues behind the station, at walkway, may cause foundation issues

OCCUPANCY & AMENITIES		OVERALL RATING:	N
Dayroom Amenities:	Adequate	Restrooms:	Needs Improvement
Kitchen Amenities:	Needs Improvement	Shower Access:	Adequate
Dining Amenities:	Needs Improvement	Crew Lockers/Storage:	Adequate
Office Space:	Adequate	Sleeping/Dorm Rooms:	Needs Improvement
Meeting/Training Space:	N/A	Laundry Access:	Adequate
Fitness/Exercise Access:	Adequate		

Comments & Notations

- Water leaks from the faucet in bathroom, constant stream, not dripping
- Very small kitchen/day room for living, cooking, training, and dining in one location
- All bunk rooms face the busy roadway, road noise is a factor in trying to obtain quality rest
- Wi-Fi signal not sufficient for training or report writing

ACCESS & SECURITY		OVERALL RATING:	A
Apron/Driveway:	Adequate	Generator/Back-up Power:	Adequate
Thoroughfare Access:	Adequate	Camera Monitoring:	Does Not Exist
Station Markings:	Adequate	Key/Code Door Access:	Adequate
Roadway Warning Lights:	Does Not Exist	Gated Parking Area:	Does Not Exist
Visual/Curb Appeal:	Adequate	Window Security:	Does Not Exist
Crew/Staff Parking:	Adequate	Remote Alarm Monitoring:	Does Not Exist
Public Access & Parking:	Needs Improvement	Eyewash/Safety Features:	Needs Improvement

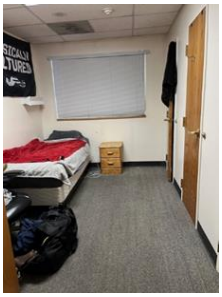
Comments & Notations

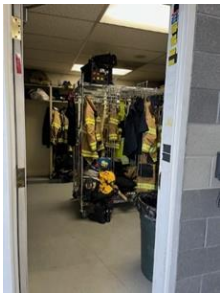
- Single handicap parking space located in front of apparatus exit; markings are faded and there is no vertical signage
- Sharp turns in/out of apparatus bay restricts the type of apparatus that could be housed in this station
- Key card access noted
- Emergency eye wash station was located behind a door and does not meet OSHA 1910.151(c)

ADDITIONAL COMMENTS & IMAGES

- Photos below were gathered by our consulting team during on-site visit





CONSULTANT'S OVERALL SUMMARY

Station 34 serves the southwest section of the City. The station is located on a very busy multi-lane road with no traffic signals to assist with egress during busy times, which may delay response times to some degree. There is only one handicap parking space with faded markings near the front entrance along the egress of the apparatus, and all other visitors must either walk around to the station or access it through the back door, directly into the day room/kitchen.

The station is of solid construction and currently meets operational needs but is limited in size, sleeping space, training areas, and apparatus availability. Emergency decontamination is limited with a non-compliant add-on eye wash station behind a door to the apparatus bay. Turnout storage is adequate but does not meet NFPA 1971 requirements and it was noted that this door, as well as others, was propped open to the apparatus bay. This practice needs to be discontinued to help reduce contamination of turnouts, EMS supplies, and equipment storage areas. The sleeping quarters are nearing the end of their life, showing wear and tear, as well as a ceiling leak in the captain's bunkroom, marked by a stain and drip marks down the wall. Leaking faucets and dated bathrooms need to be addressed. The kitchen, built to a residential scale, is worn down from 24/7 use by five personnel; a remodel with commercial-grade appliances, cabinetry, and counters is recommended for sustainability. A future station rebuild, along with possible relocation, should be planned after Station 33 is replaced.

4.1.5. Station 35 Profile

STATION		LOCATION
35		8186 South 1300 East
		Area Designator
		High Pointe

KEY:	A – Adequate	S – Satisfactory with Minor Modifications	N – Needs Improvement	I – Inadequate	X – Does Not Exist	N/A

OPERATIONAL USE & STAFFING		OVERALL RATING:	A
Primary Use:	■ Fire Apparatus Station ■ Ambulance Station ■ Command Staff Station ■ Headquarters ■ Suppl. Admin. ■ Training Facility ■ Ops/Logistics		
Primary Apparatus:	ME35, MA35	Min. Staffed Personnel:	3
Secondary Apparatus:	HM35, Decon35		

Comments & Notations

- Station 33 serves as the City's hazardous materials response specialists

FACILITY & PHYSICAL STRUCTURE		OVERALL RATING:	A
Ownership:	Sandy City	Square Footage:	6,800 sq ft
Shared Space:	**N/A**	Construction Type:	Brick
Year of Construction:	2001	Env. Hazards Prevention:	N/A
Year Occupied:	2001	Visual Integrity:	**Adequate**

Comments & Notations

- Moisture noted on front entry bricks, indicates moisture inside
- Community/Training room converted into storage

APPARATUS BAY & STORAGE		OVERALL RATING:	N
Apparatus Bay Space:	Needs Work	Decon/Cleaning Access:	Adequate
Climate Control:	Adequate	Maintenance/Repair Area:	Adequate
Exhaust System:	Adequate	Gear Storage Space:	Needs Improvement
CO/Alarm System:	Needs Work	Equipment Storage Space:	Adequate
Water Drainage:	Adequate	Bulk Storage Space:	

Comments & Notations

- MA35 is currently parked outside in the elements with supplies on board and unlocked compartments
- Turnout storage, diesel exhaust stains on/in walls, not NFPA 1971 compliant
- CO system in apparatus bay not working

OCCUPANCY & AMENITIES		OVERALL RATING:	A
Dayroom Amenities:	Adequate	Restrooms:	Adequate
Kitchen Amenities:	Adequate	Shower Access:	Needs Improvement
Dining Amenities:	Adequate	Crew Lockers/Storage:	Adequate
Office Space:	Adequate	Sleeping/Dorm Rooms:	Needs Improvement
Meeting/Training Space:	N/A	Laundry Access:	Adequate
Fitness/Exercise Access:	Adequate		

Comments & Notations

- Community/Training room converted into storage
- The addition of a sleeping quarters in the front lobby should not be considered a long-term solution
- The shower pan leaking in bathroom may cause structural damage
- Wi-Fi not suitable for training or report writing

ACCESS & SECURITY		OVERALL RATING:	A
Apron/Driveway:	Adequate	Generator/Back-up Power:	Adequate
Thoroughfare Access:	Adequate	Camera Monitoring:	Does Not Exist
Station Markings:	Adequate	Key/Code Door Access:	Adequate
Roadway Warning Lights:	Does Not Exist	Gated Parking Area:	Does Not Exist
Visual/Curb Appeal:	Adequate	Window Security:	Does Not Exist
Crew/Staff Parking:	Adequate	Remote Alarm Monitoring:	Does Not Exist
Public Access & Parking:	Adequate	Eyewash/Safety Features:	Inadequate

Comments & Notations

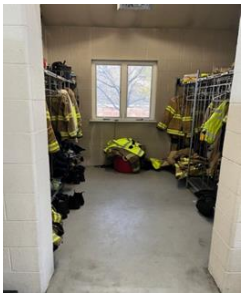
- Camera surveillance signage in front yard (no actual surveillance present)
- Key card access noted
- There is no emergency decontamination (eye wash/shower) noted upon inspection, per OSHA 1910.151(c)

ADDITIONAL COMMENTS & IMAGES

- Photos below were gathered by our consulting team during on-site visit








CONSULTANT'S OVERALL SUMMARY

Station 35 serves the north end of the City and serves as the hazardous materials response station with specialty equipment housed in this facility. The station is in good working order and structurally sound while noting the moisture in the exterior bricks that should be addressed before significant damage occurs. The station does pose some other issues that need quick attention, such as a leaking shower pan in the bathroom which can result in structural damage as well as wall damage, and no emergency decontamination area was noted upon inspection for eyewash or shower presence.

Turnout storage was of concern much like the other stations, however, this station showed diesel exhaust contamination on the walls and ceiling, certainly inside the air system could be presumed. Storage does not meet NFPA 1971 and should be remodeled for sustainability. The apparatus bay CO system was inoperable and should be addressed as well.

Much like Station 32 (of a similar design), an additional bunk room was added in the front entrance to accommodate additional crew members. Though this was done very well as far as construction is concerned, this should not be accepted down the road as permanent, and a remodel should be considered for staffing growth and crew continuity.

The station does exit onto a major multi-lane roadway but does have a traffic warning device, it was noted that it is only an engineering measure and does not guarantee a clear roadway for response. This station is limited to what apparatus is housed inside due to a sharp curve in the back of the station. The ability to place a ladder/truck company or large apparatus could not be considered.

4.1.6. Ancillary Facilities

Training Tower		LOCATION 8775 South 700 West Area Designator (Training Tower)

COMMENTS & IMAGES

- All images and information were given by Department personnel for assessment
- Only one fire hydrant noted on the training site
- Water supply has ruptured a few times in the past making the sole water source not reliable
- Aging structure - continuous inspection and maintenance program is highly recommended
- Good location for interagency training

CONSULTANT'S OVERALL SUMMARY
Although our consulting team did not have the opportunity to visit the Training Tower in-person, we were able to discuss the facility in detail with staff. The facility provides a good location for inter-agency training and is serving the needs of the Department currently. There is an obvious issue with water supply that our consulting team strongly recommends being investigated as it is a safety issue associated with live fire training and not compliant with NFPA 1403 standards, *Standard on Live Fire Training Evolutions*, which requires the attack and back-up pumper have separate water supplies. Outlook should include the possibility of a regional training facility that could include use by surrounding fire and police agencies.

4.2. General Considerations for Future Station Construction/Renovations

Highlighted below are general considerations for the Department as it pertains to updated NFPA 1500, 1710, and 1851 standards, industry best practices, or specific Department needs as future station construction and/or renovation projects occur. Many of these considerations, of note, have been considered in the proposed new Station 31 construction renderings.

- Consider all new stations have at least three bays large enough to accommodate drive-thru movement and parking of the Department's largest apparatus (typically a Truck).
- Consider enclosed/ventilated gear storage with minimal fluorescent light and no sun exposure compliant with NFPA 1971 standards.
- Incorporate cancer prevention measures such as the creation of hazard zones, proper PPE storage, decontamination rooms, diesel exhaust systems, and PPE cleaning extractors.
- Factor floorplan design elements and movement/walking flow for efficient turnout/response times.
- Consider OSHA regulations and NFPA standards when planning for any remodel or new construction.
- Consider sleeping and living accommodations for at least 8 personnel.

4.3. Fleet

The Sandy Fire Department's vehicle fleet encompasses several types of apparatus, vehicles, tools, and equipment essential for fulfilling its three-fold mission of Prevention, Mitigation, and Response

Each type of vehicle and apparatus plays a crucial role in the department's ability to effectively respond to a wide range of emergencies, from structure fires and medical incidents to hazardous materials spills and wilderness rescues. Regular maintenance, training, and equipment upgrades are essential to ensure the readiness and operational effectiveness of the department's vehicle fleet.

Types of vehicles the Department has, including the general characteristics of each vehicle, are detailed in **Figure 4.A.**, below.

					
ENGINE	**TRUCK**	**AMBULANCE**	**BATTALION CHIEF**	**SPECIALTY & SUPPORT**	**STAFF**
Also referred to as a "Pumper," these vehicles carry hose, ground ladders, have a water pump, and a water tank with 500-750 gallons of water.	Also referred to as a "Tower," "Ladder," or "Quint," SFD's Trucks have a large arial ladder capable of extending approximately 100 feet while also carrying additional ground ladders and having the same hose, pump, and water tank capabilities of an Engine.	Equipped with medical supplies, equipment, and trained personnel to provide transportation to the hospital. SFD's ambulances are capable of ALS care to the residents of Sandy.	The Battalion Chief vehicle an emergency response vehicle used to support incident command and coordination at emergency scenes. The shift Battalion Chief will use this vehicle daily for emergency and non-emergency operations.	SFD has a variety of specialty apparatus. These apparatus have specific functions beyond the traditional fire suppression apparatus. They will support operations related to hazardous materials, rescue, wildland, and incident command response functions.	Staff vehicles are used to transport personnel for daily administrative duties. These duties can range from public education, chief officer vehicles, and business inspections in a non-emergency capacity.

Figure 4.A. Summary Description of SFD Fleet Vehicle Categories

Table 4.B. shows the breakdown of FSRS credits earned for SFD structural fire apparatus (fleet) during their 2022 ISO evaluation.

Category	SFD Credit Earned	Total Credit Available
Engine Companies	**5.98**	6.00
Reserve Engines	**0.44**	0.50
Pump Capacity	**3.00**	3.00
Ladder Service	**2.14**	4.00
Reserve Ladder and Service Trucks	**0.47**	0.50

Table 4.B. SFD Fire Suppression Rating Schedule (FSRS) Credits for Fleet

Sandy's fleet management department utilizes a scoring system based on the American Public Works Association (APWA) standards to assess their fleet vehicles and equipment for potential replacement. [14] Cumulative scores are based on the categories listed below.

- Projected Age (Life Expectancy)
- Projected Mileage (Life Expectancy)
- Maintenance Costs compared to Purchase Price of the vehicle
- Service Count(s) per year
- Overall Condition

Each category is assigned a score (1-5), with higher scores indicating a greater likelihood that the vehicle needs replacement with the highest score being 25 points. By utilizing this scoring system, Sandy Fleet Management can systematically evaluate their fleet vehicles and make informed decisions regarding replacement needs. While a cumulative score is provided in this APWA rating system, a clear definition correlating the score and the vehicle's condition is not made. As a result, our consulting team has outlined our interpretation of the cumulative scores and corresponding vehicle condition via the APWA's rating system, as highlighted below.

- **1-6 Excellent** – Vehicles in excellent condition show minimal wear and tear, have low mileage relative to their age, and have undergone regular maintenance according to schedule. They show no significant mechanical issues or safety concerns and are considered reliable. These vehicles are in optimal condition and are expected to continue operating effectively for the foreseeable future.

- **7-11 Good** – These vehicles are generally well-maintained and in satisfactory condition overall. They may show some signs of wear and are of moderate mileage, they remain reliable and functional. Good-rated vehicles may require routine maintenance and occasional repairs but are reliable assets within the fleet.
- **11-18 Consider Replacement** - Vehicles categorized as "consider replacement" are nearing the end of their useful life or showing signs of significant wear, deterioration, or mechanical issues. While they may still be operational, they require frequent repairs, have high mileage, or exhibit other factors that compromise their reliability and cost-effectiveness. These vehicles should be part of the upcoming replacement plan and moved to reserve status to extend the service life.
- **19-25 Needs Replacement** - Vehicles identified as needing replacement are no longer cost-effective or reliable for continued use. They have either exceeded their recommended service life, experienced major mechanical failures, or become unsafe to operate. Replacement is necessary to maintain fleet efficiency, safety, and performance. These vehicles should be prioritized for replacement as soon as possible to minimize downtime and mitigate risks associated with continued use, especially in emergency response vehicles.

4.3.1. Engines

There are seven engines in the Department's fleet; four are frontline, one is operational for training only, and two are reserve status and used as a back-up unit or when a frontline unit needs maintenance/repair. 57% (4 of 7) of engines are categorized as "Needs Replacement" per the APWA rating system (**Figure 4.C.** and **Table 4.D.**).

Given the state of SFD's Engine fleet, it's clear that proactive steps need to be taken to address the situation effectively. It is recommended by our consulting team that an assessment of the current Engine fleet happens soon to evaluate the urgency of replacement needs. This should include replacement options, budget, and funding options such as grants, financing options, and leasing possibilities. By pursuing a discounted multi-engine purchase and following a strategic approach to fleet replacement, Sandy can effectively address the challenges facing its Engine fleet and restore its operational readiness and reliability.

Figure 4.C. Photo Collection of SFD Engines

Unit #	Asset #	Status	Year	Miles	AVG Mi/Yr	Purchase Cost	Total Maint. Costs	AVG Maint./Yr Costs	APWA Rating
ME32	0041	Front	2018	47,441	*7,907*	$516,829	$57,194	*$9,532*	15
ME33	0015	Front	2013	108,209	*9,837*	$448,524	$171,593	*$15,599*	20
ME34	0011	Front	2022	14,270	*7,135*	$830,000	$5,526	*$2,763*	10
ME35	0040	Reserve	2010	123,071	*8,791*	$390,937	$226,310	*$16,165*	21
R-ENG	0024	Training	2004	123,556	*6,178*	$423,970	$259,645	*$12,982*	20
R-ENG	0037	Reserve	2006	137,345	*7,630*	$489,617	$250,138	*$13,897*	18
R-ENG	0038	Reserve	2010	133,907	*9,565*	$389,066	$223,146	*$15,939*	20

1-6 Excellent 7-11 Good 12-18 Consider Replacement 19-25 Needs Replacement

Table 4.D. Fleet Details for SFD Engines

4.3.2. Trucks

There are 2 Ladder Trucks in the Department's fleet; one is frontline, and one is reserve status and used as a back-up unit or when the frontline unit needs maintenance/repair. 50% (1 of 2) of the ladders trucks are categorized as "Needs Replacement" per the APWA rating system (**Figure 4.E.** and **Table 4.F.**).

Given the current condition of SFD's ladder truck fleet and the recommendation from the consulting team, it's crucial to take proactive steps to address the situation effectively. Our consulting team believes the 1999 reserve Truck is costing the City more money than it is worth, however, the frontline single-axle Truck does not meet the needs of the City. It is highly recommended to conduct a thorough assessment of both ladder trucks in Sandy's fleet to evaluate their mechanical condition, structural integrity, operational reliability, and suitability and develop a plan for replacement, including budget, and funding options such as grants, financing options, and leasing possibilities.

Figure 4.E. Photo Collection of SFD Trucks

Unit #	Asset #	Status	Year	Miles	AVG Mi/Yr	Purchase Cost	Total Maint. Costs	AVG Maint./Yr Costs	APWA Rating
T31	0042	Front	2019	49,600	*9,920*	$1,100,000	$100,870	*$20,174*	15
R-Truck	0027	Reserve	1999	108,826	*4,353*	$658,912	$492,987	*$19,719*	23

1-6 Excellent 7-11 Good 12-18 Consider Replacement 19-25 Needs Replacement

Table 4.F. Fleet Details for SFD Trucks

4.3.3. Ambulances

There are five ambulances in the Department's fleet; four are frontline, and one is reserve status and used as a back-up unit or when a frontline unit needs maintenance/repair. 40% (2 of 5) of ambulances are categorized as "Needs Replacement" per the APWA rating system (**Figure 4.G.** and **Table 4.H.**).

SFD's current ambulance fleet needs an evaluation and replacement planning process. It is important to take proactive measures to address the current situation and ensure the continued effectiveness of ambulance response services. The average $10,000 annual cost for maintenance needs to be weighted versus the purchase of new apparatus. Our consulting team believes a thorough review what future ambulances look like for Sandy Fire Department and consider looking for cost savings as well as reducing wear and tear on frequently used apparatus. Sandy currently utilizes large ambulances, even four-door cabs that add to cost, reduce turning radius, and add to wear and tear with the additional weight that could be modified in future purchases.

Figure 4.G. Photo Collection of SFD Ambulances

Unit #	Asset #	Status	Year	Miles	AVG Mi/Yr	Purchase Cost	Total Maint. Costs	AVG Maint./Yr Costs	APWA Rating
MA31	0032	Front	2016	124,173	*15,522*	$234,858	$79,135	*$9,892*	17
MA32	0045	Front	2019	76,285	*15,257*	$253,662	$47,777	*$9,555*	13
MA34	0022	Front	2016	112,139	*14,017*	$233,882	$76,148	*$9,519*	19
MA35	0047	Front	2019	24,613	*4,923*	$47,514	$53,569	*$10,714*	17
R-AMB	0002	Reserve	2009	140,930	*9,395*	$156,782	$104,007	*$6,934*	20

1-6 Excellent 7-11 Good 12-18 Consider Replacement 19-25 Needs Replacement

Table 4.H. Fleet Details for SFD Ambulances

4.3.4. Battalion Chief Vehicle

There is only one Battalion Chief vehicle in the Department's fleet; there is only one vehicle available that can be used as a back-up unit when the frontline unit needs maintenance or repairs. The frontline unit is categorized as "Consider Replacement" per the APWA rating system (**Figure 4.I.** and **Table 4.J.**).

The Battalion Chief vehicle is only five years old with an appropriate number of miles driven. The alarming number is the total maintenance cost associated vs. the purchase price. Sandy is approaching 70% of the purchase price to maintain this vehicle. Our consulting team recommends purchasing a new vehicle purchase for the on-duty Battalion Chief and moving the current vehicle into reserve status to extend the life of the vehicle.

Figure 4.I. Photo Collection of SFD Battalion Chief Vehicle

Unit #	Asset #	Status	Year	Miles	AVG Mi/Yr	Purchase Cost	Total Maint. Costs	AVG Maint./Yr Costs	APWA Rating
BC31	0043	Front	2019	39,564	*7,913*	$31,678	$22,009	*$4,402*	14

1-6 Excellent 7-11 Good 12-18 Consider Replacement 19-25 Needs Replacement

Table 4.J. Fleet Details for SFD Battalion Chief Vehicle

4.3.5. Specialty Response & Support Vehicles

There are nine specialty response and support units in the Department's fleet; all are frontline, and there are no reserve status and used as a back-up unit or when a frontline unit needs maintenance/repair. 10% (1 of 10) of specialty units are categorized as "Needs Replacement" per the APWA rating system (**Figure 4.K.** and **Table 4.L.**).

It is important to note that our consulting team did not evaluate all ATVs (all-terrain vehicles) or trailers in the fleet, we only considered those that are used for emergency response and not utility use only. Those specific trailers and ATVs are the haz-mat decontamination trailer, mass casualty trailer, and ATV32 and ATV33. The haz-mat trailer is in good condition, however, is a large trailer that could pose a threat transporting to an incident. With today's updates on decontamination techniques, evaluation of actual use, the need to keep such a trailer should be evaluated. Selling the decontamination trailer would free up bay space as well as reduce maintenance costs to keep it within the fleet. Both ATVs are utilized for equipment shuttle and patient transport in remote settings. These lower cost vehicles probably do not fall into capital improvement, but maintenance of these should always be considered. The mass-casualty trailer is in "good" condition but should be evaluated for practicality, need, and cost associated with keeping it within the fleet.

The overall fleet of specialty apparatus needs future replacement and should be considered in a capital improvement program. Our consulting team recommends that an assessment of needs is conducted with specialty apparatus (i.e., Rescue, Haz-Mat, Collapse/Trench) weighed with surrounding departments availability of similar response vehicles. Metro Fire Alliance should prioritize auto-aid agreements as it relates to specialty response incidents. Emphasis should be placed on Sandy's wildland apparatus to ensure a reliable response to WUI events inside and outside the city limits.

Figure 4.K. Photo Collection of SFD Specialty Response & Support Vehicles

Unit #	Asset #	Status	Year	Miles	AVG Mi/Yr	Purchase Cost	Total Maint. Costs	AVG Maint./Yr Costs	APWA Rating
CMD33	0039	Front	1995	6,675	*230*	$0.0	$37,461	*$1,292*	14
HM35	0023	Front	1997	41,767	*1,547*	$172,000	$48,816	*$1,808*	15
HR	0026	OOS	1998	75,331	*2,897*	$150,521	$78,384	*$3,015*	18
WL632	0025	Front	1997	39,884	*1,477*	$20,071	$59,342	*$2,198*	18
WL633	0028	Front	2017	21,472	*3,067*	$125,000	$31,272	*$4,467*	16
WL634	0031	Front	2001	24,591	*8,197*	$25,703	$62,963	*$20,988*	16

1-6 Excellent 7-11 Good 12-18 Consider Replacement 19-25 Needs Replacement

Table 4.L. Fleet Details for SFD Specialty Response & Support Vehicles

4.3.6. Staff Vehicles

There are 8 staff vehicles in the Department's fleet; all are considered frontline, 22% (2 of 9) of staff vehicles are categorized as "Needs Replacement" per the APWA rating system (**Figure 4.M.** and **Table 4.N.**).

The Sandy staff vehicle fleet is in good condition overall. Certain vehicles (Asset #0020, #0021) should be replaced very soon. The expenditure-to-cost ratio is beyond the value those vehicles are providing. Asset #0034 should be a part of an upcoming replacement plan and evaluated for sale or reserve status for another purpose. Staff vehicles should be part of capital improvement planning and evaluated closely to help extend life as costs of the current fleet are high vs mileage driven.

Certain chief officer take-home (official use) vehicles should also include clear markings (beyond their current subdued color, approximately 4" height dimension) as to (1) not raise confusion with unmarked police vehicles and (2) to stay within the Internal Revenue Service regulations for Qualified Nonpersonal Use Vehicles (26 CFR Part 1, T.D. 9483), outlining that "unmarked police vehicles and clearly marked police and fire vehicles" meet this requirement. [15]

Figure 4.M. Photo Collection of SFD Staff Vehicles

Unit #	Asset #	Status	Year	Miles	AVG Mi/Yr	Purchase Cost	Total Maint. Costs	AVG Maint./Yr Costs	APWA Rating
Staff	0010	Front	2020	6,940	*1,735*	$43,180	$3,523	*$881*	7
Staff	0020	Front	2013	116,826	*10,621*	$41,375	$23,240	*$2,113*	19
Staff	0021	Front	2013	173,575	*15,780*	$18,422	$21,459	*$1,951*	21
Staff	0029	Front	2023	6568	*948*	$55,000	$6,695	*$6,695*	5
Staff	0033	Front	2023	7048	*7048*	$43,000	$6,911	*$6,911*	5
Staff	0034	Front	2016	71,795	*8,975*	$28,683	$13,008	*$1,626*	17
Staff	0046	Front	2018	31,549	*5,258*	$28,120	$3,810	*$635*	10
Staff	0048	Front	2018	52,013	*8,669*	$30,560	$5,016	*$839*	8
Staff	0058	Front	2018	44,233	*7,372*	$28,689	$11,504	*$1,917*	14

1-6 Excellent 7-11 Good 12-18 Consider Replacement 19-25 Needs Replacement

Table 4.N. Fleet Details for SFD Staff Vehicles

SECTION 5. INCIDENT & CALL DATA

5.1. Incident and Call Demand

Incident and call volume data was provided by the Department via three different platforms: Electronic patient care report (ePCR) platform, electronic national fire incident reporting software (NFIRS), and computer-aided dispatch (CAD) data provided by their dispatch centers.

5.1.1. Department Incident Data

Historically, SFD has reported annual incident (sometimes referred to as "call") volumes in two categories: fire and EMS. For the purpose of this Study, these incident volumes are further divided to show particular incident type differences within the "fire" category, which includes structure fires, fire alarms, vehicle/transportation fires, grass/WUI fires, other fire calls, hazardous situations, specialty rescues, vehicle extrications, service/public assistance, and other incidents. In providing this granular breakdown, our consulting team is able to better articulate a full perspective of the Department's call types and system demand, rather than solely through a fire and EMS lens – which truly hosts significant staffing differences in terms of need/volume depending upon each call type.

SFD responds to the majority of its incidents within the City of Sandy borders, while also participating in a "closest unit response" or "automatic vehicle locator" (AVL) automatic aid process whereby units respond based on their vehicle location, rather than an assigned district or municipal border. Within this process, SFD units may respond to neighboring communities – and vice versa – because of their proximity to the incident location. While the current system does have identified flaws and limitations (outlined elsewhere in this Report), the premise behind this dispatching/response method is that municipal borders, essentially, hold less weight than the proximity of nearby units. As a result, SFD units respond to neighboring municipalities just as often (theoretically) as others respond to the City.

For this Report, the term "incident" is more commonly used to indicate a unique event, while the term "call" is more commonly referred to instances where a particular unit responds. The sum of all calls may (will) not equate to the total incidents that the Department responds to, as one incident may necessitate multiple responding units and, therefore, one "call" per unit – all responding to the same (single) "incident."

5.1.1.1. Incident Volumes

Annual incident volume trends show a gradual increase for the Department year-over-year (Table 5.A. and Figure 5.B.), with fairly consistent month-to-month volumes and trends noted (Table 5.C. and Figure 5.D.), showing slight increases in the summer months. Based on this data, SFD's incident volume growth trend likely aligns with its steady population increase, which should show the Department increasing to approximately 9,100 incidents in 2024. Insight reported from the Department, moreover, indicates that a new medical care shelter within the City may increase this incident volume statistically higher than expected. On a daily basis, year-over-year trends show consistent incident volume patterns between the days of the week (Table 5.E. and Figure 5.F.), with the Department responding to approximately 24-25 incidents per day.

Item	2021	2022	2023
Annual Incident Volumes	8,227	8,900	9,049

Table 5.A. SFD Annual Incident Volumes (2021-2023)

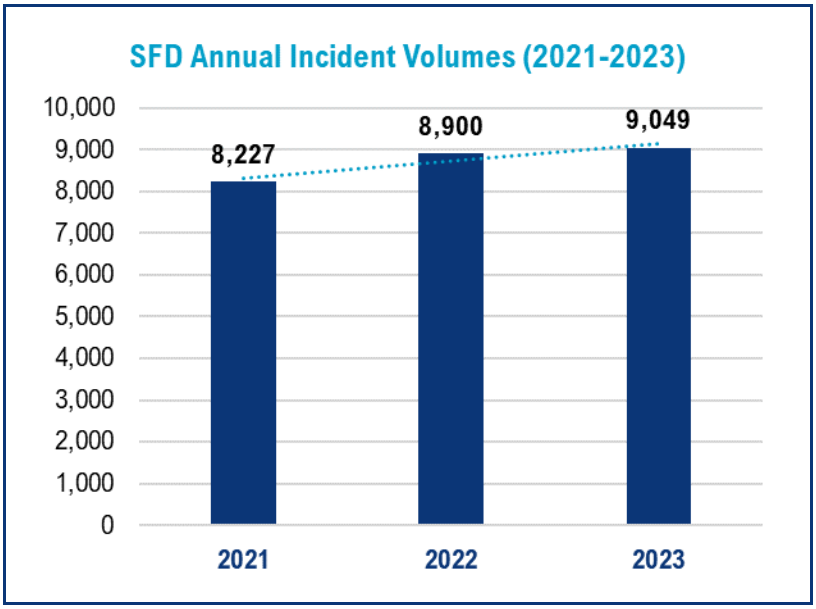


Figure 5.B. SFD Annual Incident Volumes (2021-2023)

Month	2021	2022	2023
January	635	675	767
February	585	688	678
March	600	683	761
April	623	713	733
May	678	705	760
June	717	704	755
July	860	962	875
August	744	822	785
September	691	709	744
October	677	759	719
November	658	745	698
December	759	735	774
TOTALS	8,227	8,900	9,049
AVG per Month	686	742	754

Red Indicates Lowest Monthly Volume for the Year
Green Indicates Highest Monthly Volume for the Year

Table 5.C. SFD Monthly Incident Volumes per Year (2021-2023)

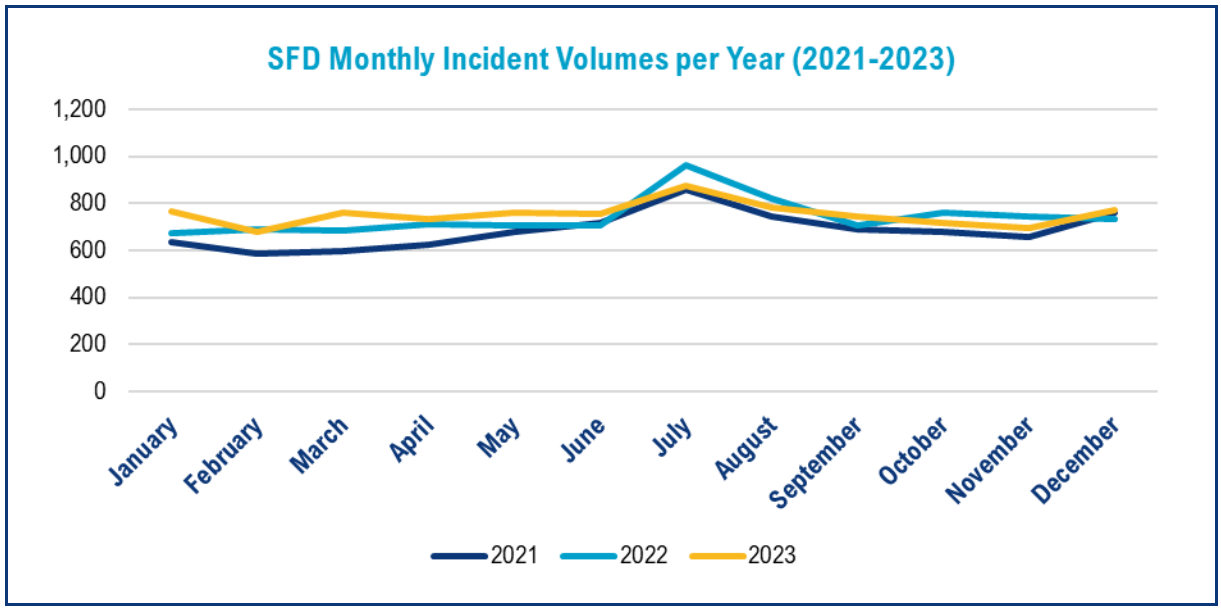


Figure 5.D. SFD Monthly Incident Volumes per Year (2021-2023)

Day of Week	2021	2022	2023	AVG
Sunday	1,100	1,207	1,228	1,178
Monday	1,204	1,296	1,269	1,256
Tuesday	1,135	1,297	1,339	1,257
Wednesday	1,099	1,284	1,253	1,212
Thursday	1,179	1,238	1,280	1,232
Friday	1,264	1,293	1,345	1,301
Saturday	1,246	1,285	1,335	1,289
TOTALS	8,227	8,900	9,049	8,725
AVG per Day	23	24	25	24

Red Indicates Lowest Daily Volume for the Year
Green Indicates Highest Daily Volume for the Year

Table 5.E. SFD Incidents by Day of Week per Year (2021-2023)

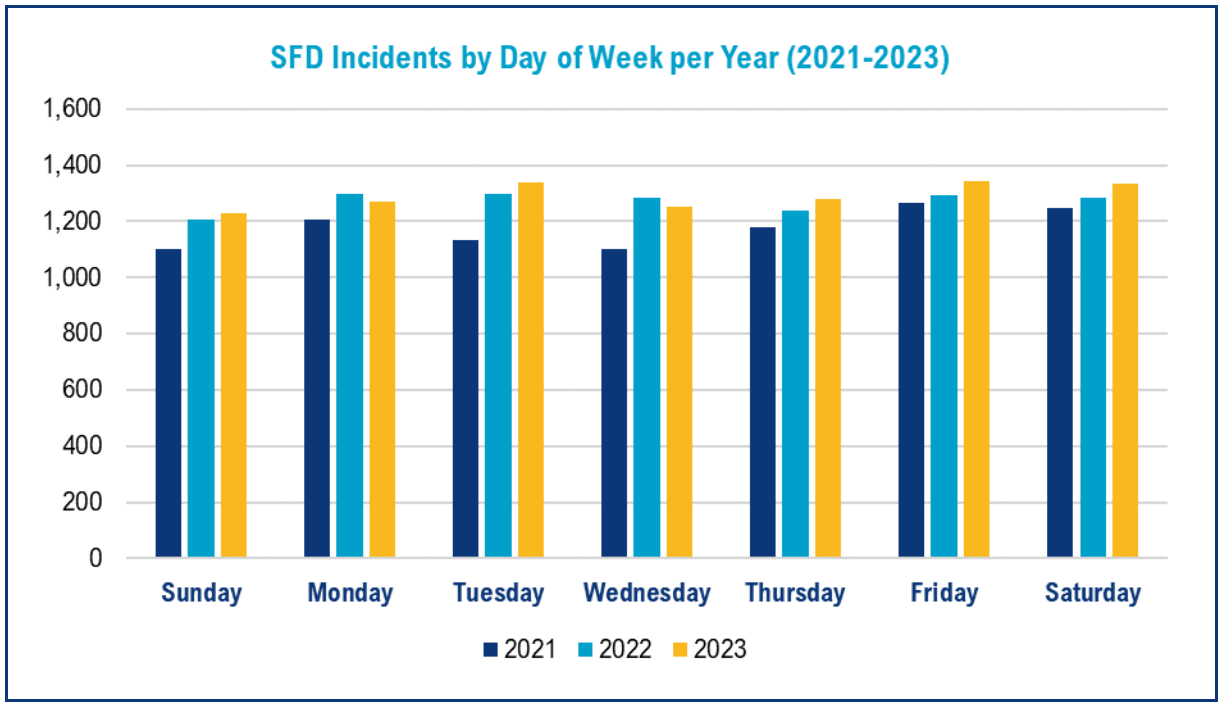


Figure 5.F. SFD Incidents by Day of Week per Year (2021-2023)

5.1.1.2. Incident Types

A three-year (2021-2023) analysis of incident types that SFD units respond to (both inside and outside of the City) reveals an expected trend of predominantly EMS calls at a rate of 3:1 for all incidents. **Table 5.G.** highlights an incident type breakdown for this time period, categorizing calls by: EMS, fire, hazardous situation, specialty/rescue, and service/other.

Incident Type	3-Year Total	3-Year %
EMS (Total)	**19,840**	**75.8%**
Fire (Total)	**3,841**	**14.7%**
Structure Fire	*651*	*2.5%*
Fire Alarm	*2,857*	*10.9%*
Vehicle/Transportation Fire	*149*	*0.6%*
Grass/WUI Fire	*70*	*0.3%*
Other Fire	*114*	*0.4%*
Hazardous Situation (Total)	**619**	**2.4%**
Specialty/Rescue (Total)	**198**	**0.8%**
Specialty Rescue	*122*	*0.5%*
Vehicle Extrication	*76*	*0.3%*
Service/Other (Total)	**1,678**	**6.4%**
Service/Public Assistance	*1,332*	*5.1%*
Other/Undefined	*346*	*1.3%*
TOTALS	**26,176**	**(100.1%)**

Table 5.G. SFD 3-Year Incident Type Analysis (2021-2023)

5.1.1.3. Peak Trends

Examining the time (hour) of day throughout the year for all incidents that SFD units are dispatched to, **Figure 5.H.** and **Figure 5.I.** display the peak 4-hour and 12-hour time periods for requests for services for the Department (2023 and 3-year trend, respectively). Based on these observations, SFD's peak incident trends show consistency between the individual 2023 patterns and collective 2021-2023 patterns, resulting in peak 4-hour time periods of 14:00-18:00 and overall peak 12-hour time periods of 09:00-21:00. Putting the 12-hour time periods into perspective, there are approximately twice as many calls that occur during the "daytime" hours of 09:00-21:00 when compared to the "overnight" hours of 21:00-09:00 (66%/34% in 2023 and 70%/30% in 2021-2023). Proportionately, this equates to a 2:1 daytime-to-overnight call volume comparison, which is a common observation of our consulting team with respect to assessing different fire departments and EMS agencies throughout the country.

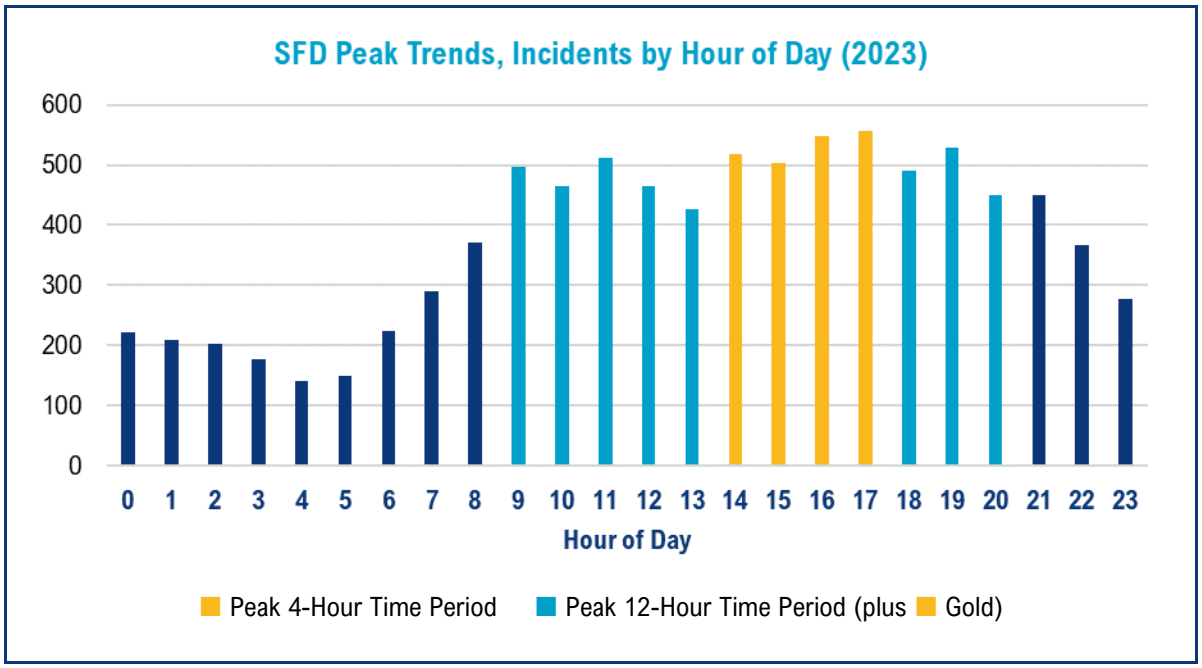


Figure 5.H. SFD Peak Trends, Incidents by Hour of Day (2023)

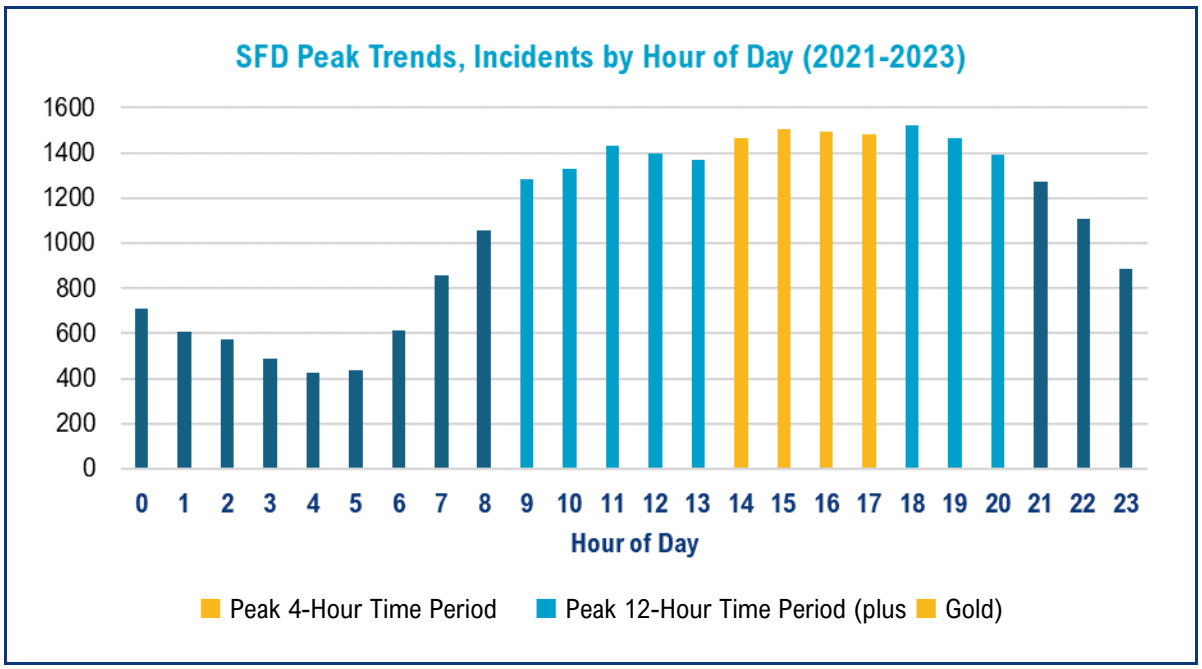


Figure 5.I. SFD Peak Trends, Incidents by Hour of Day (2021-2023)

Respective to an incident type breakdown between EMS and all non-EMS incidents and considering that EMS incidents consist of approximately 75% of SFD's call volumes, evaluating primary ambulance unit data reveals a relatively consistent 12-hour peak time period (actually 10:00-22:00) with a percentage of 66% daytime and 34% overnight (still a 2:1 ratio).

5.1.1.4. Incident Responses per Community

The majority (nearly 84%) of calls that SFD units respond to remain within City borders, however, such responses do not account for all incidents that occur within the City. In fact, tallying the total incidents within the City has proven to be a limitation of this Study because of the existence of three different dispatching entities involved within the City's borders based on the agencies responding: Salt Lake City Fire Dispatch (SFD's primary dispatching source), the surrounding Valley Emergency Communications Center (VECC – which all of Sandy's neighboring communities utilize), and the independent dispatching center through Gold Cross Ambulance (who responds to specific low-acuity EMS calls within the City). As a result, it is estimated that approximately 1,400 incidents (low-end prediction) occur within the City where the SFD is not dispatched as the closest agency/unit, or the call is immediately deferred to Gold Cross Ambulance due to the low-acuity nature of the call. Because the specific number of times when no SFD units respond to an incident within the City is not easily or regularly tracked by any of these dispatching entities, a true incident count for the City cannot be obtained. However, our consulting team's prediction is a reasonable estimation.

Reflecting on the incidents where SFD units do respond within the region, **Table 5.J.** outlines the incident responses per community for SFD units during a three-year time period. It should be noted that such responses may be as part of a primary assignment within the City (where only SFD units respond), as part of an automatic aid assignment (where SFD units may respond to a neighboring community as the closest unit with, or without, their community's units responding as well), or as a part of a mutual aid assignment (where SFD units respond with other neighboring units as a part of a larger incident). Due to the three dispatching centers existing within the greater Salt Lake Valley, there is no true or easy way to determine an exact or precise (unique) incident count for any fire/EMS agency as of this time.

Community	2021	2022	2023	3-YEAR TOTAL	3-YEAR %
Sandy	7,042	7,407	7,458	21,907	83.7%
Alta	3	22	22	47	0.2%
Bluffdale	2	4	2	8	0.0%
Brighton	1	10	11	22	0.1%
Cottonwood Heights	108	138	179	425	1.6%
Draper	164	207	253	624	2.4%
Herriman	0	0	1	1	0.0%
Holladay	7	3	2	12	0.0%
Kearns	0	0	1	1	0.0%
Magna	0	0	1	1	0.0%
Midvale	248	284	266	798	3.0%
Millcreek	1	0	2	3	0.0%
Murray	35	49	31	115	0.4%
Riverton	3	1	4	8	0.0%
Salt Lake City	1	5	4	10	0.0%
Salt Lake County	234	333	353	920	3.5%
South Jordan	67	102	124	293	1.1%
South Salt Lake	1	1	1	3	0.0%
Taylorsville	2	1	3	6	0.0%
West Jordan	27	27	57	111	0.4%
West Valley City	0	0	2	2	0.0%
White City	277	304	272	853	3.3%
(Not Defined)	4	2	0	6	0.0%
TOTALS	8,227	8,900	9,049	26,176	(99.7%)

Table 5.J. SFD Incident Responses per Community (2021-2023)

Specific to incidents that occur within the City of Sandy and regardless of the department or agency that responds to the incident, **Figure 5.K.** displays a map of the SFD response districts with its busiest districts highlighted for reference (based on provided 2022-2023 incident data).

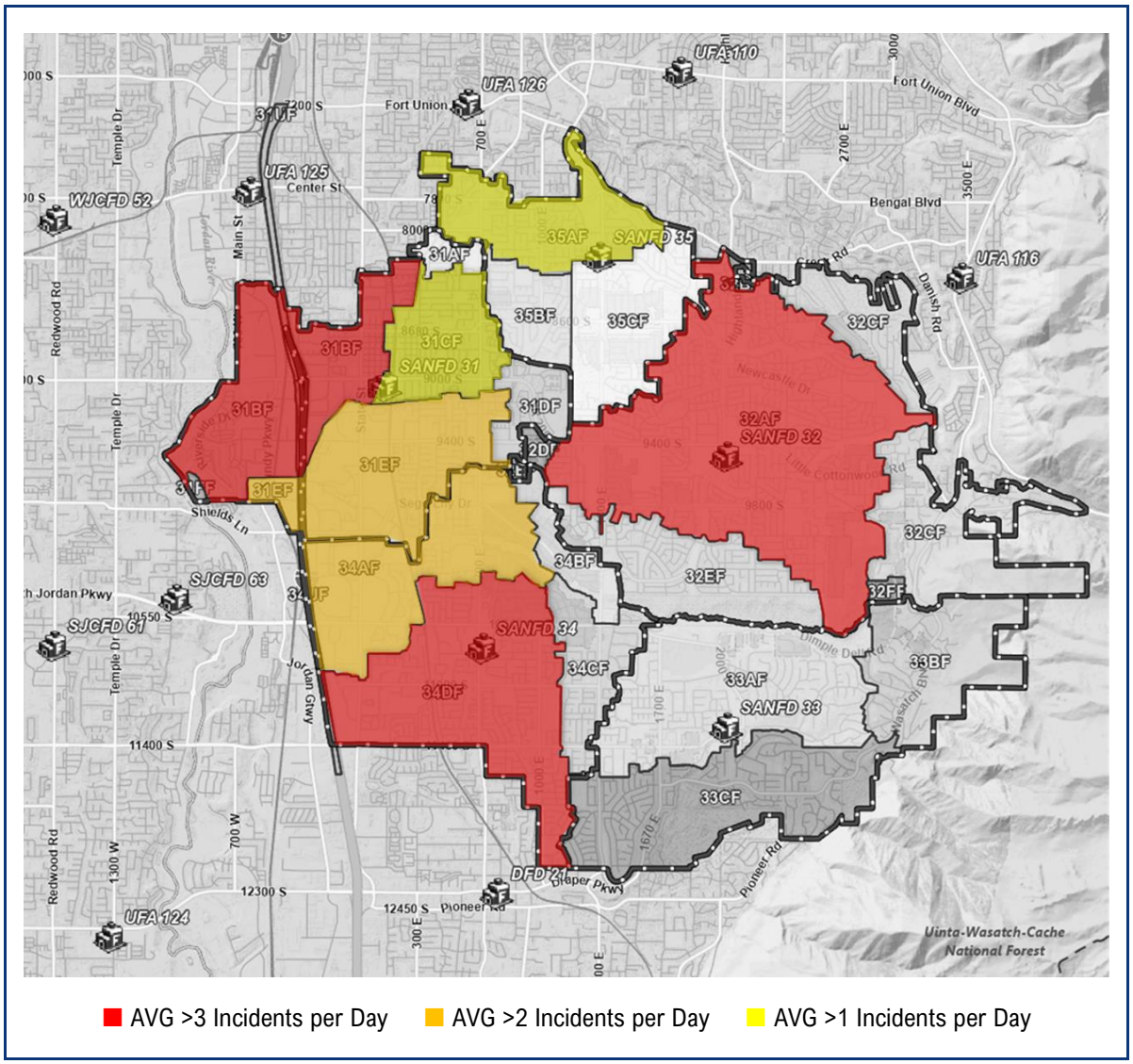


Figure 5.K. Map of SFD Response Districts Highlighting Average Daily Incident Volumes (2022-2023 Cumulative Average)

Analyzing the data gathered for this Study (including only 2022-2023 partial data), **Table 5.L.** provides estimations for the number of incidents within the City where potentially no SFD units respond and, therefore, only outside resources respond to incidents.

Incident Type	2022	2023
Reported Total Incidents in Sandy	**8,883**	**8,868**
Reported Auto Aid Unit Arrivals in Sandy	(1,167)	(927)
Reported Auto Aid Unit Transports in Sandy	(600)	(261)
SFD Responses in Sandy	**7,407**	**7,458**
DIFFERENCE	**1,476**	**1,410**
Reported Gold Cross Arrivals in Sandy	(*1,000)	(1,166)
Reported Gold Cross Transports in Sandy	(*500)	(604)
ESTIMATED TOTAL INCIDENTS IN SANDY	**9,650	**9,600
ESTIMATED INCIDENTS IN SANDY COVERED BY OTHER AGENCIES/DEPARTMENTS	**1,400-2,200**	**1,400-2,200**

**Projected based on 2023 data provided.*
***Adding Reported Total Incidents, plus 50% of Reported Auto Aid Transports, plus Gold Cross Transports*

Table 5.L. Estimated Incidents within Sandy with No SFD Unit Response (Only Automatic Aid) (Partial Data, 2022-2023)

5.1.1.4.1. Mutual/Automatic Aid Implications

Considering the data presented in **Table 5.L.** (prior), and accounting for the limitation of three total dispatching and incident/call record tracking entities, our consulting team considers the current mutual aid and automatic aid system in place to be operating efficiently, but it does present challenges with respect to accurate data tracking and reporting. Our consulting team suspects that there are approximately 1,400-2,200 unique incidents that occur within the City where no SFD units are dispatched (based on established closest-unit or low-acuity criteria that exist). These incidents are presumed to be largely attributed to automatic aid procedures established within the greater Salt Lake Valley, which impact all communities for both fire and EMS incident types.

To reiterate, automatic aid refers to situations that follow a dispatching process where units are automatically dispatched as a part of established first-unit or first-alarm procedure. Mutual aid refers to situations where additional units are needed because the initial incident has exceeded the capabilities of the primary units dispatched, or the initial agency (who would typically be dispatched first) does not have sufficient resources available and, therefore, requires the aid of neighboring agencies.

Respective to the aid that is provided to the City, data suggests that this equates to approximately 1,400-2,200 incidents per year based on established processes. Considering the data limitations presented, it is suspected that approximately 77-84% of all incidents within the City are either fully managed by SFD units, or have at least one SFD unit

present. This is not to say – in the least – that SFD isn't/hasn't been capable of covering its own City call volume. Rather, it points out that the collective and holistic system specifically diverts calls automatically to neighboring agencies.

As a point of inquiry, our consulting team has discussed the collective mutual/automatic aid system with representatives from both PSAPs and multiple neighboring fire departments and, while there are nuances and limitations with this system, our team determined that deviating from its established processes would not only be system disruptive, but time-consuming and potentially politically divisive. As such, further (SFD internal) evaluation of this system may be warranted at a later date, but not in the immediate future. This is not to say that the SFD should not consider a future transition toward utilizing the VECC (instead of Salt Lake City) as its primary PSAP. Further comments related to this item are forthcoming in this Report.

As for aid provided by SFD units, approximately 16% of SFD's responses are outside of the City, operating under the same mutual/automatic aid system as the neighboring communities and fire departments that provide services within the City.

The largest area of potential opportunity noted by our consulting team with respect to re-directing incident requests/responses comes from the low-acuity EMS incidents that occur within the City that are exclusively managed by Gold Cross Ambulance. These incidents – referred to as "alpha" calls (reflecting emergency medical dispatch/medical priority dispatching – EMD/MPDS – coding language) – include statistically low-acuity medical/trauma (EMS) incidents where only an ambulance is recommended to respond in a non-priority (no lights & siren) mode. These incidents are determined to be non-critical, non-time-sensitive, and may even present a higher rate of patient treatment-on-scene/refusal of transport.

Accounting for the new medical care shelter, it is anticipated these types of incidents will comprise a large percentage of the incidents that occur at this facility. As a side note – if this anticipation is correct – the payor mix for these incidents (and subsequent ambulance transports) will likely be higher toward the Medicaid and Medicare population, which will impact the net cost-per-call financial equation and resulting financial/operational return on investment – if that is of concern to the City.

Exploring the opportunity of transitioning all alpha/low-acuity responses to SFD (and away from Gold Cross Ambulance) in addition to the increased incident volumes that have resulted from medical care shelter, the addition of a fourth full-time staffed ambulance is a strong consideration for the SFD. Optimally, this fourth ambulance is recommended to be located at (new) Station 31 as a second ambulance unit. Locating a second ambulance at Station 31 would be designed to provide higher coverage in the City's busiest response district, allowing for every-other-call responses between the two ambulances staffed at the station, and reducing the need for a neighboring station's ambulance or automatic aid ambulance to be pulled into Station 31's primary response district (i.e., MA34 or MA35 responding into Station 31's district).

5.1.2. Unit Call Data

This section of the Report outlines individual primary unit call volumes (e.g., MA31, ME32) (**Table 5.M.**). These unit call volumes are specific to each unit and reflect a cumulative total that is larger than the actual incident dispatches/responses for the Department (as the incident volume reflects unique incidents, whereas the unit call volume reflects each unit dispatched to an incident – which may have one or multiple units dispatched). Additional ambulance unit workload metrics are analyzed, such as unit hour utilization (UHU), and show a comparison of unit workload between each ambulance for 2023 (**Figure 5.N.** and **Table 5.O.**). Of note, EMS and non-EMS calls were not differentiated within the UHU analysis for the ambulance units as a matter of consistency in reporting.

Overall, all SFD units appear to be operating within a subjectively "safe" call volume area to support the maintenance of 24-hour or 48-hour shifts based on the prior peak incident trends and individual unit call volume data. Additionally, the Department appears to be right-sized with respect to its fire apparatus and incident command needs, as well as its ambulance unit needs for the present time. However, growing incident volume trends and mutual/automatic aid incident volume data suggest an additional (fourth) full-time staffed (primary) ambulance unit is warranted in the near future. Current ambulance workload (UHU) remains relatively average or slightly below average in terms of this internal unit-comparing metric. Incorporating a future fourth full-time ambulance within the Department's staffing matrix (recommended at Station 31 as a second staff unit) would largely decrease the likelihood that other units (e.g., MA32, MA34) would need to respond into Station 31's response district. Further details related to such recommendations are forthcoming in this Report.

	2021		2022		2023	
Unit	Total Calls	Calls/Day	Total Calls	Calls/Day	Total Calls	Calls/Day
MA31	**2,157**	5.9	**2,243**	6.1	**2,202**	6.0
MA32	**1,489**	4.1	**1,680**	4.6	**1,617**	4.4
MA34	**1,898**	5.2	**2,019**	5.5	**2,015**	5.5
BC31	**440**	1.2	**473**	1.3	**667**	1.8
T31	**2,643**	7.2	**2,781**	7.6	**2,792**	7.6
ME32	**1,554**	4.3	**1,840**	5.0	**1,723**	4.7
ME33	**664**	1.6	**799**	2.2	**824**	2.3
ME34	**2,234**	6.1	**2,247**	6.2	**2,436**	6.7
ME35	**1,401**	3.8	**1,487**	4.1	**1,383**	3.8

Table 5.M. SFD Primary Unit Call Volumes (2021-2023)

Unit Hour Utilization (UHU)

Unit Hour Utilization (UHU) is a basic metric designed as an internal-agency quantifying tool to measure unit workload based on call volumes and on-duty hours. Its standard formula presumes that one call takes one hour to complete and divides the number of calls by the total on-duty hours of the unit. The resulting value is then correlated to a range highlighting unit workload.

$$\frac{\text{\# Calls}}{\text{\# Hours On-Duty}} = \text{UHU (Standard)}$$

For example, an ambulance responding to 6 calls during a 24-hour period would have a UHU of 0.25 [6 ÷ 24 = 0.25]. This value is often determined as an "Average" UHU (Note: this value is not commonly represented as a percentage, as it does not reflect productivity – which would be appropriately represented by a percentage).

< 0.15 Low	0.15-0.25 Below Average	0.25-0.35 Average	0.35-0.45 Above Average	> 0.45 High

This value and rating are not differentiated between 24-hour and 12-hour (or 8-10-hour) staffed units, but it could be fair to expect higher workload values from units with on-duty crews working less than a 24-hour shift.

Figure 5.N. Unit Hour Utilization (Abstract)

	2021		2022		2023		
Unit	Total Calls	UHU	Total Calls	UHU	Total Calls	UHU	UHU AVG
MA31	2,157	0.25	2,243	0.26	2,202	0.25	0.25
MA32	1,489	0.17	1,680	0.19	1,617	0.18	0.18
MA34	1,898	0.22	2,019	0.23	2,015	0.23	0.23

Table 5.O. SFD Ambulance Workload, Unit Hour Utilization (UHU) (2021-2023)

Related to the EMS calls that occur for ambulances, **Table 5.P.** shows the year-over-year comparison of SFD ambulance responses (for EMS calls) and transports for the Department. It should be noted that individual unit breakdowns of this data could not be obtained from the provided electronic patient care report (ePCR) dataset because multiple instances were noted in the system reporting that an engine or truck company (a unit other than an ambulance) was documented to have been the transporting unit. While the SFD has utilized "transport engines" in its past, it was confirmed with the SFD administrative team that this documentation does not reflect such a practice. Rather, it is likely that a paramedic (or other crew member) from an engine company either functioned as the primary paramedic on the otherwise EMT-staffed ambulance or served as an assisting paramedic for the paramedic-staffed ambulance and completed the ePCR record.

Such practices – and our consulting team's recommendations related to them – will be expanded upon later in this Report. Nevertheless, the outlined data is presumed to be relatively accurate, and the Department maintains a relatively consistent patient transport rate of approximately 70% for its EMS calls. Based on our consulting team's observations, these findings are similar to ambulance services and EMS transporting fire departments with a comparable demographic composition to Sandy.

EMS Item	2021	2022	2023
Ambulance Responses	5,544	5,977	5,858
Ambulance Transports	3,760	4,202	4,230
Transport %	68%	70%	72%

Table 5.P. SFD Ambulance Responses & Transports per Year (EMS Incidents) (2021-2023)

5.2. Call Response Times

Our consulting team analyzed available response time data for 2023, uncovering a consistent average for all EMS and structure fire incidents classified as medium to high acuity. All responding units arrive on scene, on average, between 6:30-7:30 (minutes:seconds) for all such incidents. Current National Fire Protection Association (NFPA) standards suggest that first-arriving units should arrive on scene within 5:00-5:20 minutes for high-acuity EMS and fire calls, 90% of the time (when accounting for the dispatch-to-arrival time). While such standards face scrutiny within the industry because they promote a lights & siren response – even when it may not be statistically warranted – they do serve as a baseline benchmark for discussion with regards to response performance. Additional anecdotal response times specific to EMS incidents exist and outline an 8:59 response time, 90% of the time expectation. However, these benchmarks are not specifically followed by the SFD. Nevertheless, **Figure 5.Q.** highlights the average response times for a full alarm of all SFD units arriving on-scene for different EMS and fire incident types, not just the first arriving unit (Example: If three units are dispatched to an incident, the times indicated show the total time it takes for the last unit to arrive on scene, not the first).

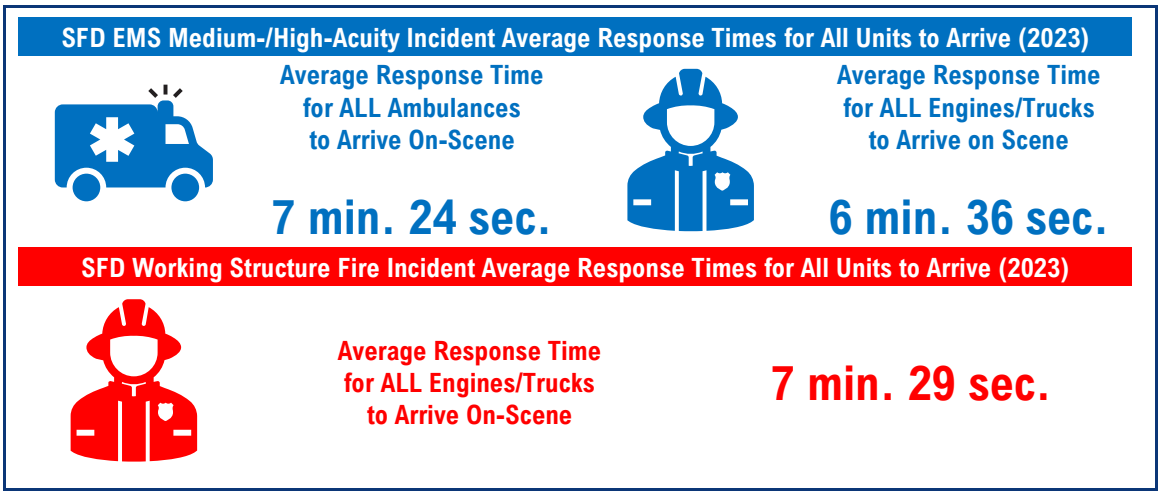


Figure 5.Q. Infographic of SFD Average Response Times in the City of Sandy for a Full Alarm Arrival (2023)

SECTION 6. COMPARABLE ASSESSMENT

6.1. Local Comparison

6.1.1. Comparable Overview

Our consulting team decided to add a local fire department comparison to this report to help better understand the surrounding auto-aid departments. Elements that are compared between each department include, but are not limited to, call volume, number of stations, department and apparatus staffing levels, apparatus types and deployment practices, and department budgets. Our consulting team did not evaluate the larger departments in the area like Salt Lake Fire Department or United Fire Authority (UFA) to keep the comparisons relevant.

6.1.2. Department Summaries

6.1.2.1. Draper Fire Department

The Draper Fire Department (DFD), located in Utah, serves a population of over 55,000 residents from three fire stations. While Draper is similar to the SFD in various aspects, their most significant role is as a key stakeholder in SFD. Through auto-aid agreements, DFD collaborates with SFD by sharing resources and ensuring the closest unit responds to high-acuity calls. This cooperation enhances emergency response capabilities and strengthens the partnership between the two departments. [17]

6.1.2.2. South Jordan Fire Department

The South Jordan Fire Department (SJFD), located in Utah, serves a population of approximately 80,000 residents from four fire stations. Similar to SFD in terms of size, number of stations, and geographic proximity, SJFD is also a crucial partner for SFD. The two departments have established auto-aid agreements, which enable the sharing of resources and ensure that the closest unit responds to high-acuity calls. This collaboration makes the SJFD a key stakeholder for the Sandy Fire Department. [18]

6.1.2.3. West Jordan Fire Department

The West Jordan Fire Department, located in Utah, serves a population of over 119,000 residents. They operate out of four fire stations, with an additional station in the planning stages. The West Jordan Fire Department is comparable in size and call volume to SFD, and both departments have established auto-aid agreements with one another. These agreements facilitate the sharing of resources and ensure the closest unit responds to high-acuity calls, making the West Jordan Fire Department a key stakeholder for the Sandy Fire Department. [18]

6.1.3. Department Data Comparison

Table 6.A. below shows a side-by-side comparison of the local automatic aid departments to SFD. Details break down city size, incident types, stations, staffing, apparatus types, budget, and accreditations if applicable. The data for "Other Incidents" is intended to capture everything outside fire and EMS, such as haz-mat, odor calls, service calls, etc. Our consulting team recommends always having granular data available for further tracking and analysis, rather than simply clumping these elements into one larger category – which has traditionally been performed by SFD and other local fire departments.

Category	Sandy	Draper	South Jordan	West Jordan
DEMOGRAPHICS				
Population	**96,904**	**55,400**	**90,000**	**119,400**
Sq. Mi. Coverage Area	24.13	28.4	25.4	32.02
INCIDENT VOLUME & DEPARTMENT OVERVIEW				
Total Incidents	**9,049**	**4,154**	**8,092**	**7,917**
Fire Incidents	1,280	75	982	195
EMS Incidents	6,613	3,017	6,655	6,277
Other Incidents	1,156	1,062	455	1,445
ISO Rating	**2**	**2**	**2**	**2**
CFAI Accreditation	No	No	No	No
CAAS Accreditation	No	No	No	No
STATIONS & STAFFING				
Stations	**5**	**3**	**4**	**4**
Battalions	1	1	1	1
Engine Companies	**4**	**2**	**3**	**3**
Staffing per Engine	3	4	4	3
Ladder/Quint Companies	**1**	**1**	**1**	**1**
Staffing per Ladder/Quint	3	4	4	3
Ambulance Companies	**3**	**3**	**4**	**4**
Staffing per Ambulance	2	2	2	2
DEPARTMENYT BUDGET				
Total Expenses	**$13,459,900**	**$6,656,400**	**$12,798,511**	**$13,383,478**
Expense per Capita (Pop.)	$139	$120	$142	$112
Expense per Sq. Mi.	$557,808	$234,380	$503,878	$417,972
Expense per Incident	$1,487	$1,602	$1,582	$1,690
Expense per Station	$2,691,980	$2,218,800	$3,199,628	$3,345,870

Table 6.A. Data Comparison Table of Neighboring Fire Departments

6.2. National Comparison

6.2.1. Comparable Overview

This section consists of overview information highlighting comparable fire departments to those of Sandy Fire. Comparable departments were specifically chosen from Mountain/Western states as they most closely replicate the geography, fire/risk composure, housing demand, pay scales, and operational culture of one another. Each department referenced in this section of the Report was contacted directly by our consulting team and the information displayed was sourced directly from the department's administrative team or from other publicly visible (official) online sources.

Comparing Sandy Fire to a fire department in the Northeast or Midwest, as examples, may not provide as accurate of a reflection of such nuances compared to what departments in the Mountains/West offer. Factors utilized to determine such comparisons include, but are not limited to coverage/service population, coverage land area, and proximity to a large urban/ metropolitan center. Elements that are compared between each department include, but are not limited to, incident/call volume, number of stations, department and apparatus staffing levels, apparatus types and deployment practices, and department budgets.

6.2.2. Department Summaries

6.2.2.1. Provo Fire Department

The Provo Fire Department (PFD) serves a population of just over 113,500 residents. Situated approximately 34 miles south of Sandy, PFD operates five fire stations along with an additional station dedicated to airport response. Though PFD's service area is almost twice the size of SFD's, they have a similar population, risk with brush fire/WUI, and wilderness rescues. PFD's call volume, fleet size, and station numbers are very close to SFD making it a good comparison. One note is that their staffing is lacking compared to the recent changes that SFD has made in staffing levels, and it is reflected in Povo's ISO rating. [19]

6.2.2.2. Castle Rock Fire and Rescue

The Castle Rock Fire and Rescue Department (CRFR) in the town of Castle Rock, CO, is located just 30 miles south of Denver. CRFR serves a population of 83,600 from five fire stations. While the Town of Castle Rock spans 33 square miles, CRFR's service area within Douglas County is double that size. The department's staffing levels, and station numbers are similar to those of SFD, although CRFR has a slightly lower annual call volume. Renowned for its modern and up-to-date facilities and equipment, CRFR is a progressive department. It holds the Commission on Fire Accreditation International (CFAI) certification, which highlights its strategic, well-organized approach and ensures that its staffing, training, and equipment meet community needs as validated by a third party. [20]

6.2.2.3. Nampa Fire District

The City of Nampa, ID, is similar to Sandy as it is located just 20 miles outside a major city (Boise) along a major interstate. Nampa is slightly larger than Sandy at 31.34 square miles and is rapidly growing, with a population of approximately 120,000, comparable to Sandy's. However, fire coverage in Nampa differs from other departments mentioned, as it is managed by a fire district rather than a city department. The Nampa Fire District serves about 130,000 people from six fire stations. In 2022, the City of Nampa separated from its fire department, leading to the formation of the Nampa Fire District as an independent taxing entity. This shift allowed the fire district to secure sustainable funding for future growth.

The new fire district covers a larger area, including the entire city of Nampa and surrounding unincorporated areas, making the service population greater than that of the City alone. This model illustrates the potential benefits of fire protection independent of the city's budget. Establishing a fire district can offer several advantages, including reduced redundancies, enhanced coordination, stabilized funding, and decreased reliance on city budgets. Additionally, community representation is ensured through a Fire Board, which provides input, transparency, and decision-making. [21]

6.2.3. Department Data Comparison

Table 6.B. below shows a side-by-side comparison of the Mountain/Western state departments to the SFD. Details break down coverage size, incident types, stations, staffing, apparatus types, budget, and accreditations if applicable. This chart will give a quick snapshot of how SFD compares to similar-sized departments in the listed categories.

Category	Sandy	Provo	Castle Rock	Nampa
DEMOGRAPHICS				
Population	**96,904**	**113,523**	**83,640**	**130,000**
Sq. Mi. Coverage	24.13	41.7	66	100 (service area)
INCIDENT VOLUME & DEPARTMENT OVERVIEW				
Total Incidents	**9,049**	**7,966**	**6,686**	**11,267**
Fire Incidents	1,280	2,624	111	225
EMS Incidents	6,613	5,342	4,283	7,605
Other Incidents	1,156	*	1,818	3,437
ISO Rating	**2**	**3**	**2**	**2**
CFAI Accreditation	No	No	**Yes**	No
CAAS Accreditation	No	No	No	No
STATIONS & STAFFING				
Stations	**5**	**5 + Airport**	**5**	**6**
Battalions	1	1	1	1
Engine Companies	**4**	**3**	**3**	**5**
Staffing per Engine	3	2	3	3/4
Ladder/Quint Companies	**1**	**2**	**2**	**2**
Staffing per Ladder/Quint	3	2	3	4/5
Ambulance Companies	**3**	**5**	**3**	**0**
Staffing per Ambulance	2	2	2	0
DEPARTMENYT BUDGET				
Total Expenses	**$13,459,900**	**$12,436,216**	**$21,926,598**	**$22,566,616**
Expense per Capita (Pop.)	$139	$110	$262	$174
Expense per Sq. Mi.	$557,808	$298,231	$332,221	$225,666
Expense per Incident	$1,487	$1,561	$3,279	$2,003
Expense per Station	$2,691,980	$2,072,703	$4,385,320	$3,761,103

**Indicates that all reported non-EMS calls (i.e., fire, rescue, specialty, service) are counted as Fire calls and were not tracked separately.*

Table 6.B. Data Comparison Table of Comparable Fire Departments

SECTION 7. STAKEHOLDER ENGAGEMENT

7.1. Fire Department Workforce Interviews

Our consulting team conducted a four-day visit to Sandy in early March. The site visit consisted of visiting all stations and crews, as they were available. A tour of the City was given to our team by the Department's administrative team, highlighting station needs, equipment, fleet, high-risk sites (to include Dimple Dell Regional Park), water supply, and additional team interviews. Interviewing the Department's workforce serves as a valuable tool for gaining insights into departmental operations, employee satisfaction, and organizational culture. Our consulting team met with personnel while on-site in group settings as well as individual virtual interviews and group virtual interviews. During the interviews our team utilized open-ended questions to facilitate discussions, allowing employees to express their views on equipment, job satisfaction, training needs, organizational culture, and challenges within their roles. Our consulting team looked to identify common themes, comments, and cultural environment findings.

Our consulting team was able to conduct the following interviews with Department personnel:

On-site Visits

- 14 of 15 on-duty crews
- Combat Battalion Chiefs
- Fleet Manager
- Fire Chief – and virtual
- Deputy Chief – and virtual

Virtual Interviews

- Fire Marshal
- Training Chief
- Logistics
- Administrative Assistant
- Local 3162 & Firefighter Association

Our consulting team compiled the comments from these interviews with the comments from department personnel in conjunction with data from the anonymous survey to help identify issues and provide actionable recommendations.

The top common themes noted were as follows:

- Positive employee culture
- Budgeting constraints
- Station conditions deteriorating
- Apparatus/Fleet condition
- Lack of training budget
- Personnel needing to fill dual roles on apparatus (i.e., being the Captain or Engineer and the only Paramedic on the apparatus)
- Personal protective equipment lacking
- Needing a fourth ambulance in service

7.2. Fire Department Prior Survey Assessment

A recent (2022) internal SFD survey was conducted that focused on questions related to Department staffing levels, training opportunities, facilities/amenities, and other operational employee satisfaction elements. Similar surveys have been conducted in prior years to this, which appears to stir sentiments of malaise by the workforce as they have expressed to our consulting team that they believe their comments either fall on deaf ears or are regularly met with responses on a lack of funding. Conversational responses to these surveys from opposite viewpoints point toward sentiments of a clashing communications channel within the City, whereby budgeted requests from the Department do not always make their way to the City Council but do appear to be the Council's "fault," nonetheless, when wanted items are not subsequently funded.

Summarizing this prior survey, five topics appear to emerge as key areas of discussion:

(Of note, the following summary is based on a Department survey from 2022 and does not reflect any changes or strides made since then.)

- **Staffing:** Transitioning from 2-person fire apparatus minimum staffing toward 3-person minimum staffing appears to be a significant source of praise and optimism from the Department employees.
- **Training:** While internal training provided within the Department is viewed as generally sufficient, limitations are noted around the limited and overloaded training staff resources, resulting in less-than-optimal sentiments amongst the combat firefighters. Comments surrounding this relate to the Training Captain regularly being unavailable to conduct internal training due to being regularly assigned to new hire training being conducted at the Salt Lake Fire training center, and the Training Battalion Chief being routinely overtasked with other administrative and operational responsibilities besides conducting training. Additional internal comments relate to unsatisfactory content being provided by their learning management system vendor, while the Department has also increased its reliance on such electronic/computer-based training means. Externally, there appears to be a high level of interest by the combat firefighters in attending training outside of the Department – or in having outside resources come into the Department to present, but a regular lack of funding to support this. 90% of the respondents voted that the Department did not provide adequate support or opportunities for external training.
- **Specialty Services:** 90% of respondents indicated that there was a perceived need to focus specialty response services toward addressing wildland-urban interface (WUI) risks, and 80% supported the need for additional attention toward providing critical care paramedicine services within the Department's clinical scope of care. Universally, moreover, results pointed toward a current system that provides insufficient funding and training to maintain specialty credentials in all the Department's current specialty response disciplines.

- **Stations/Facilities:** Station 31 was commonly referenced as an inadequate facility to maintain future administrative and operational demands for the Department (and is currently being addressed through the construction of a new facility). Related to other (all) remaining stations, comments reflecting inadequate internet/Wi-Fi connectivity to complete required electronic reports or computer-based training surfaced as a common theme.
- **Uniforms and Personal Protective Equipment:** Common sentiments surrounding insufficient supplies or allocation of daily uniform attire were also noted; in addition to the need to address frontline and spare sets of personal protective equipment (PPE), such as turnout gear and task-appropriate gloves, were also referenced.

7.3. Fire Department Workforce Engagement Survey

A *Workforce Engagement Survey* was designed by our consulting team and approved by the Fire Department administrative team and the City's respective survey review/approval team. It was electronically sent to all SFD staff excluding the Chief and Deputy Chief (at their request as to not skew any results), which equated to 92 personnel. Participation was optional and anonymous. Overall, 68 participants responded, which equaled 74% of the total recipients.

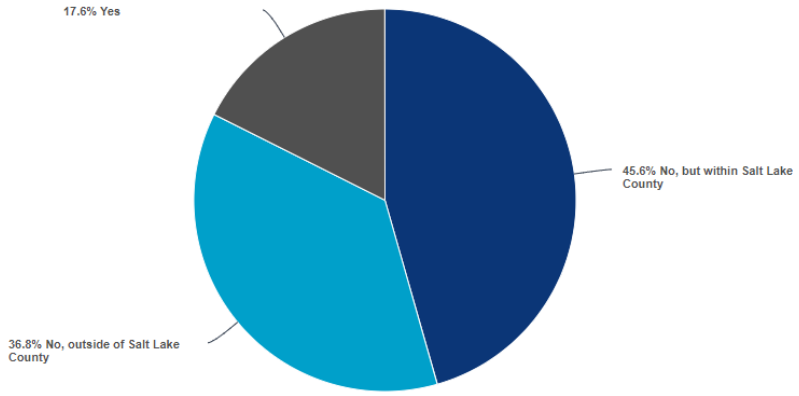
Below are the original survey questions with appropriate graphics for applicable items. Comments listed are summarized by our consulting team to retain anonymity of the respondents unless direct quotes are utilized.

KEY	Question #
	(Survey question/results screenshot)
	• Bullet point summary or interpretation items

NOTE: Quoted comments listed within each question/response herein are posted either verbatim or our consulting team has edited them for grammatical errors and/or potential personal descriptors that may jeopardize the anonymity of the response.

Question 1

1. Do you live in the city of Sandy?

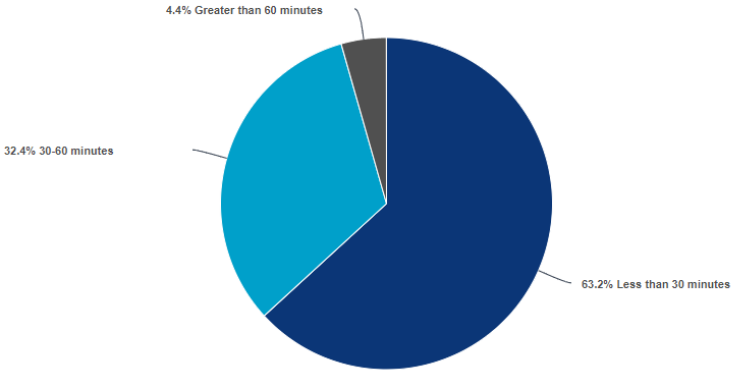


Value	Percent	Responses
No, but within Salt Lake County	45.6%	31
No, outside of Salt Lake County	36.8%	25
Yes	17.6%	12
		Totals: 68

- The large majority of SFD's workforce lives either within the City limits or withing Salt Lake County.
- Housing costs may be a factor to Department employees living in or close to Sandy.

Question 2

2. What is your average time/distance commuting to your primary station?

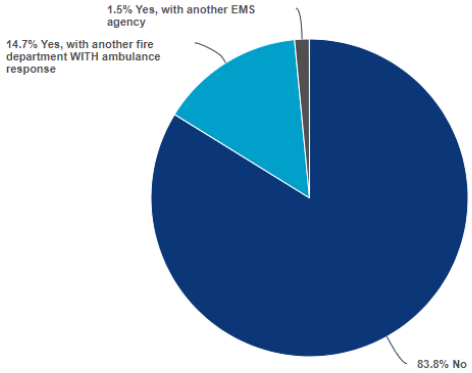


Value	Percent	Responses
Less than 30 minutes	63.2%	43
30-60 minutes	32.4%	22
Greater than 60 minutes	4.4%	3
		Totals: 68

- Having only 17.6% of personnel living inside the City limits, commute times are not considered to be long.

Question 3

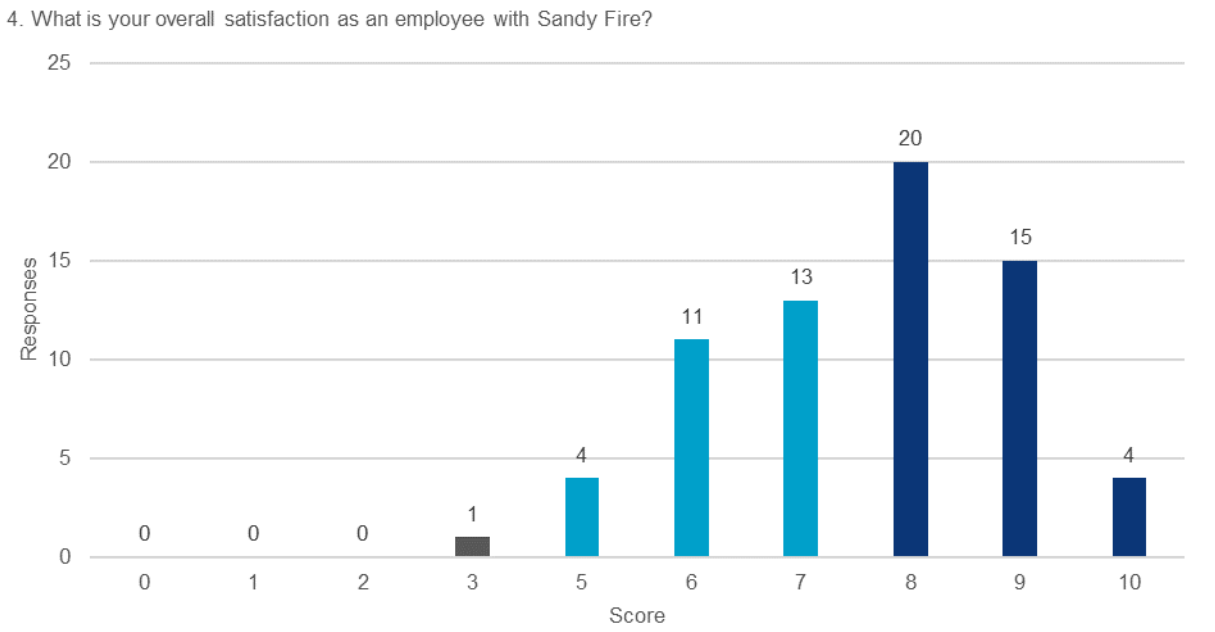
3. Do you work part-time for another fire department or EMS agency?



Value	Percent	Responses
No	83.8%	57
Yes, with another fire department WITH ambulance response	14.7%	10
Yes, with another EMS agency	1.5%	1
		Totals: 68

- These numbers are not alarming to our consulting team.
- The concern in the Valley is the high level of competition and the ease of lateral transfers between departments. Those already working a second job with neighboring agencies have greater opportunities to move when desired.
- These numbers, combined with the data from question #22 indicating that nearly 13% of employees may leave SFD (excluding retirements), suggest that departures from the Department could occur sooner rather than later.

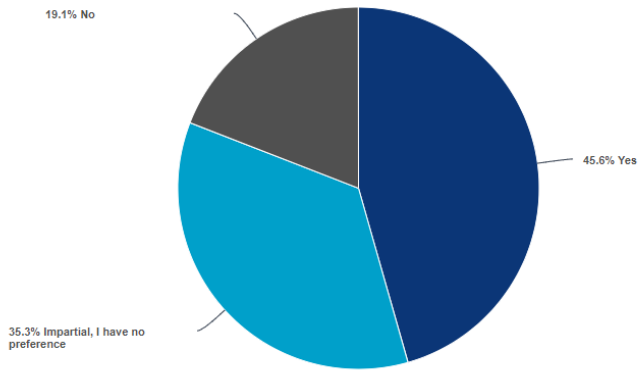
Question 4



- Most personnel are satisfied, or above satisfied, with the Department. This sets a positive tone and underscores the value of the workforce's perception of their working environment.
- Even with high satisfaction levels, there may still be areas for enhancement. These other areas will be highlighted throughout this Report to help drive continuous improvement by leveraging feedback from personnel to identify opportunities for further enhancing organizational effectiveness, employee satisfaction, and overall performance.

Question 5

5. Would you be in favor of a shift/station bid process?

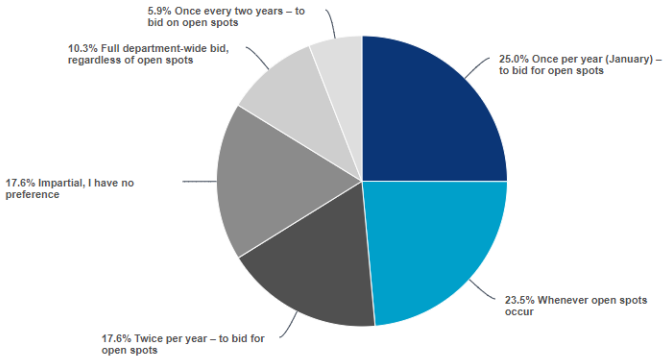


Value	Percent	Responses
Yes	45.6%	31
Impartial, I have no preference	35.3%	24
No	19.1%	13
		Totals: 68

- A bidding process is being evaluated as an opportunity for employees to bid into different shifts/stations based on seniority. Employees would be able to change their call volume, call type, crew makeup, etc., with this type of system when positions become available.
- With less than 20% of the participants being against a bidding system, it certainly is something for the Department and Union to consider implementing to provide movement opportunities and improve employee satisfaction.

Question 6

6. If a bidding process is implemented, how often do you believe shift/station bidding should occur to coincide with position openings (as in, only "open" positions would be available for bid)?



Value	Percent	Responses
Once per year (January) – to bid for open spots	25.0%	17
Whenever open spots occur	23.5%	16
Twice per year – to bid for open spots	17.6%	12
Impartial, I have no preference	17.6%	12
Full department-wide bid, regardless of open spots	10.3%	7
Once every two years – to bid on open spots	5.9%	4
		Totals: 68

- If such a system were to be implemented in the Department, opinions on how often the bids should be opened are very diverse. Often such a system allows for open spots to be bid on once a position is vacated with an option to re-bid the entire organization once every few years or whenever a system-impacting change is made, such as the addition of an apparatus or the movement of one apparatus type to another station.
- Collaboration with the Union to define any such bidding system parameters is strongly recommended.

Question 7

7. Do you believe that you currently have enough uniform supply to sufficiently perform your job, including spare items to account for second-day changes and contamination post-incident?

- There were 50 comments regarding the uniform allowance and whether it was sufficient as the budget stands currently.
- Exactly 50% indicated that they did NOT have enough uniforms or allotted funds to obtain uniforms to efficiently perform their jobs.
- Consensus of those indicating a "no" to this responded that the time to obtain uniform items can be more than eight months and that rising costs are not being considered regularly to support adequate uniform supply for each employee.
- *"No, I bought two pants and two shirts only this year and had to pay out of pocket to cover these. I didn't even get the higher-cost pants."*
- *"No, the uniform budget is still insufficient. A pair of boots is $500 and a pair of Nomex pants are $300."*
- *"When I got hired, I was given one t-shirt that was a medium and I needed a large. I was given a used coat with a broken zipper. I ordered a new job shirt/t-shirt and still have not received it. Uniforms status is very poor."*
- Six personnel indicated a "yes" to the question with no comments other than a delay in obtaining uniforms.
- 15 indicated a "yes" answer with comments. All those comments indicated that they had a long tenure and that is the reason they have had time to accumulate the appropriate number of uniforms.
- *"Yes, but that is just because of my longevity with the Department and care for the uniforms. I think that we have had many years of not receiving uniforms or only limited items that have left many without an adequate supply."*
- *"Yes, only because I've been here for 15 years. My guys with less than 3 years do not. We often give them old, used uniform supplies out of our personal uniforms just so they have enough."*
- Four personnel were indifferent as it did not affect them directly (working in administration) or they needed further information.

Question 8

8. What constructive criticism do you have about the current station assignments/daily staffing?

- There were 55 comments related to station assignments/staffing.
- There was a common theme in the comments related to Paramedic staffing. It was noted that Paramedics are not distributed evenly amongst shifts as well as no consistency on their priority of assignments. Consistency is regarding staffing another Medic Ambulance (e.g., MA35) versus staffing the truck (e.g., T31) with additional personnel. This decision is left in the hands of each Battalion Chief, daily, and without a staffing policy or matrix to consistently follow.
- *"Captains at some stations must act as both the Captain and the Paramedic. This happens regularly at station 35 and 33. This leaves the captain trying to decide in what capacity they should act. I feel this is a potential problem for the safety of the crew as well as a problem for the patient."*
- *"I feel like we could better spread our current resources around so that there are adequate Paramedics or specialists at each respective station."*
- It was noted that there is inconsistency with act-up opportunities. There is no written policy as to requirements needed to act in each respective position (e.g., Acting Captain, Acting Engineer).
- *"I wish there was a more defined and written out process for acting-in opportunities. That way individuals can have something to strive for."*
- It was expressed multiple times that roving seems to be never-ending and that finding a "home" can be difficult for many years.
- *"I feel a bid system would be a potential fix for this, but It's frustrating to me that there are certain employees that get overlooked on staffing regardless of if they are senior or not, and there are individuals that have been roving for years with no option to have a home station."*
- *"I feel that roving around to different stations so often and not having a 'home' is potentially detrimental to your mental health and also the cohesiveness of your crew."*

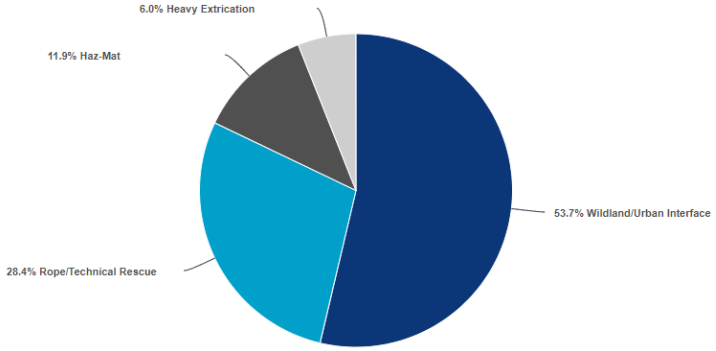
Question 9

9. Do you feel that Sandy Fire could eliminate the specialty station concept and have trained personnel stationed throughout the City to open station bidding/assignment opportunities? (Please elaborate)

- There were 64 responses that were divided with some neutral responses thrown in as well.
- 27 personnel were in favor of eliminating the specialty station concept while 21 responded with a "no" response.
- Many responses indicated more context was needed such as full elimination of the specialty, or removal of the station specialty only.
- *"Until the City/Department funds and supports specialties, we should do away with them and focus on fire/EMS skills and abilities."*
- *"Yes, if we are not being paid extra for specialties then we should eliminate the specialty concept and open up station assignment opportunities."*
- *"I believe having individuals trained in specialties is necessary but am impartial to the need for dedicated specialty stations."*
- *"I would prefer not to do away with specialty stations; we just need clarification on expectations as well as staying up-to-date on equipment. If those things can't be addressed, then yes, we should do away with them."*

Question 10

10. If Sandy Fire was to focus on one specialty discipline, which discipline do you believe would be most beneficial for the department to focus on?



Value	Percent	Responses
Wildland/Urban Interface	53.7%	36
Rope/Technical Rescue	28.4%	19
Haz-Mat	11.9%	8
Heavy Extrication	6.0%	4
		Totals: 67

- Over half of the responses indicated that Wildland Urban Interface (WUI) is the primary threat to the City and should be the primary focus of the Department.
- Personnel felt that Rope/Technical Rescue operations was the second priority for the Department.

Question 11

11. Regarding radio communications with other departments or with dispatching through Salt Lake City or the Valley Emergency Communications Center (VECC), what constructive comments, concerns, or recommendations do you have regarding keeping your department's current processes or changing them?

- There was a total of 60 comments regarding the use of Salt Lake City (SLC) dispatch versus using the Valley Emergency Communications Center (VECC), which all surrounding departments utilize.
- Almost 92% of responses were in favor of staying with SLC dispatch.
- Most common comments supported having their "own channels," low radio traffic, and easy communication.
- *"Extremely valuable to have our dedicated channels without having to share airtime with the rest of the Valley."*
- There were four impartial answers and one that indicated issues with moving to the VECC as their primary dispatch center.
- *"The current dispatch model that we operate creates a myriad of problems on scene. First and foremost, I have had several calls that were located on bordering city lines where units from Sandy were dispatched on our channel and neighboring units were dispatched on their respective channel. Nobody knew who was coming, who was on scene, or which units were where. I had several neighboring units arrive on scene with me but were on a VECC channel and we were unable to communicate. Second is that our radios are not programed with all of the VECC channels on them. For instance, if we are responding on staging channel 11, you must switch zones and search for that particular channel. This is the issue with VECC channel 6 and a couple of others."*

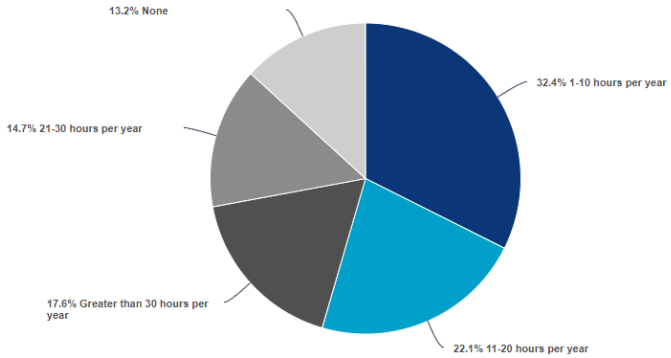
Question 12

12. If there was no financial loss to your base annual salary (without additional overtime), and your PTO/vacation accrual rate was adjusted accordingly, would you be opposed to switching from your current 19.5-hour pay structure to a 24-hour pay structure? (Please elaborate)

- There were 63 comments regarding the current pay structure and the thought about moving to the industry standard of 24-hour pay for each day worked.
- 35 personnel were opposed to any changes to the current pay structure.
- 15 personnel were in favor of the transition to a 24-hour pay structure.
- 10 would be in favor if equity with hourly rate and PTO was ensured.
- 3 indicated that it did not apply to them or did not make an indication of their preference.

Question 13

13. On average, how many hours per year do you attend training (for any fire/EMS discipline or topic) while off-duty and without hourly compensation for your attendance?



Value	Percent	Responses
1-10 hours per year	32.4%	22
11-20 hours per year	22.1%	15
Greater than 30 hours per year	17.6%	12
21-30 hours per year	14.7%	10
None	13.2%	9
		Totals: 68

- Over 85% of the Department indicated that they attend training off-duty and are uncompensated for their attendance and participation.

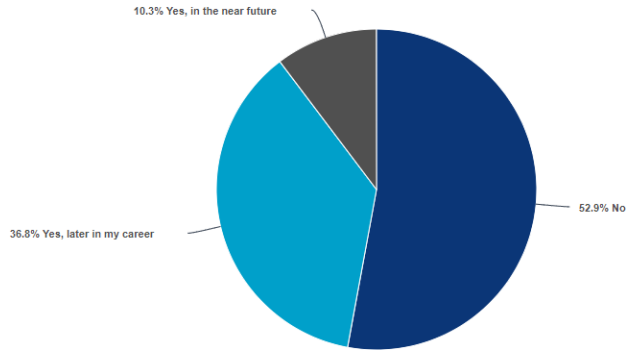
Question 14

14. Do you have any specific comments about the department's combat staff rank structure (i.e., Captain, Engineer, Senior Paramedic), its positions, their pay structure, and its promotional process? (Please elaborate)

- There were 52 comments submitted related to the current rank structure of the combat staff.
- 14 participants did not have a comment to contribute to the current rank structure of combat staff.
- Relating to Paramedic and Engineer equality of pay, comments were divided. Some felt that the Sr. Paramedic position is warranted to get more pay while others felt there should be parity in pay between the two positions.
- *"I am happy with the way it is other than I feel like Paramedic and Engineer should be the same level. They should be paid the same and ranked the same. We also need to create a Senior Engineer position."*
- *"I think that Senior Paramedics should be compensated more than Engineers due to the increased liability and workload."*
- There were several comments related to the Senior Paramedic position and that specialties should not qualify for the promotional process, as they do not have anything to do with the roles and responsibilities of being a company officer (e.g., Captain).
- *"I would like to see the Senior Paramedic more medically, like a Critical Care Paramedic."*
- *"I don't think that it's necessary for a Paramedic to need an additional specialty to promote to a Senior Paramedic position. With all the schooling required to become a Paramedic, alone (about 2 years or so), that should be its specialty in itself."*
- Many comments targeted the current promotional process and how specialties play too much of a role. It was also noted that skill was not heavily weighed in the promotional processes and outside personnel should be used to provide a non-bias evaluation.
- Many comments also indicated that there is no consistency with each promotional process from year-to-year, which brings frustration with individual preparation.
- *"Promotions should be based off merit, not time and a few certificates."*
- *"The promotional process is aggravating to me."*
- Relating to performing dual roles, Captains and Engineers are commonly being used as a primary Paramedic on fire apparatus but are not compensated for the additional training and responsibility of being a Paramedic.

Question 15

15. Do you have ambitions of being promoted to the rank of combat Battalion Chief within Sandy Fire?



Value	Percent	Responses
No	52.9%	36
Yes, later in my career	36.8%	25
Yes, in the near future	10.3%	7
		Totals: 68

- With over 45% of responses wanting to look for career advancement up to the rank of Battalion Chief, this a great statistic for internal recruitment.

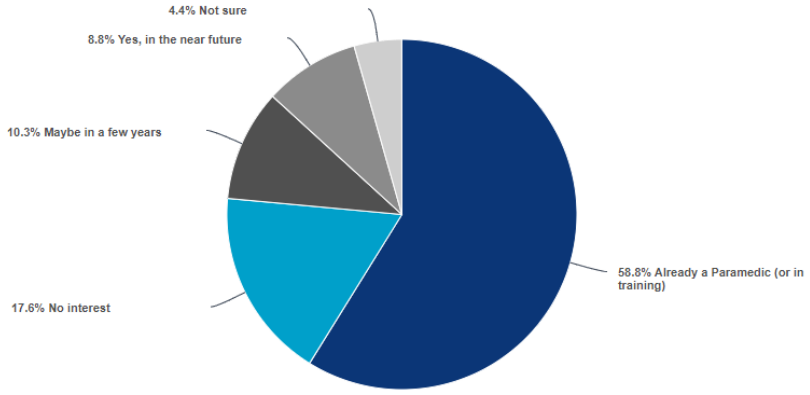
Question 16

16. Do you have ambitions of being promoted to an administrative officer/chief officer position within Sandy Fire, if one/more became available (i.e., Captain/Paramedic EMS Training/Quality Officer, Division Chief of Special Operations, Captain/Fire Marshal)? (Please elaborate)

- A total of 68 responses were received regarding their interest in being promoted to an administrative position within their career with the SFD.
- 53% indicated “no,” they do not have ambitions promoting to the administrative side of the Department.
- 37% responded with “yes, later in my career.”
- 10% showed interest in the near future pursuing a promotion to an administrative position.
- Comments were directed mostly to the lack of career development opportunities and very few positions to move into at the top.

Question 17

17. Do you have ambitions of becoming a Paramedic?

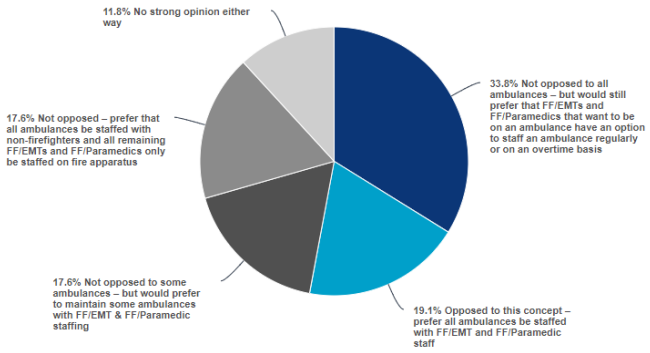


Value	Percent	Responses
Already a Paramedic (or in training)	58.8%	40
No interest	17.6%	12
Maybe in a few years	10.3%	7
Yes, in the near future	8.8%	6
Not sure	4.4%	3
		Totals: 68

- There are interested individuals who would like to pursue Paramedic training in the future.
- Careful consideration should be given to the financial support for paramedics, as well as their skill development and maintenance.

Question 18

18. What are your thoughts if Sandy Fire were to create an EMS division within itself that utilized civilian (non-firefighter) EMTs and Paramedics to staff some or all of its ambulances? Of note, these City/Department employees would be located in fire stations and would fall under the same chain of command structure as all Fire staff, and wear the same uniform.



Value	Percent	Responses
Not opposed to all ambulances – but would still prefer that FF/EMTs and FF/Paramedics that want to be on an ambulance have an option to staff an ambulance regularly or on an overtime basis	33.8%	23
Opposed to this concept – prefer all ambulances be staffed with FF/EMT and FF/Paramedic staff	19.1%	13
Not opposed to some ambulances – but would prefer to maintain some ambulances with FF/EMT & FF/Paramedic staffing	17.6%	12
Not opposed – prefer that all ambulances be staffed with non-firefighters and all remaining FF/EMTs and FF/Paramedics only be staffed on fire apparatus	17.6%	12
No strong opinion either way	11.8%	8
		Totals: 68

- The creation of an EMS Division is a long-term concept that will be discussed later in this Report.
- The idea of staffing ambulances with civilian personnel is not discouraged amongst the crews.
- Preference leans towards keeping trained FF/EMTs and FF/Paramedics on most of the ambulances, rather than single-role EMTs and Paramedics.

Question 19

19. Do you have any comments/concerns regarding potentially staffing ambulances with non-firefighter EMTs and Paramedics (who are Sandy Fire employees and fall under the Sandy Fire chain of command)? (Please elaborate)

- The survey provided 50 responses related to the possibility of staffing SFD ambulances with non-firefighter EMTs and Paramedics.
- 24% of the participants were against the idea of non-firefighters staffing ambulances for the Department.
- *"The level of care for the citizens could fall off. I have seen this plan implemented in other departments I've worked for, and it didn't work out so well."*
- The remainder of the responses were either in favor of the idea, or not opposed but had concerns. Concerns ranged from pay, quality of care, culture, and overtime.
- *"It could be a good job for people who don't want to be firefighters anymore."*
- *"I think it would be wonderful. There's more self-sponsored Paramedic and EMT students who want nothing to do with fire but want to be on an ambulance. There are also members currently in our Department that would rather be on an ambulance and not do any fire responses. This would only drive our recruiting effort up and make us more competitive. These positions would also give us a good look at candidates wanting to transition into fire positions."*

Question 20

20. Thinking about Sandy Fire as an organization, what do you feel are some of its strengths and opportunities?

- We received 61 comments regarding the strengths and opportunities for the SFD.
- The overwhelming majority indicated the strengths of the organization were the people, culture, pay, and customer service.
- Areas noted for opportunities were expanding all specialties, especially wildland operations.
- *"I think our employees that we have are our biggest asset and the culture is good and continues to get better through investing in our employees."*
- *"Our greatest strength is probably our culture of providing good customer service and respect to our citizens."*
- *"I feel this Department has very good personnel, and the comradery amongst personnel is very strong. The Department has been set on a very good path over the last year and a half, and if we continue to head in that same direction this Department will only become better."*

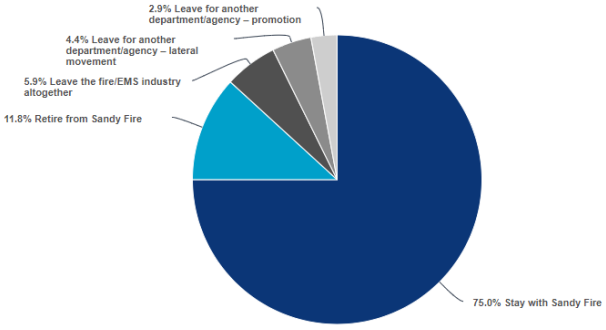
Question 21

21. Thinking about Sandy Fire as an organization, what do you feel are some of its challenges and risks?

- There was a total of 62 comments discussing risks and challenges to Sandy Fire.
- 30% of responses indicated that budget was a challenge to sustaining the organization; specificity training, staffing, and capital improvement were included in many of the comments.
- Accountability at all levels within the organization was noted several times, not moving problems around for other people to handle.
- Risks noted were wildland urban interface issues along with the risk of losing personnel to other organizations and burnout.
- *"The challenges this department faces, I think, are that it has outgrown the budget allowance given by the City. This Department does not have the funding necessary to continue upgrading apparatus and equipment at an efficient rate and adding the personnel to get us to proper staffing levels. I think the risks associated with this are that personnel could get burned out by not having these necessary resources and could possibly face another mass exodus as seen in previous years."*

Question 22

22. What is your current 5-year plan?



Value	Percent	Responses
Stay with Sandy Fire	75.0%	51
Retire from Sandy Fire	11.8%	8
Leave the fire/EMS industry altogether	5.9%	4
Leave for another department/agency – lateral movement	4.4%	3
Leave for another department/agency – promotion	2.9%	2
		Totals: 68

- 75% of those that participated plan on staying with the SFD for the next five years.
- 7% are thinking about leaving the SFD for another organization within the next five years.
- Nearly 12% plan on retiring from the SFD in the next five years.
- Planning for retirements and other departures is imperative to maintain staffing needs and internal promotional processes.

7.4. City Council and Administration Interviews

Our consulting team conducted interviews with various city, council, and administrative personnel to help provide insight into the governance and administrative processes of Sandy. Our team engaged in open discussion with the ability for questions to be asked by both parties to build an equal understanding of the city and the project. Key areas of focus were placed on the budget process, government structure, and challenges faced by the City and Department. Our consulting team looked to identify common themes, comments, and cultural environment.

Our consulting team was able to conduct the following interviews with department personnel:

- Mayor and CAO – on-site
- City Council – 5 members on-site and all 7 members virtually
- Council Director – virtual
- Assistant Council Director - virtual

Our consulting team compiled the comments from these interviews to help identify strengths and weaknesses to provide actionable recommendations to the City and Department.

The top common themes noted were as follows:

- Report structure and deliverables
- Fire Chief resignation impact
- Staffing (combat and administration)
- Budget process and shortfalls
- Fleet and station conditions
- Possible deficiencies

Overall, the City Council and administration were pleased with the progress made so far. Our consulting team ensured that we were available to answer any questions throughout the process and after the project's completion for continued support.

7.6. Local Fire Department Stakeholder Interviews

Our consulting team conducted interviews with the immediate surrounding fire chiefs and the two dispatch centers used in the valley to help provide insight into the working relationships, communications, and response models. Our team engaged in open discussion with the ability for questions to be asked by both parties to build an equal understanding of the city and the project. Key areas of focus were placed upon radio communications, special operations responses (haz-mat, technical rescue, etc.), staffing, and dispatch challenges. Our consulting team looked to identify common themes, comments, and cultural environment.

Our consulting team was able to conduct the following interviews with department personnel:

- Fire Chiefs from Draper, South Jordan, West Jordan, and United Fire Authority
- Dispatch supervisors from VECC and Salt Lake City

The top common themes noted were as follows:

- Duplication of resources in the Valley
- Actual effective response to special operations incidents
- Difficulty of having two dispatch centers
- Good movement with Sandy up staffing to 3 personnel per heavy apparatus
- No standardized SOG's on auto-aid responses
- Inconsistencies with real-time vehicle locations pending on who takes the 911 call
- Varying dispatch criteria between VECC and SLC

Overall, the stakeholders interviewed had a positive perspective on SFD and were pleased to be a key partner with them. The updated staffing received unanimous praise from all participants. However, the top areas identified for improvement were the use of a separate dispatching center and the weak special operations response capability.

SECTION 8. ADMINISTRATIVE ASSESSMENT

8.1. Consultant's Findings

This section outlines a non-prioritized listing of specific and general findings by our consulting team related to the Scope of Work for this Study, in addition to supplemental findings that were uncovered and are noteworthy to highlight. Key elements and supporting recommendations for each finding have been bolded for easy recognition. Prioritized and timeline-focused recommendations are also forthcoming within this section of the Report.

8.1.1. Sleep Time and Working Hours

The City's/Department's current sleep time and working hours policy is confusing and does not clearly align with Department of Labor (DoL) regulations and the Fair Labor Standards Act (FLSA). This is not to imply any impropriety by any party involved. Rather, the Department's *Supplemental Manual* indicates that for sleep time, "Five hours of the firefighter's 24.5-hour shift is sleep time and not considered hours worked and therefore not compensated. However, if a firefighter is not able to have five hours of sleep between the hours of 10:00 PM and 6:30 AM, the entire hours will be paid time." Our consulting team interprets this policy to reflect an "employees will only be paid if …" approach.

The Department of Labor's Code of Federal Regulations (29 CFR Chap. V §785.20-22) outlines that a "regularly scheduled sleeping time of not more than [eight] hours from hours worked …." "If sleeping period is of more than [eight] hours, only [eight] hours will be credited." It further outlines "If the sleeping period is interrupted by a call to duty, the interruption must be counted as hours work. If the period is interrupted to such an extent that the employee cannot get a reasonable night's sleep, the entire period must be counted." Then clarifying that "if the employee cannot get at least [five] hours' sleep during the scheduled period the entire time is working time." [22]

Comparing these two sources, the City's/Department's policy creates confusion by referencing an 8.5-hour time period, indicating that employees will only be paid if they do not get five hours of sleep, and Department employees regularly commented to our consulting team referencing the need to be awake for at least 3.5 hours – and anything less than 3.5 hours was uncompensated. Nevertheless, the policy's language creates confusion.

Furthermore, this policy raises multiple questions by our consulting team concerning practical hypothetical scenarios:

- What if an employee becomes injured or dies during this sleep time?
- Can an employee be required to remain in-station and ready to respond while not being compensated?
- What if an employee leaves the station during this sleep time period?

Separately, the practice of instituting a sleep time policy in a career fire department of SFD's size and call volume is an unheard-of practice by our consulting team. During our interviews with various Department administrative personnel, it was also noted that records tracking, timecard reporting, and payroll adjusting necessities related to this policy create a large weekly workload. Fundamentally, a policy like this would typically create a significant recruitment challenge for any fire/EMS agency anywhere in the country. However, it appears to be largely accepted by the Department's workforce (based on our consulting team's workforce engagement survey conducted). **This is a policy and practice that our consulting team does not recommend that the Department continue, even if it results in an added cost**. Discontinuing this practice would also allow the Department to change the combat firefighters' working schedule from a 24.5-hour shift to a straight 24-hour shift (and without impacting their incorporated 48-hours on/96-hours off scheduling practices and should not negatively impact an employee's paid-time-off accrual rate).

8.1.2. Unit Data Tracking and Report Documentation

During our consulting team's data analysis, it was discovered that the **designated transport unit for many of SFD's EMS incidents was noted as a truck or engine company and not an ambulance**. While it was reported to our team that this was a data-transfer issue related to the computer-aided dispatch (CAD) system communicating data with the Department's electronic patient care reporting (ePCR) system, **this is a finding that requires immediate investigation to assure that proper transport unit documentation occurs to meet any potential ground ambulance data collection or incident data reporting requirements**. It should also be considered a best practice to appropriately document the correct transporting unit for every EMS incident.

8.1.3. Promotional Process Parameters

The Department's current *Supplemental Manual – Promotional Point Values* document appears informal and incomplete regarding the full transparency of the promotional process. The document outlines point categories with respective point assignments; however, it is finalized with a statement that only 10 maximum points are allowed – which means that a promotional candidate may be awarded no education, training, or other category points and only receive time-in-office points (as an example). Beyond these defined 10 points, no other promotional process elements are outlined in either policy document.

Circling back to the *Promotional Process – (Combat) Captain* and *(Combat) Engineer* documents, our consulting team's interpretation of the total points available for either position is 20 total points – of which, the Chief Interview constitutes for 50% of the total points, where these 10 points are determined by the *Promotional Point Values* document.

Considering this interpretation, it has been expressed to our consulting team that a potentially different approach is utilized – and not fully communicated – for promotional processes.

As a result, **our consulting team recommends completely revisiting of the current promotional process candidate minimum criteria and points categories/value assignments, focusing on process transparency and labor-management collaboration**. Additional criteria may also be added around acting roles and their selection/validation processes and decreasing the emphasis on specialty training/credentials. Further consideration should also be given toward incorporating an independent, third-party assessment/recommendation component in this process.

8.1.4. Organizational Structure and Role Delegation

The current organizational structure of the SFD presents a "light" administrative team along with uneven role delegation for many of its chief officers. Particularly, its administrative Battalion Chief (two-bugle) positions function in a capacity that warrants a higher Division Chief (or comparable three-bugle) title. Many of the roles and responsibilities that are maintained by these positions are comparable to high-level manager through low-level director level functions with other City positions, while the traditional combat Battalion Chiefs function at more of a high-level supervisory through low-level managerial level of responsibility. As such, there is currently little to show a difference in the roles and responsibilities of these positions within the Department's current structure – which is by no means intended to downplay the role of the combat Battalion Chiefs. These positions currently have add-on managerial functions that could otherwise be assigned to dedicated administrative staff, rather than operational response staff who need to constantly remain aware of the crew status and incident demands within the City. **Specific to the current Battalion Chief of Training position, it is also significantly task-overloaded with logistics, data management, quality assurance, and operational elements that should otherwise be delegated to at least one or two additional positions manager-level positions.**

Respective to the current Deputy Chief (four-bugle) position, its roles and responsibilities are split between high-level management, high-level-director, and low-level executive functions; thus, creating an imbalance within the position. Combined with its administrative-focused responsibilities, this position could also be split into another equal Deputy Chief position, or into a subordinate Division Chief position. As such, **our consulting team has constructed two example organizational charts for consideration that would help to re-align administrative job functions within the Department, while also affording a stronger internal career development pathway for employees interested in rising throughout the Department's chief officer ranks, with an increase of five full-time employees/positions**. This re-alignment

should incorporate a respective section/division structure that coincides with general incident command system practices.

Figure 8.A. displays a proposed organizational chart with one Deputy Chief and multiple subordinate Division Chiefs (three-bugle), while **Figure 8.B.** displays a similar chart that starts with dividing the current Deputy Chief role into two positions, followed by supporting Division Chief positions. In both proposed options, an increased focus is placed on the separation of administrative and operational program management (divisions), as is represented through a clearly defined chain of command. Additional support positions are also noted, such as dedicated Captains and unranked civilian Coordinators and Specialists. For each of these administrative positions, dedicated official use cellular phones should be assigned and the use of personal phones for official business should be prohibited. Personal take-home vehicles should also be assigned for each Division Chief and higher rank, while available daytime-use vehicles should be available for other listed positions.

Of note, the current Logistics Coordinator position is recommended to be transitioned to a civilian position over time. While not listed on the organizational chart, the current administrative assistant position is recommended to be maintained and a medical director representative should be maintained on a contracted services basis. **Table 8.C.** outlines the delegated responsibilities for each proposed chief officer position position/division.

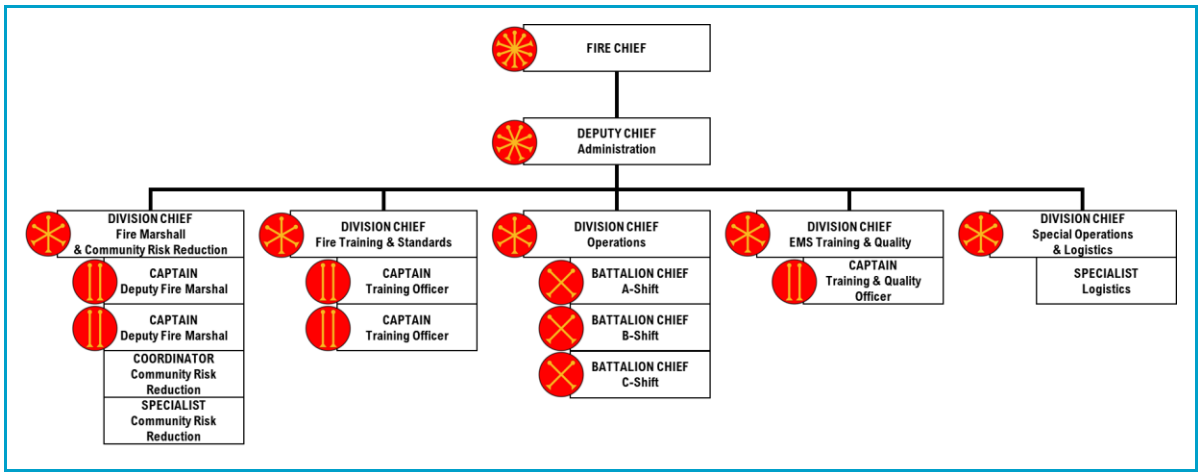


Figure 8.A. Proposed SFD Organizational Chart and Chain of Command Structure (Option 1)

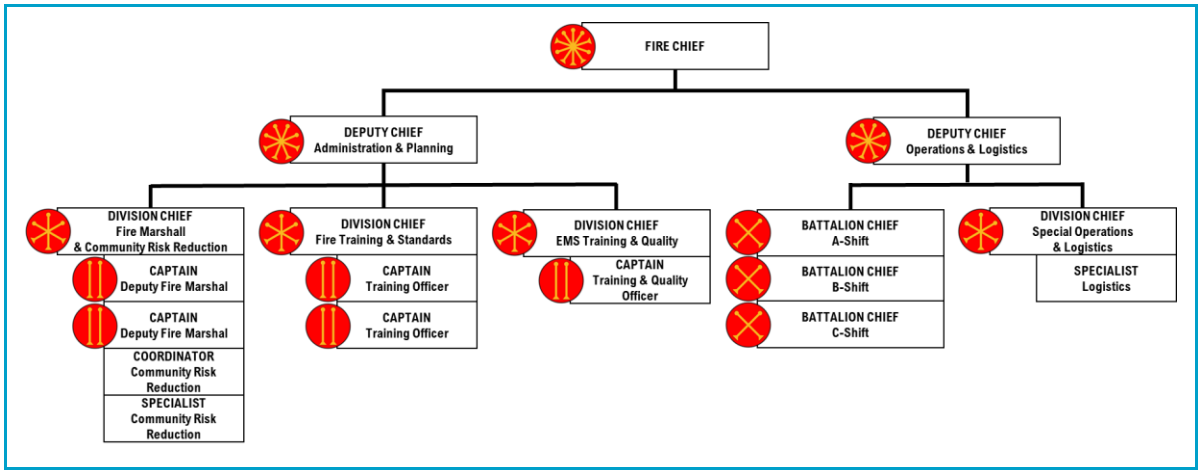


Figure 8.B. Proposed SFD Organizational Chart and Chain of Command Structure (Option 2)

Position	Responsibilities (Non-exhaustive List)
Fire Chief	Chief executive & financial officer, city representation, budget management, primary stakeholder group representation, capital planning, contract management, contract management
Deputy Chief/Admin. (Option 1)	Chief administrative officer, chief operations officer, human resources/personnel management, payroll management, policy management, compliance management, risk management, health & exposure reporting officer/management, public/media relations, records management, data management, procurement management
Deputy Chief/Admin. & Planning (Option 2)	Chief administrative officer, human resources/personnel management, payroll management, policy management, compliance management, risk management, health & exposure reporting officer/management, public/media relations, records management, data management
Deputy Chief/Ops. & Logistics (Option 2)	Chief operations officer, staffing management, dispatch representative, emergency management representation, special events planning, procurement management
Division Chief/Operations (Option 1)	Staffing management, dispatch representative, emergency management representation, special events planning, incident safety officer
Division Chief/Fire Marshal & CRR	Fire marshal designee, fire inspection management, fire investigation management, code compliance management, community risk reduction management, pre-planning management
Division Chief/Fire Training & Standards	Fire training program management, fire department standards management
Division Chief/EMS Training & Quality	EMS training program management, quality assurance program management, EMS compliance management, hospital/healthcare representation
Division Chief/Special Ops. & Logistics	Specialty operations program management, WUI program management, incident safety officer, incident rehab & recovery program manager, incident deployment management, logistics & supply chain management, facilities & apparatus management, equipment testing & management, information technology management
Battalion Chief/Shift	Shift supervision, crew resource management, incident management

Table 8.C. Proposed SFD Chief Officer Position Key Responsibility List

8.1.5. Training Services and Support

The Department's training division is overseen by a dedicated administrative Battalion Chief and supported by a dedicated administrative Captain. If these positions were solely dedicated to meeting the fire, EMS, and specialty response training needs of the Department's combat firefighters, there would be little for our consulting team to report. However, this is not the case with the utilization and task delegation for these positions. As a result, **multiple contributing factors lead to an understaffed and overstretched training division**.

Pertaining to the Battalion Chief position, this role is tasked with not only overseeing the training coordination needs of the Department, but also its EMS quality assurance, data management and reporting, logistics and procurement, occasional training delivery, and back-up combat Battalion Chief/safety officer responsibilities. **This position alone is overseeing the functions of what two or three different individuals should be accountable for.**

Respective to the training Captain, this position is frequently redirected to participate in annual new hire training as a part of the cooperative Salt Lake Fire Academy. As a result, internal training is often placed on the shoulders of station Captains and the already task-saturated training Battalion Chief. **Addressing this understaffed and overstretched finding, our consulting team recommends the formation and appropriate separation of an EMS training and quality division with its own dedicated staff, in addition to adding a second training Captain under the fire training discipline.**

Regarding the individual training needs of the rank and file of the combat firefighters, our consulting team found that **funding and determination/selection for outside training is inconsistent, and in many respects, lacking**. Our consulting team identified through survey results and interviews that training opportunities are often not funded or supported by the Department, and there is no real determinate or priority on what outside training gets funded. Our *Employee Engagement Survey* identified that over 85% of the participants take part in unpaid training for career development. Internally addressing this, **our consulting team recommends a formal process be developed to provide clarity to employees regarding how professional development and supplemental training opportunities are approved and funded**. This includes detailing which opportunities are prioritized, procedures for applying, as well as training priorities, and how elements such as registration fees, travel, lodging, and per diem costs are supported by the Department. Time commitments should also be outlined, specifying when PTO is required, how shift coverage will be arranged, and under what conditions overtime will be approved. This structured approach ensures that training investments are aligned with departmental goals and employee development needs, facilitating effective budgeting and resource allocation.

8.1.6. Incident/Facility Pre-Planning Software

SFD currently does not have incident/facility pre-plan software for responding units to obtain critical information such as building information, hazard identification, fire protection systems, utility controls, and access points. Fire department pre-planning is an essential aspect of fire service operations, involving the proactive assessment and documentation of critical information about buildings, facilities, and potential hazards within a community. This is a critical, yet basic need for effective and safe response to hazardous situations within the City. The Department's *Strategic Plan* outlined the need for a high-hazard pre-plan program with a six-month timeline; this has not come to fruition yet. While the Department does utilize a software to track its fire prevention and inspection processes, hydrant testing, and hazardous materials Tier-II reporting, it has been reported to our consulting team this this platform is not ideal in its capabilities and is not user-friendly in its application. **Addressing this gap, our consulting team recommends that the Department considers switching to a vetted software platform that encompasses all its pre-planning and records management needs while developing a simplified fillable template document that can be either printed or shared on apparatus computers electronically to begin pre-planning efforts.** Ideally, SFD pre-plans should be able to be seamlessly shared with neighboring response agencies in an immediate-during-response fashion, and vice versa.

8.1.7. Policies and Guidelines

SFD currently maintains two separate documents containing all policies for the Department: *Policy Manual* and *Supplemental Policy Manual*. Upon review by our consulting team, **these manuals pose an element of redundancy and confusion, as they contain a collection of over 850 pages of mixed policy and guideline content**. Reflecting upon the differences between policies and guidelines, policies are formalized statements that define the principles, rules, and governing actions & decisions within the organization. They should cover broad issues like personnel management, ethical conduct, and overall governance. These should be designed as objective and binding procedures that provide a framework for activities/actions.

Standard operating guidelines (SOGs) are detailed procedural instructions focusing on specific tasks and situations, such as fire suppression, medical response, and hazardous materials incidents. They are more flexible, allow for situational adjustments based on professional judgment, and are updated frequently to incorporate new techniques, equipment, and staffing. While policies establish overarching rules, SOGs ensure consistency and efficiency in daily response operations.

To mitigate any current redundancies and/or confusion, **our consulting team recommends a complete review and revision of these documents, including the incorporation of a defined separation between administrative policies and operational guidelines**. References such as credentialing criteria from the Center for Public Safety Excellence (CPSE) and Commission on Accreditation of Ambulance Services (CAAS), as well as standards promoted by the National Fire Protection Association (NFPA), should be utilized as a framework to guide this effort.

8.1.8. Future Consolidation

The greater Salt Lake Valley presents itself as a prime area for consolidated department opportunities. This does not in any way indicate that the entire Valley should become one – or even rely on only two – departments. Rather, opportunities exist for many of the Valley's neighboring small-to-medium-sized departments to consider the benefits of consolidated fire protection districts. For example, by joining similar three-to-five station departments together to create a combined department, economy of scale efficiencies may be realized in terms of the reduction of unnecessary duplicated pieces of equipment or apparatus, utilizing a more dynamic approach toward system deployment, and better alignment and delegation of administrative responsibilities through expanded divisions with right-sized disciplines of responsibility. Specifically, **our consulting team sees a viable opportunity for future consolidation between the Sandy and Draper fire departments**. Looking into the long-term future of the SFD, this presents itself as a low-level consideration that should be revisited after other pressing Department needs are addressed. Short-term opportunities, however, do exist for greater shared services alignment within the Valley's existing Metro Fire alliance.

8.2. Consultant's Recommendations

Recommendations outlined within this section reflect the Consultant's Findings from above and are prioritized on a High, Medium, and Low scale. Each recommendation is then benchmarked with a completion timeline of Immediate (0-6 months), Near Future (6-12 months), Short-Term (1-3 years), Long-Term (3-5 years), and Extended (5-10 years). The recommendation number referenced (i.e., R#) is based on its comprehensive task listing found in **SECTION 11.** *and as a result, may appear misnumbered within this section of the Report.*

(R3) Sleep Time and Working Hours

High | Medium | Low || **Immediate** | Near Future | Short-Term | Long-Term | Extended

It is strongly recommended that the City and Department discontinue its current sleep time policy/practice and transition its combat firefighter/operational staff to a 24-hour working day, transitioning away from its current 19.5-hour working with five-hour sleep time (24.5 hours total) approach. This does not indicate that its current three-shift/platoon, 48-hours on/96-hours off shift rotation needs to be adjusted. If this recommendation is not pursued, then it is strongly recommended that the sleep time policy be edited to clearly align with Department of Labor regulation language to eliminate compliance confusion.

(R4) Unit Data Tracking and Report Documentation

High | Medium | Low || **Immediate** | Near Future | Short-Term | Long-Term | Extended

Investigation of documentation practices or software platform data communication issues should be conducted to ensure that proper transport unit documentation occurs to meet ground ambulance data collection or incident data reporting requirements.

(R7) Department Cellular Phones

High | Medium | Low || **Immediate** | Near Future | Short-Term | Long-Term | Extended

The Department should assign official use and dedicated cellular phones to all administrative positions, including one for the on-duty Battalion Chief. The use of personal phones for official business should be prohibited.

(R10) Promotional Process Parameters

High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

A complete revisit of the Department's promotional process is recommended, focusing on process transparency and labor-management collaboration. Additional criteria may also be added around acting roles and their selection/validation processes and decreasing the emphasis on specialty training/credentials. Further consideration should be given to incorporating an independent, third-party assessment/recommendation component in this process. Additionally, further clarity surrounding the Senior Paramedic position/rank is necessary within the Department – either aligning it at/above the Engineer level, or specifically creating a new Lieutenant Paramedic position/title for increased clarity.

(R15) Organizational Structure and Role Delegation

High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

Update the organizational structure of the Department to better define and delegate its administrative chief officer functions through the incorporation of divisions and increased supporting personnel. Our team recommends the addition of five positions over the course of one to three years. This will improve chain of command reporting structures and offer a more robust succession and career development plan for the administrative team. It will also promote efficiencies through improved role delegation, dedicated areas of responsibility, consistent communication pathways through clearly identified sources, and mission-focused combat Battalion Chiefs who can remain operationally cognizant without stretching their time over program-focused needs.

(R16) Training Division Support

High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

Coinciding with a Department restructuring and administrative team expansion, it is recommended that two training divisions exist: one for fire training & standards and a second for EMS training & quality. Each should have their own respective and sufficient staffing to meet the needs of the Department.

(R14) Incident/Facility Pre-Planning Software

High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

Consider switching to a vetted software platform that encompasses the Department's pre-planning and records management needs while developing a simplified fillable template document that can be either printed or shared on apparatus computers electronically to begin pre-planning efforts. Comprehensive software platforms that encompass an all-in-one approach may be considered to consolidate the Department's incident reporting, staffing management, records management, asset and supply management tracking, training/learning management, pre-planning, and fire inspection needs into one source may also prove beneficial.

(R18) Policy and Guideline Revision

High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

A complete review and revision of the *Policy Manual* and *Supplemental Manual* should be initiated. This includes the incorporation of a defined separation between administrative policies and operational guidelines that are focused on eliminating current redundancies and reducing overall page counts. References such as credentialing criteria from the Center for Public Safety Excellence (CPSE) and Commission on Accreditation of Ambulance Services (CAAS), as well as standards promoted by the National Fire Protection Association (NFPA) should be utilized as a framework to guide this effort. It is understood that this will be an extensive project that will take over a year to complete and requires frequent updating and revising, recommended on a three-year interval. Additional effort should be placed on separating and developing regional operational guidelines to promote unified incident operations with collaborating neighboring agencies.

(R19) Outside Professional Development and Training Approval Procedure

High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

A formal process should be outlined to provide clarity to employees on how professional development and supplemental training opportunities are approved and funded. This should include elements such as covered costs and time off.

(R26) Future Consolidation Efforts

High | Medium | **Low** || Immediate | Near Future | Short-Term | **Long-Term** | Extended

Opportunities do exist for the SFD to consolidate with one or more neighboring fire departments and to form a standalone fire protection district in the process. A future feasibility study should be considered between interested departments/communities.

SECTION 9. OPERATIONAL ASSESSMENT

9.1. Consultant's Findings

This section outlines a non-prioritized listing of specific and general findings by our consulting team related to the Scope of Work for this Study, in addition to supplemental findings that were uncovered and are noteworthy to highlight. Key elements and supporting recommendations for each finding have been bolded for easy recognition. Prioritized and timeline-focused recommendations are also forthcoming within this section of the Report.

9.1.1. Ambulance Staffing and Operations

It was observed by our consulting team and noted in conversation that regular ambulance staffing is not only dictated or upheld differently by each on-duty Battalion Chief but that each on-duty ambulance is not staffed with at least one Paramedic 100% of the time. As observed on the specific day it was noted, one of the Department's ambulances was staffed with two EMTs while, instead, each fire apparatus was staffed with at least one Paramedic in order for the unit to maintain its "Medic Engine" status within the dispatching system. The theory explained for this practice indicated that at least every incident within the City would have a Paramedic available for its response (via the Medic Engine) because a fire apparatus typically responds to the majority of EMS incidents within the City – and regionally. Despite the Department having enough Paramedics on-duty during the given shift (which equated to at least three), some Battalion Chiefs choose to staff the ambulances with a dual-EMT crew in order for the Department to maintain its lower-volume specialty unit assignment, such as a "HazMat Engine." **This practice is not recommended by our consulting team.**

An additional topic of discussion with the former Fire Chief revolved around the **concept of utilizing non-firefighter EMTs and/or Paramedics (EMS-only) for ambulance staffing either as a complete operational/staffing shift or as an added/peak option to increase ambulance unit availability**. To start, our consulting team recognizes the positive culture that radiates from the SFD crews and admires this aspect of the Department. In shifting attention toward this very topic, our consulting team approached this concept while on-site and visiting with the crews and received a neutrally positive overall response.

While considering this as a very valid concept in theory, our consulting team's professional experience and national industry insight within such fire departments and environments pose a variety of moderate-to-significant challenges with such operations (listed below and not necessarily in order of significance).

- EMS-only employees face different Fair Labor Standards Act (FLSA) regulations for overtime hours when compared to firefighters (including Firefighter/EMTs and Firefighter/Paramedics). Essentially, EMS-only employees are regulated to a 40-hour workweek schedule whereby any hours worked after 40 hours must be paid at

an overtime rate, while firefighters may work an average of 53 hours before being paid at an overtime rate. Such a difference would create a pay disparity when comparing hourly pay rates amongst employees, who would both be non-exempt in their operational/combat roles and eligible for regular overtime pay.

- The integration of EMS-only employees often presents an opportunity to increase ambulance unit staffing during peak call time hours, which may be beneficial to meet the dynamic call volume demand of the City. For instance, if EMS-only employees are utilized to supplement the current firefighter-staffed ambulances, such peak ambulances may only be staffed and deployed during the daytime (peak) hours of operation and not for all 24 hours of the day. If, under an alternative model, EMS-only employees were utilized to staff all ambulances within the City and Department, an opportunity may exist to staff five ambulances during the daytime and only three ambulances overnight based on identified call volume demand trends. Under such circumstances, the overnight EMS-only employees may also be designated as "awake" crews that are not afforded sleep time, which the firefighters are afforded.
- The chain of command and rank structure within fire departments is often viewed as one of the greatest strengths and recruitment/retention opportunities available to firefighters. When EMS-only employees are introduced into many such departments, however, there is often a lack of the same career path development and growth potential because many departments do not assign corresponding ranks to the EMS-only employees. Even in situations where ranks are assigned, firefighter staff are often given higher ranks to avoid situations where an EMS-only employee may outrank the senior-ranked firefighter on a given scene. Such dynamics – realities – tend to create a culture of animosity, divisiveness, and separation between the crews. While appreciating the positive crew culture that exists within the Department, our consulting team recognizes that the SFD may be one of the rare exceptions where such a co-existing environment could occur.

Considering our consulting team's insight into this practice, **it is not recommended that the SFD pursue this type of staffing model in the near future**. If, however, the Fire Department would consider completely exiting the ambulance service "business," the option for the City to develop its own municipal ambulance service would present itself as a viable option. This, moreover, is not a recommendation by our consulting team as we believe its current fire-based EMS/ambulance transport model is the most effective and efficient option for the City at the moment and given the Department's current staffing and operations. Significant staffing and operational changes would need to occur if the Department ever ceased its ambulance transport services.

9.1.2. Daily Staffing Matrix

The current daily staffing of fire and ambulance apparatus reflects an individual combat Battalion Chief-discretion approach, which ultimately leads to widespread inconsistencies across the three shifts. This practice seemingly disrupts the Department's staffing of Paramedics on ambulances and of credentialed individuals within specialty stations, as an "at will" approach is utilized to move crew members from one station or apparatus to another, without a defined or consistent rationale. To create consistency, **our consulting team recommends the development and enforcement of a daily staffing matrix that outlines which units are staffed, and with how many crew members, as the minimum staffing level is exceeded through the availability of additional budgeted personnel** (Table 9.A.). In this staffing matrix, initial emphasis is placed on adding additional personnel (first) to the Department's Truck, then placing a second ambulance in-service at Station 31, then adding personnel to fire apparatus – starting with ME33 because of its likelihood of having to wait longer time durations for additional responding apparatus to arrive. Consideration may also be given to staffing a second Battalion Chief (acting Battalion Chief or safety officer) unit or redesigning the matrix if the Truck company is moved to Station 33 in the future.

Unit	22 Personnel (Minimum Staffing	23 Personnel	24 Personnel	25 Personnel	26 Personnel	27 Personnel	*28 Personnel	*29 Personnel (Budgeted Staffing)
BC31	1	1	1	1	1	1	1	1
T31	3	4	3	4	4	4	4	4
MA31	2	2	2	2	2	2	2	2
MA31(2)	(Unstaffed)	(Unstaffed)	2	2	2	2	2	2
ME32	3	3	3	3	3	3	4	4
MA32	2	2	2	2	2	2	2	2
ME33	3	3	3	3	4	4	4	4
ME34	3	3	3	3	3	4	4	4
MA34	2	2	2	2	2	2	2	2
ME35	3	3	3	3	3	3	3	4

**This additional staffing amount accounts for our consulting team's recommended increase to the budgeted staffing level for each shift.*

NOTE: MA31(2) indicates the second staffed ambulance at Station 31.

Table 9.A. Recommended SFD Daily Staffing Matrix

9.1.3. Personal Protective Equipment & Uniforms

Typical personal protective equipment (PPE) utilized by SFD combat firefighters includes but is not limited to structural firefighting turnout gear ensembles (i.e., coat, pants, gloves, helmet, hood), brush/wildland firefighting attire, self-contained breathing apparatus (SCBA), traffic vests, eye protection, and EMS related items such as medical gloves, masks, and gowns. NFPA 1970 consolidated many standards into a single document to address PPE needs such as work uniform, structural PPE, SCBA, and personal alert safety systems. PPE is also addressed in many other standards that need to be considered such as NFPA 1977 for Wildland Firefighting PPE. **Our consulting team identified multiple areas that are falling short of full compliance with these NFPA standards, which should be addressed to promote the safety of the firefighters within their all-hazards response environment.**

Areas of PPE deficiencies include:

- Wildland gloves (leather) are not issued
- Extrication gloves are not issued
- Wildland boots are provided as an initial issue item, but are only replaced with uniform allowance money
- Extrication jump-suits are not equally distributed as standard PPE among all firefighters (standardization needed)
- SCBA bottles had not been certified to meet 3-year hydrostatic testing standards (but have since been recertified after our team's on-site visit)
- EMS cleaning supplies are lacking for decontamination of ambulances and equipment
- Regular station uniform distribution and replacement historically has been lacking and often reliant upon a one-time funding approach or personal out-of-pocket financing, rather than being an annually budgeted item (recent FY25 budgeting will address this item)

Recently, the SFD has provided all combat personnel with two sets of turnout gear to facilitate quick cleaning after contamination which is designed to reduce the risk of cancer experienced by firefighters. This practice should be maintained, alongside proper care for all PPE. *NFPA 1851: Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Firefighting* specifies the requirements for proper care and maintenance, including monthly and annual inspections and cleanings. An administrative procedure or SOG should be established to outline this process, including documentation of all inspections, cleanings, and repairs.

Regarding daily/personal uniform items, it has been reported to our consulting team by nearly all Department members that their current uniform supplies are inefficient in meeting their needs and expectations. Considering the 48-hour shift assignments of combat firefighters, branded uniform items (i.e., jackets, polo/button shirts, t-shirts, sweatshirts, winter hats) should be given to all employees within a sufficient quantity and a one-for-one replacement program should be implemented for dispersing and tracking of these items. Additional supplemental personal items (i.e., black belts, black socks, black duty boots, NFPA-compliant pants) should be afforded to each new employee and an annual uniform allowance should be given to each employee for the annual maintenance/replacement of these items. No daily/personal uniform items should be reused by the Department, with the exception of a reserve cache of gently used jackets, and all branded items should be destroyed upon their return/replacement.

As an overview, the City should fully financially support the annual maintenance and initial issue of necessary PPE, branded uniform items, and supplemental uniform items for the SFD.

9.1.4. Dispatch and Communications Operations

SFD is the sole fire department in the Valley that utilizes a different dispatching center when compared to its neighbors. The exception to this would be the Salt Lake City (SLC) Fire Department, which operates its city-based dispatch center – of which Sandy is its only external participant. All other surrounding departments in the Valley are dispatched through the Valley Emergency Communications Center (VECC). It is recognized that the City was part of VECC's system for more than 40 years and moved to SLC intending to enhance its service level and decrease its service costs as a result of increased fee requests from VECC.

Based on feedback provided by the Department's combat firefighters, many indicate that they prefer the SLC dispatching center because of its independent channels with perceived reduced radio traffic. The Department's administrative team, however, recognizes that this local difference in communication practices and resource deployment systems presents significant operational challenges – even potential safety challenges.

As an example, SLC requires human input to utilize the Valley's closest unit response criteria and the use of automatic vehicle locators (AVL). This need for manual intervention, as noted by all surrounding fire chiefs and both dispatch centers, can result in SLC inaccurately recommending the appropriate unit for high acuity calls by recognizing units at their stations rather than their actual locations. The system utilized by VECC affords real-time vehicle locating, rather than presumed in-station vehicle locating when they return to available status.

The use of separate radio channels also has the potential to cause communication issues between agencies. When outside units respond to incidents inside the City of Sandy, they must change radio frequencies and channels to communicate, both on mobile and portable radios during incidents. Similarly, SFD must do the same when responding outside of the City limits. This reliance on human intervention has led to communication challenges, as reported by SFD and surrounding fire department chief officers throughout the course of this Study.

Transitioning back to VECC dispatch (as the SFD used to operate on this system years ago) would be operationally straightforward, however, it would require a financial investment from the City in terms of a likely contract fee increase. Our consulting team also recognizes that such a move may impact the City's police department, as they, too, utilize SLC for their dispatching services. This transition (return) would ultimately eliminate SFD's isolation from the Valley and would foster better communication with surrounding agencies. As a result, **our consulting team strongly recommends this eventual transition to enhance continuity in operations with surrounding agencies and to minimize the potential safety risk that is currently posed through the utilization of two different radio channel platforms**.

9.1.5. Specialty Stations and Teams

The SFD currently proclaims to take an all-hazard approach in its fire, EMS, and emergency response operations with four of its five stations designated as specialty stations. Each station houses equipment and personnel geared for specialty responses in some capacity. What our consulting team has identified, however, is that **the capacity to which the SFD continually trains, equips, staffs, operates, and financially supports these specialties is grossly insufficient to fully operate on such low-frequency, high-acuity incidents**. In essence, the City's financial support does not match the Department's operational interest – or even risk demand.

What the SFD and City need to understand and address about an all-hazards approach is that it doesn't require them to be "everything to everyone all the time." Instead, this approach emphasizes building an operationally flexible framework that can adapt to any event that arises. Despite having specialty-designated personnel, apparatus, and stations, the Department realistically remains completely reliant on its automatic aid agreements in all aspects of specialty incidents, and this is the right course of action for it to maintain.

The SFD is trying to maintain four specialty stations with a limited budget, staffing, and equipment namely out of a justification that its crews want it, or that there's a perceived need for it. As outlined in our consulting team's *Workforce Engagement Survey*, there is a reality expressed by the Department's members that the SFD cannot continue its current multi-specialty approach, and our team agrees with them. Respective of the data and actualized risk, specialty responses compose a small fraction of the Department's incidents,

and that's with a generous lens toward what is actually considered to be a "specialty" incident.

Reflecting upon this, SFD has a lot to gain by reducing the overhead costs associated with trying to maintain all specialties within its operations. The ability to build and maintain one or two well-supported teams would not only help the Department, but also the Valley and possibly the state, simply by immediately providing reliable staffing that can deploy at a moment's notice. Our consulting team observes that the Department is trying to do a lot in terms of specialty programs and services, but none of it is at an exceptional or even safe operating level to fully support the needs of any specialty incident. By re-focusing its time, energy, funding, and resources into one or two risk-justified specialty disciplines, SFD could excel and be a model for other local/regional agencies to mirror.

Based upon the community-unique risks posed within the City, our consulting team recommends the SFD focus its specialty attention on brush/WUI incident response and low-angle rope rescue operations. Specific and sufficient funding, training, equipment, and apparatus dedication for these specialty functions will allow all frontline Engine/Truck apparatus to remain uniform with their carried equipment, while also adapting to carrying minimal general rescue/extrication items based on their statistical demand (i.e., extrication and cribbing equipment on Truck 31 and not on Engine 33). Additional focus may be placed on utilizing the Battalion Chief vehicle to carry minimal-use specialty equipment, as this unit is dispatched to all incidents that require such equipment.

Addressing the other specialties that the SFD will not maintain a specific program for, there is still a benefit to maintain operational competency training levels for all of the Department's combat firefighters within these disciplines, as the Department must still maintain its all-hazards response approach and mitigate the challenges encountered of any incident until sufficient supporting resources arrive. In essence, SFD units and crew members must still be able to manage the first "15 minutes" of any incident while they await specialty resources. Respective to these resources, the Department should collaborate with its neighboring departments – perhaps through its Metro Valley Alliance – to determine which departments will fully specialize in what disciplines (so that others do not need to), while also affording firefighters from all departments to collaboratively train within the disciplines that they still have a personal interest in.

To reiterate, the lack of a designated specialty within the Department does not mean that it should completely abandon training and support its employees' external training in such disciplines. Rather, it means that the Department will not dedicate financial resources to maintaining non-generalized equipment within that discipline (i.e., the SFD should still have struts available for an incident even though it does not specialize in collapse rescue operations). Collaboration with neighboring departments also promotes the development of regional response plans, consistent operating guidelines, and best-practice incident command structures.

Refocusing the Department's current specialty station practices will also allow it to discontinue this criterion for daily staffing practices, as all combat firefighters will be

dedicated to becoming specialized within these limited disciplines in some capacity. While one or two stations may house the equipment and apparatus dedicated for such specialty responses, all personnel will be qualified to operate this equipment and respond at a moment's notice. Based on available space, Station 33 and the new Station 31 appear to be the most logical locations to house such equipment and apparatus.

9.1.6. WUI Standard Operating Guidelines

SFD's policy directed towards the response to wildland or WUI operations is lacking substance and guidance. Currently, the Department's reflecting policy (*312.1 Wildland Operations)* only addresses incident command and notification responsibility; it does not address items such as: definitions specific to wildland operations or WUI; operational items related to scene size-up, resources, company assignments, access points, communications, or safety considerations; or incident specific considerations such as anchor points, watchouts, fuel type, topography, weather impacts, and structure protection requirements.

The National Fire Protection Association advocates for the implementation of SOGs within fire departments to promote consistency and safety during emergency operations. These guidelines are tailored to the needs and circumstances of each department and event, reflecting best practices and industry standards. **Developing and maintaining adequate SOGs is crucial for ensuring the effectiveness and safety of fire department operations.** By establishing and implementing established guidelines, SFD can enhance its response capabilities and mitigate risks during emergencies, ultimately increasing safety for both responders and the citizens of Sandy.

9.1.7. Shift/Station Bidding Process

SFD currently does not have a process for firefighters to move within the Department's landscape other than through a request for transfer through the chain-of-command. Once requested, this request is at the discretion of the Battalion Chief to honor or deny a transfer request. SFD's current dynamic poses a unique situation as four of the five stations are labeled as specialty stations. This limits opportunities for individuals to work anywhere within the City without obtaining an advanced level of training – and even then, it is not guaranteed a move will be possible. Recognizing that the 48-hour shift utilized by the Department places its combat firefighters in an environment where they are "stuck" with their crew for two straight days, this reality can build a great sense of camaraderie amongst the crew members, or it can create a significant sense of animosity and burnout if various crew members do not personally mesh well with one another. Utilizing the Department's current station assignment practice, there may be no way to mitigate personnel movement without an employee putting their personal

reputation on the line and exposing a potential personality conflict, thus, risking further personal human resource and personnel management scrutiny.

To mitigate this, **our consulting team recommends the implementation of an annual shift/station bidding process** that allows employees to pick their shift and station assignment, at a minimum annually, to fill any vacant positions as a result of retirements, etc. Coinciding with the discontinuation of the specialty station concept and stipulation, each station would only be required to have one Captain, one Engineer and two Paramedics (for the stations with staffed ambulances – one of which may be a Senior Paramedic) assigned to them.

From here, an initial "open bid" would occur that essentially wipes the slate clean, making all assigned positions "vacant," including multiple "roving" positions that do not have set daily assignments (but are utilized to fill daily vacancies as they occur). Our team suggests that bid selections should occur first at the Captain rank (in order of rank seniority – or another means agreed upon between the labor and management staff), then followed by the Senior Paramedics, then Engineers, then combat Firefighters. Future bids would occur annually (or more frequent) and would only apply to "vacant" positions due to the prior employee's departure. If one employee chooses to select that "vacant" position, then their prior position now becomes "vacant," and the bidding process restarts within that rank. Subsequent departmentwide "open bids" would only be necessary if a notable event occurred, such as the Truck moving from Station 31 to Station 33, or the addition of a fourth ambulance in the daily staffing matrix.

Like any system, a shift bidding process has its pros and cons:

Pros:

- **Fairness and Transparency:** The shift bid process is often based on seniority, which can be perceived as fair and transparent. It gives all firefighters an equal opportunity to choose shifts based on their tenure within the Department and at a specific rank.
- **Employee Satisfaction:** Allowing firefighters to select shifts can increase job satisfaction and morale. It gives them a sense of control over their work schedules and station selections, leading to higher levels of engagement and retention. As noted in the *Workforce Engagement Survey*, 46% of SFD employees were in favor of a shift bid process while only 19% were not in favor of the possibility.
- **Personalization:** The shift bid process allows firefighters to choose shifts that align with personal preferences, such as family commitments, hobbies, or station location. This flexibility can contribute to a better work-life balance.
- **Operational Efficiency:** By allowing firefighters to bid on preferred shifts, SFD may experience improved attendance and morale, leading to better operational efficiency and teamwork during shifts.

Cons:

- **Seniority Bias:** The shift bid process based on seniority may disadvantage newer firefighters or those with less tenure in the Department. This can lead to a perceived lack of fairness among junior members, even though this is likely taken into consideration with current requests.
- **Limited Shift Availability:** Popular shifts or desirable stations may be in high demand, leading to competition and potential dissatisfaction among firefighters who are unable to secure their preferred shifts. Also, if a shift/station vacancy does not occur, this will result in an extended period where an interested employee will need to wait longer for the next opportunity to occur.
- **Disruption to Team Dynamics:** Shift bidding can disrupt established team dynamics if firefighters frequently change shifts or work with different crew members.
- **Administrative Burden:** Managing the shift bid process can be administratively complex and time-consuming for departmental leadership. It requires careful coordination, communication, and record-keeping to ensure fairness and compliance with departmental policies. Given the size of SFD, this would probably not be a big factor with proper SOG's outlining the process adopted.

While the shift bid process offers benefits such as fairness, employee satisfaction, and flexibility, it also presents challenges related to fairness, team dynamics, and administrative burden. Addressing the specialty station concept that the Department currently employs and reducing its staffing "pigeonholes" would open the possibility for movement, a change of call volume and call type, and a change of scenery to those individuals who choose to move, ultimately determining their own working conditions and crew fate, rather than being assigned it with limited recourse against it. Implementing this process aids in reducing burnout, reducing complacency, and improving job satisfaction, which aligns with the Department's *Strategic Plan* initiative of addressing employee development and satisfaction.

9.1.8. Budgeted Combat Firefighter Staffing

Current budgeted combat firefighter staffing includes 27 personnel, including one Battalion Chief, with a minimum daily staffing of 22 personnel, replicated across three shifts/platoons. This high-budget approach is designed to account for scheduled vacancies that exist during a typical day (i.e., vacation/paid time off) and may also serve as a means to provide adequate shift coverage without needing to cover vacancies with unscheduled overtime expenses. This is a common and recommended practice that many fire departments across the country incorporate, and our consulting team recommends continuing. Irrespective of the addition of any future full-time-staffed apparatus (which would also require additional, separate, budgeted staffing), our team has identified an opportunity for the Department to further increase its budgeted staffing levels to further contain unscheduled overtime expenses and to allow for potential up-staffing opportunities before dedicated staffing is secured to add any new apparatus (such as a fourth full-time ambulance). As a result, **our consulting team recommends that two additional personnel be added to each shift (six total employees) to increase the budgeted staffing level for each shift from 27 personnel to 29 personnel while maintaining the current minimum staffing level of 22 personnel**. Additional consideration should be placed on one of these two additional employees being a combat firefighter rank of Captain or Lieutenant (one rank below a Captain) and be assigned as a "roving" position. Additionally, the consideration of increasing all fire apparatus staffing levels from three crew members to four crew members, along with subsequent budgeted and minimum staffing levels, should be revisited within the next five years as the Department's operational dynamics transition. Our consulting team does not recognize the need to increase the minimum staffing levels on all fire apparatus at present.

9.1.9. Truck Company Relocation to Station 33

SFD's current Truck company placement is at Station 31 based on the coverage area's presence of taller buildings and its perceived victim rescue need. While factoring the call volume of this unit, the experienced structure fire incident demand, the location of nearby truck company assignments, and the significant expense experienced from annual maintenance and up-front purchase costs of such multi-function (quint) aerial/pumper apparatus, **our consulting team has identified a potential opportunity to reduce long-term costs and extend the lifespan of the Department's Truck apparatus by moving this unit to the SFD's lowest call volume station, rather than its highest**.

This relocation, however, is not recommended until a sufficient facility is constructed to house this apparatus, as the current Station 33 facility is not designed for this piece of equipment (and the tight turning radius out of Station 34, or any other station, makes them not ideal either). Considering the Department's current Fire Suppression Rating Schedule

(FSRS) credits earned within the Ladder Service category, it is not anticipated that such a unit's movement will impact this rating in a noticeable negative capacity.

Relocation of this type of apparatus to Station 33 may prove beneficial as its terrain includes longer setbacks of residences from the roadway, which may increase the need for aerial ladder utilization for rescues or aerial master streams. Additionally, the area's increased WUI risk profile which could allow this apparatus to be routinely staffed with four personnel to allow for dynamic crew cross-staffing to respond with both a brush/WUI response unit and the Truck, or with two brush/WUI response units. Such a dynamic cross-staffing approach may also be implemented for EMS calls within this area, too, which could allow for the Truck to remain in service while awaiting additional personnel to complement its staffing needs (rather than relying on only two personnel to functionally operate on a fireground).

9.1.10. Closest Unit Response Practice

The current community coverage and unit response/deployment model utilized in the Valley incorporates an automatic vehicle locator (AVL) and closest-unit response practice for all high-priority fire and medical incidents. While this approach is not necessarily negative in its design, it does, however, result in a fair volume of incidents where SFD units do not respond at all to City incidents, or only one SFD unit may respond with a neighboring department's units in some capacity. **This overall practice raises a valid question for all Valley communities; "Why does another fire department respond to calls within my city?"**

Objectively, City residents pay taxes to fund an acceptable level of service within their own communities and, therefore, it is unfair to receive any form of a lesser-funded or even high-funded service on an automatic basis – especially if there are any inequalities in this give-take relationship. Any form of perceived difference by the residents within each community is, therefore, a situational reality as units from neighboring communities respond to their emergencies and not the units from the community service which they financially support and have oversight over. Also objectively, there are true time-sensitive emergencies that warrant the response of the closest unit regardless of the department to which they belong.

Financially speaking, ambulance service transports typically equate to some form of financial revenue generation and cost recovery. If SFD ambulances aren't dispatched to incidents within their own borders, this revenue may be experienced by other neighboring agencies whose residents are not ultimately paying for the availability of those resources on a 24/7 basis. As a matter of situational comparison, if SFD units are regularly responding to incidents in neighboring communities that result in no ambulance transport being provided, then those responses typically run without any form of revenue or cost recovery generated. Consequently, the City now becomes down a unit because of this practice and potentially loses out on revenue-generating ambulance transports that do occur within the City. To be clear and fair, this same rationale applies to all other communities looking at these

situations from the lens of their own community and services. Nevertheless, closest unit response systems do maintain patient- and resident-/occupancy-oriented benefits overall but do not always lead to financial benefits for the communities that operationally support them.

Given the unclear specifics within the data provided for this Study, it is recommended that the City and Department regularly track and evaluate incoming and outgoing unit responses within this automatic aid system to ensure that the expectations of its residents are met and that the operational realities surrounding this practice are clearly communicated to them. This continued evaluation does not necessarily imply that this practice should be discontinued. Rather, it emphasizes that its details and data should be regularly evaluated to ensure that the system is "working" in a manner that is acceptable for the City's residents. This, over time, may equate to its continuation, acute adjustment, or complete transition away from it.

9.1.11. Interfacility Transfers and Critical Care Paramedicine

Two additional EMS operational topics of discussion were explored by our consulting team throughout this Study: the consideration of the Department entering into the service line of interfacility transfers (IFT) and its advancement to the Critical Care Paramedic level of care. Both create specific nuances that impact the operations of the SFD in different capacities.

IFT operations typically involve ambulances transporting patients from one hospital to another with increased capabilities or transporting a patient from a hospital to their residence (although, additional options to do exist within this service line). Performing such operations, to start, would require additional staffing of ambulances within the Department, as the utilization of the currently staffed ambulances assigned for 9-1-1 response should in no way be routinely utilized to provide this added service. The added cost of providing and maintaining this service, therefore, may not prove to be of financial benefit to the City/Department because of this need. Additionally, entering this service line requires a different operational focus with specific clinical operating guidelines/protocols, documentation practices, billing practices, and care provider mindsets. Locally, this service is already provided by a private-non-profit ambulance service – Gold Cross Ambulance – whose operations are designed around dynamic deployment and staffing to accommodate a mixed 9-1-1 response and IFT service line. Considering these factors, **it is not recommended that the SFD broaden its operations to offer IFT services**.

Advancing to the Critical Care Paramedic level of care does provide some additional clinical benefits, but also brings its own operational challenges. Largely, adopting this level of care as a specialty and not as a broad or required level within the Department creates a level of inconsistency in staffing. While there is a growing interest amongst the members of the SFD to advance to this level of care, there is no clear evidence indicating the Department's need – especially when such services already exist within the Valley and the SFD is not engaged in IFT operations. **Without addressing both factors, it is not recommended that the Department advance its EMS level of care to Critical Care Paramedic in the foreseeable future.**

Additional staffing and support within the areas of EMS training and quality assurance would also be required to incorporate either of these options within the Department's services if chosen to do so. Articulating again, if the Department chooses to engage in IFT operations in the future, additional staffing would be required to maintain the Department's 9-1-1 response service levels. IFT operations should never compromise 9-1-1 operations (except for rare and significant time-sensitive situations).

9.2. Consultant's Recommendations

Recommendations outlined within this section reflect the Consultant's Findings from above and are prioritized on a High, Medium, and Low scale. Each recommendation is then benchmarked with a completion timeline of Immediate (0-6 months), Near Future (6-12 months), Short-Term (1-3 years), Long-Term (3-5 years), and Extended (5-10 years). The recommendation number referenced (i.e., R#) is based on its comprehensive task listing found in **SECTION 11.** *and as a result, may appear misnumbered within this section of the Report.*

(R1) Ambulance Staffing with a Paramedic

High | Medium | Low || **Immediate** | Near Future | Short-Term | Long-Term | Extended

It is recommended that an ambulance staffing matrix be developed, and an ambulance staffing practice/policy be instituted whereby all SFD ambulances are staffed with at least one Paramedic 100% of the time, superseding all other Department staffing needs. This Paramedic may be of any combat firefighter rank.

(R2) Defined Staffing Matrix

High | Medium | Low || **Immediate** | Near Future | Short-Term | Long-Term | Extended

The Department should immediately consider developing a defined and consistent staffing matrix that is consistently utilized across all shifts and combat Battalion Chiefs. This staffing matrix should outline which apparatus any additional budgeted personnel above the minimum staffing level are assigned to for any full or partial shift duration.

(R5) Standardization, Distribution, and Maintenance of PPE

High | Medium | Low || **Immediate** | Near Future | Short-Term | Long-Term | Extended

The City should fully financially support the annual maintenance and initial issue of necessary PPE for the Department's apparatus and employees.

(R6) Uniform Issue and Allowance

High | Medium | Low || **Immediate** | Near Future | Short-Term | Long-Term | Extended

Sufficient annual budget funding should be allocated for the issuance of initial uniform items to all new employees, the maintenance of a one-for-one uniform replacement program for all branded items, and the maintenance of a uniform allowance fund for all employees to utilize for supplemental and personal uniform items. No daily/personal uniform items should be reused by the Department (with the exception of a reserve cache of gently used jackets) and all branded items should be destroyed upon their return/replacement.

(R17) Transition Unit Dispatching to VECC

High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

Although additional costs may result, it is recommended that the SFD consider a transition from current dispatching services with Salt Lake City to the Valley Emergency Communications Center (VECC) largely to promote local/adjoining department consistency, communications efficiency, and to reduce potential safety risks associated with the utilization of different local dispatching services. Such a recommendation may also have implications for the City's police department and other non-emergency services, which should also be considered by the City when making this transition.

(R28) Maintain Current Fire-Based EMS/Ambulance Service Model

High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

It is recommended that the City and Department maintain the current fire-based EMS/ambulance operational model for the foreseeable future. Future revisiting of this model would be warranted if the Department merged or consolidated with another fire department, or if a regional special taxing district is formed specifically to support standalone EMS agency operations.

(R11) Re-focused Specialty Team Approach

High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

SFD should re-focus its specialty program attention on brush/WUI incident response and low-angle rope rescue operations, training all combat firefighters within these disciplines in some capacity. Coinciding with this, the Department should collaborate with its neighboring departments to build a mutually supporting specialty response system whereby each department maintains its own (dedicated) specialty, while its neighbors support it with other specialty disciplines as requested/needed. Within the SFD's approach, all specialty equipment and apparatus should be strategically located at Station 33 and the new Station 31 based on available space capabilities. Additional consideration should be emphasized toward placing unique or niche specialty items on the Battalion Chief vehicle, as this unit responds to all specialty incidents. The current practice of unique and individualized specialty stations and fire apparatus within the SFD should be discontinued, but an all-hazards response approach by the Department should be maintained.

(R12) Ambulance Rotation and Paramedic Ride Time

High | **Medium** | Low || Immediate | **Near Future** | Short-Term | Long-Term | Extended

An ambulance rotation policy should be instituted that allows all combat firefighters (EMTs/Paramedics) the opportunity to rotate off of an ambulance and be assigned to a fire apparatus on a regular basis. Such a program would be intended to rotate all Paramedics (regardless of rank) onto an ambulance at some point throughout the year, increase skills maintenance bidirectionally for both fire and EMS disciplines, and serve as a mandatory means of reprieve from only being assigned to an ambulance unit. This rotation policy should apply to EMTs and Paramedics equally and outline that no employee should be assigned to an ambulance unit for greater than six consecutive 24-hour time periods without at least two 24-hour periods assigned to fire suppression unit. Unless minimum staffing levels dictate otherwise, this rotation program should be upheld, but also be left to the on-duty Battalion Chief's discretion to maintain proper daily staffing without the need to utilize overtime staff just to maintain the integrity of the rotation policy. In conjunction with this, strong consideration should also be placed on instituting a "Paramedic ride time" requirement whereby all Paramedics within the combat firefighter ranks are required to be assigned to an ambulance for a minimum of six (recommended minimum of 12) 24-hour shift periods annually in an effort to maintain minimal skill proficiency and documentation expectations. Simply "riding in" with the ambulance on a call should not be accounted with the same weight as being assigned to the ambulance unit as a part of its legally documented crew. This will also aid the Department in maintaining its ambulance rotation policy's integrity.

(R13) WUI Standard Operating Guidelines

High | **Medium** | Low || Immediate | **Near Future** | Short-Term | Long-Term | Extended

A complete revision and updating of the Department's current wildland response, brush fire, and wildland-urban interface standard operating guidelines is recommended to better comply with applicable NFPA standards. Further collaboration with neighboring departments with respect to their own, and regionally focused, operating guidelines is recommended to promote operational consistency by all local responding entities. Additional review of respective state/federal response plans for WUI incidents within the City/Valley is also warranted by the Department.

(R20) Incorporate Shift/Station Bid & Assignment Process

High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

The Department should consider the development of a shift/station bidding process for all combat firefighters that follows a seniority-through-rank approach, ultimately resulting in either a station assignment or "roving" assignment for all personnel based on their selection. This process may incorporate additional criteria and parameters to assure adequate daily staffing, such as the need for at least two Paramedics assigned to stations with ambulances or the need for specialty-credentialed personnel to be assigned to such stations (if specialty stations remain in effect). The parameters surrounding this process should be collaboratively designed and mutually enforced by labor and management representatives.

(R22) Increase Budgeted Staffing Levels

High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

The Department should consider the addition of two combat firefighter positions to the budgeted daily staffing levels per shift (six total positions), with one position being considered at the Lieutenant or Captain rank and being designated as a "roving" position. This would increase the daily budgeted staffing level to 29 positions (including one Battalion Chief) but would maintain a minimum daily staffing level of 22 personnel. Assignments of all combat personnel should coincide with an adopted station or "roving" assignment.

(R24) Truck Company Relocation to Station 33

High | Medium | **Low** || Immediate | Near Future | **Short-Term** | Long-Term | Extended

Relocation of the SFD's Truck apparatus from Station 31 to Station 33 may reduce the vehicle's long-term costs and extend its lifespan by being moved from the Department's highest call volume station to its lowest call volume station. This relocation, however, is not recommended until a sufficient facility is constructed to house this apparatus, as the current Station 33 facility is not designed for this vehicle. Future dynamic staffing opportunities should also be considered with this unit, including an increase of its daily minimum staffing to four crew members and the unit's cross-staffing with one or two brush/WUI response units based on incident types.

(R25) Closest Unit Response Practice

High | Medium | **Low** || Immediate | Near Future | **Short-Term** | Long-Term | Extended

The City and Department should regularly track and evaluate incoming and outgoing unit responses within its automatic aid system and closest unit response practice to ensure that the expectations of its residents are met and that the operational realities surrounding this practice are clearly communicated to them. This continued evaluation does not necessarily imply that this practice should be discontinued. Rather, it emphasizes that its details and data should be regularly evaluated to ensure that the system is "working" in a manner that is acceptable for the City's residents. This, over time, may equate to its continuation, acute adjustment, or complete transition away from it.

(R27) Future Fire Apparatus Staffing Level Increase

High | Medium | **Low** || Immediate | Near Future | Short-Term | **Long-Term** | Extended

Future revisiting and consideration should be placed on increasing all fire apparatus staffing levels from three crew members to four crew members (along with subsequent budgeted and minimum staffing levels) within the next five years as the Department's operational dynamics transition. Factors that may drive incremental or across-the-board staffing level increases should include increased neighboring department staffing levels, any transition away from a fire-based EMS/ambulance service model, an increased community fire risk due to target hazard expansion or notable fire incident demand, and/or the implementation of new standards or regulations that impact apparatus staffing levels.

(R29) Interfacility Transfers and Critical Care Paramedicine Non-Recommendation

High | Medium | **Low** || Immediate | Near Future | Short-Term | Long-Term | **Extended**

It is not currently recommended that the Department engage in routine interfacility transfer (IFT) services of patients from one facility to another. It is also determined to be unnecessary for the Department to consider an upgrade of its medical scope of practice to the Critical Care Paramedic level.

SECTION 10. CAPITAL ASSESSMENT

10.1. Consultant's Findings

This section outlines a non-prioritized listing of specific and general findings by our consulting team related to the Scope of Work for this Study, in addition to supplemental findings that were uncovered and are noteworthy to highlight. Key elements and supporting recommendations for each finding have been bolded for easy recognition. Prioritized and timeline-focused recommendations are also forthcoming within this section of the Report.

10.1.1. Capital Budgeting and Planning

Overwhelmingly expressed and noticed by our consulting team was the City's longstanding conservative and critically lean capital budgeting and planning process. All levels of City/Department engagement with our team talked about the City's "one time" funding, "top three" budget item, general conservatism, general interest in not raising taxes, and commonly felt a disconnect in understanding/communications between the stakeholder groups of the Department, City Administration, and the City Council/Mayor's Office. The general capital state of the SFD can be summarized as being years behind the curve as a result of insufficient funding and capital improvements related to some of its fire stations and fire apparatus. As a result, **rather significant capital improvements will be necessary over the course of the next 10 years to right the course of the Department in order for it to operate efficiently, not just minimally**.

Future capital planning and investment will likely need to be supported through increased tax revenues unless significant grant opportunities can be capitalized to fund necessary improvements The funding to maintain such improvements also needs to be considered along with this. Coinciding with another consideration for the City and Department is the future consolidation/merger of its services with a neighboring community and fire department. Accomplishing this would open the opportunity for a special taxing district (fire protection district) to be formed, thereby removing the Department from the City's direct general budget. **If future tax increases cannot be obtained directly by the City to support the capital improvement and long-term maintenance needs of the Department, it is recommended that consideration be given to the separation of the Fire Department from the City and its incorporation as a standalone or consolidated fire protection district.**

Future capital planning through a living Capital Improvement Plan (CIP) should be conducted and focus its attention on initiatives that support safety, compliance, longevity use, return on investment, service enhancement, employee enhancement, and *Strategic Plan* follow-through.

The formation and utilization of an EMS Enterprise Fund should also be considered by the City as a means to dedicate funding for the continued maintenance of the Department's EMS operations. Within this fund, all (or a large

portion) of the SFD's revenue generated through ambulance transport services could be dedicated toward the capital and operational needs of this service, including annual ambulance purchasing, regular cot/stretcher and cardiac monitor maintenance, and replacement, durable and disposable equipment supply chain management, and station construction to account for dedicated space for ambulances and equipment decontamination needs.

10.1.2. Fleet Summary

Our consulting team conducted a comprehensive assessment of the Department's fleet covering mileage, maintenance costs, and the APWA life condition of each apparatus. **Overall, the fleet is generalized as being in poor condition and immediate planning is necessary for its sustainability.** Fire and EMS apparatus build times are currently taking two-to-three years from purchase to delivery and have been steadily increasing in cost between 20-30% annually for various reasons. SFD's current fleet condition is not sufficient to maintain service for the foreseeable future without a substantial increase in maintenance costs or a significant shift in its deployment model (which would have significant unintended impacts that stretch beyond the City and Department – which are not recommended). **It is a priority to develop a plan for selling ancillary and older reserve fleet vehicles, followed by a master plan for purchasing new frontline apparatus to ensure continued service quality and operational efficiency.**

Apparatus identified that could most likely be sold as soon as practical are:

- Heavy Rescue (Asset #0026)
- Haz-Mat 35 (Asset #0023)
- Haz-Mat Decon Trailer (Asset #0006)
- Reserve Ladder (Asset #0027)
- Reserve Engines (Asset #0024 and #0038)
- Reserve Ambulance (Asset #0002)

By reducing this inventory and reducing the liability of their cost and condition (through selling or trade-in opportunities), the SFD generates start-up revenue to begin the funding of new frontline fire apparatus. To manage and reduce the costs associated with purchasing new fire apparatus, SFD can implement several strategic measures such as bulk purchasing through cooperative agreements with neighboring departments, exploring grants and funding opportunities (such as the Assistance to Firefighters Grant Program – AFG – and Safe Streets and Roadways for All – SS4A), apparatus leasing and financing to spread out costs, and refurbishing existing vehicles and remounting ambulances onto new chassis to

extend the service life of current apparatus at a fraction of the cost of new purchases. Standardizing fleet specifications and limiting customization can also reduce expenses. Strengthening local mutual aid agreements and sharing specialized equipment with nearby departments can further optimize resources without duplicating efforts.

Using competitive bidding processes and considering the total cost of ownership, including maintenance and operational costs, can ensure the most cost-effective purchasing decisions. Respective to apparatus types, future consideration should be placed on Truck (aerial/quint apparatus) with dual-axles and without affixed buckets (like the current Reserve Truck); not single-axle apparatus with affixed buckets or tiller (tractor-trailer type) aerial apparatus. Relocating this type of apparatus to a lower-volume station can also reduce its wear & tear, thus increasing its longevity.

Incorporating a regular apparatus (particularly engines and ambulances) rotation process can also extend a vehicle's lifespan by theoretically "evening out" its wear & tear by rotating it around to different stations every few years, rather than staying at one designated station for the duration of its frontline existence.

General apparatus lifespans and replacement plans should consist of the following:

- **Ambulance:** 5 years frontline plus 2 years reserve; 1 new unit each 1-2 years
- **Engine:** 15 years frontline plus 5 years reserve; 1 new unit every 3 years
- **Truck:** 15 years frontline plus 5 years reserve; 1 new unit every 12-15 years

10.1.3. Reserve Apparatus Summary

SFD's reserve apparatus play a crucial role in ensuring continuous operational readiness and reliability of emergency services. Reserve apparatus are backup vehicles and equipment that can be deployed when frontline units are out of service due to maintenance, repair, or during large-scale emergencies. **Ideally, all reserve apparatus should be supported as "turnkey" apparatus that are 100% stocked, 100% of the time.** Minimal equipment should need to be added or moved from one apparatus to another in order to make a reserve apparatus functional. This approach allows for immediate up-staffing during long-duration incidents, special events, or disaster situations where such apparatus are needed for immediate deployment.

Management and maintenance are just as important with reserve apparatus as with frontline engines, trucks, and ambulances. Reserve apparatus also play a role in ISO evaluation for continuity of operations with engines and trucks. All reserve apparatus should undergo regular inspection and maintenance and be housed appropriately in climate-controlled environments to prevent deterioration of the apparatus as well as the equipment stored inside.

During our consulting team's on-site visit, it was noted that an ambulance (MA35) was stored outside of the apparatus bay and in the elements, with some compartments unlockable and with medical supplies stored inside. **This practice should be discontinued immediately.** This practice has been in place to accommodate the wants of the station's crew to drive its engine through the apparatus bay, rather than to have to back it in, as the station is located on a busy roadway and the ambulance needs to be placed behind the engine within the bay to accommodate its parking. While this rationale is understood, a better practice would be to leave the ambulance in the bay but facing forward (rather than backward), allowing the station's crew to drive the ambulance around the station when the engine returned – instead of pulling out of the bay and backing it back in. Another alternative to this practice would be to park the unused haz-mat decon trailer outside, freeing bay space and allowing the ambulance to be forward-facing with the haz-mat unit located behind it. Additional future alternatives may include the removal of this ambulance from Station 35 and relocating it to the new Station 31, and/or removing the haz-mat apparatus from the station completely.

Table 10.A. details a recap from prior content within this Report by isolating just the reserve apparatus for review of their current condition. Currently, SFD has an insufficient reserve fleet to help maintain operations, with four apparatus needing replacement and the other two needing replacement very soon. Replenishing the frontline apparatus will allow these vehicles to be sold off and replaced with the current frontline apparatus transitioning into reserve status.

In total, it is recommended that the Department maintain a reserve fleet of the following units to complement its frontline fleet:

- Ambulances: 3 reserve units, fully stocked
- Engines: 1-2 reserve units, fully stocked
- Trucks: 1 reserve unit, fully stocked (a Truck may also function as a reserve engine)
- Battalion Chief Vehicles: 1 reserve unit, fully stocked

Unit #	Asset #	Status	Year	Miles	AVG Mi/Yr	Purchase Cost	Total Maint. Costs	AVG Maint./Yr Costs	APWA Rating
R-ENG	0024	Training ONLY	2004	123,556	*6,178*	$423,970	$259,645	*$12,982*	20
R-ENG	0037	Reserve	2006	137,345	*7,630*	$489,617	$250,138	*$13,897*	18
R-ENG	0038	Reserve	2010	133,907	*9,565*	$389,066	$223,146	*$15,939*	20
R-Truck	0027	Reserve	1999	108,826	*4,353*	$658,912	$492,987	*$19,719*	23
MA35	0047	Front	2019	24,613	*4,923*	$47,514	$53,569	*$10,714*	17
R-AMB	0002	Reserve	2009	140,930	*9,395*	$156,782	$104,007	*$6,934*	20

1-6 Excellent 7-11 Good 12-18 Consider Replacement 19-25 Needs Replacement

Table 10.A. Fleet Details for SFD Reserve Apparatus

10.1.4. Station Summary

Our consulting team conducted a comprehensive assessment of all capital structures covering operational use, physical state, safety, apparatus/storage space, amenities, and access/security. **Overall, the Department is in good condition with its station facilities, particularly with the replacement of Station 31 happening, but also recognizing that this improvement is years behind where it should have been.** This new station will enhance operational capabilities and provide modern amenities and improved safety features. However, planning for future sustainability is essential. **Stations 33 (within three years) and 34 (within three to seven years) should be prioritized for replacement based on their current functionality and accommodation.** Strategic planning and budgeting will be necessary to ensure these upgrades are completed, maintaining the department's high standards of service and safety.

10.2. Consultant's Recommendations

Recommendations outlined within this section reflect the Consultant's Findings from above and are prioritized on a High, Medium, and Low scale. Each recommendation is then benchmarked with a completion timeline of Immediate (0-6 months), Near Future (6-12 months), Short-Term (1-3 years), Long-Term (3-5 years), and Extended (5-10 years). The recommendation number referenced (i.e., R#) is based on its comprehensive task listing found in **SECTION 11.** *and as a result, may appear misnumbered within this section of the Report.*

(R8) Capital Planning

High | Medium | Low || Immediate | **Near Future** | Short-Term | Long-Term | Extended

Capital planning and supportive tax revenue increases should be emphasized by the City to ensure that the Department has the necessary operational equipment and resources to respond effectively to emergency incidents and maintain public safety. A supporting Capital Improvement Plan (CIP) should be developed to encompass various projects, including the replacement of firefighting and emergency medical equipment, upgrades to communications systems, and the acquisition of large capital items such as fire apparatus and fire station construction. Additional emphasis may be placed on acquiring grant funding to support generated tax revenues to maintain capital improvement.

(R9) Apparatus Replacement

High | Medium | Low || Immediate | **Near Future** | Short-Term | Long-Term | Extended

Attention should be directed toward the development and long-term adherence to an apparatus replacement plan. Immediate planning should begin to account for the replacement of some of the Department's existing fleet, while subsequent and reoccurring replacement should be conducted to prepare for the complete replacement of its entire frontline fleet over the course of the next 10 years.

(R21) EMS Enterprise Fund

High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

Consideration should be given toward the development and dedication of an EMS Enterprise Fund geared toward supporting the long-term capital funding needs of maintaining ambulance transport services within the City/Department.

(R23) Fire Station Replacement

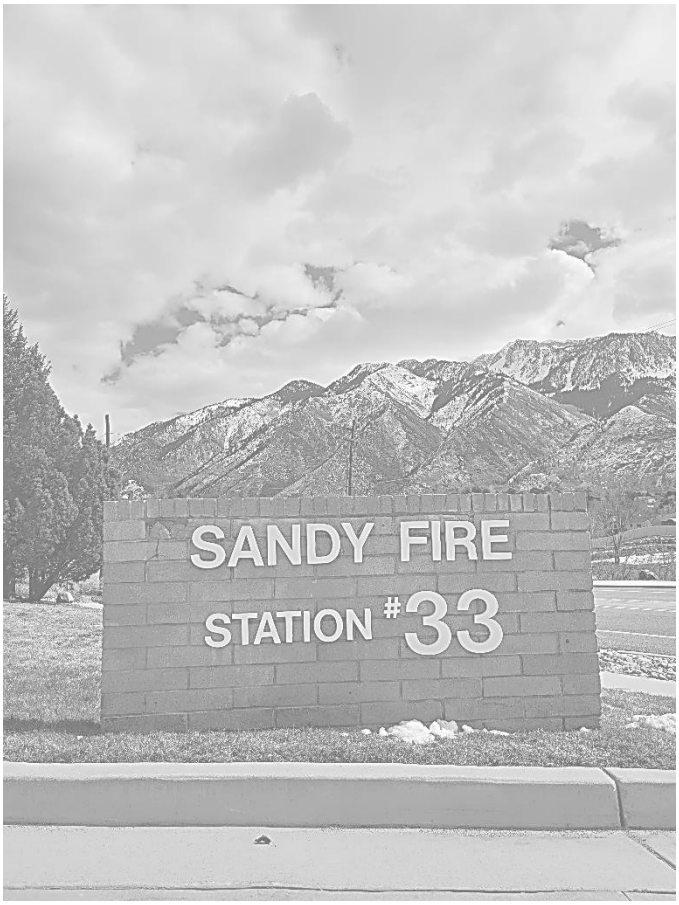
High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

Future construction of a new Station 33 should be considered (short-term), with Station 34 (long-term) following. It is also recommended that the Department maintain its current five-station system to comply with relevant NFPA response standards.

(R30) Fire Protection District

High | Medium | **Low** || Immediate | Near Future | Short-Term | Long-Term | **Extended**

If future tax increases cannot be obtained directly by the City to support the capital improvement and long-term maintenance needs of the Department, it is recommended that consideration be given toward the separation of the Fire Department from the City and its incorporation as a standalone or consolidated fire protection district.



SECTION 11. STRATEGIC & MASTER PLAN

11.1. Strategic Plan Alignment

Our consulting team reviewed the Strategic Plan and grouped similar initiatives into respective categories (Administrative, Operational, and Capital); below are the listings:

Administrative

- 2.1 – Continue to seek grant funding opportunities
- 2.2 – Continue to share resources with Salt Lake Valley Alliance
- 2.3 – Ensure accurate budget predictions are submitted annually
- 2.4 – Ensure judicious spending
- 3.4 – Apply for grant funding pertaining to House Bill 23
- 6.1 – Focus training for employee promotion and career development
- 6.2 – Employee recruitment and retention

The Department is successfully meeting many of its current administrative objectives, however, objectives 2.1 through 2.4 are primarily routine and lack the ambition necessary to comprehensively address the community's evolving needs and challenges. This conservative approach may stem from several constraints highlighted in the Report, including a shortage of administrative personnel to support more ambitious initiatives and the reliance on a "one-time purchasing money" strategy rather than a strategically planned budget. Addressing these limitations is crucial for enhancing the Department's responsiveness and effectiveness in the future. Objectives 3.4 through 6.2 are realistic and have measurable tasks that would improve internal development and satisfaction, as well as promote future employment within the Department.

Overall, our impression is that the Department is progressing with the administrative initiatives but encouraging the next strategic plan to grow with ambition and include accountability including the assignment of a responsible party for the objective and routine updates.

Operational

- 1.1 – Staffing for all heavy apparatus will meet the standards of 3-4 personnel
- 1.2 – Ensure dispatch programs and systems are functioning properly
- 1.3 – Utilize high-hazard preplan program for apparatus response
- 1.4 – Complete inspections of all business structure annually
- 1.5 – Fire investigations program operating and actively involved with fire incidents
- 3.1 – Mental health and education programs available to all members
- 3.2 – Annual physical examinations for all sworn personnel
- 3.3 – Support Critical Incident Stress Management (CISM) programs
- 4.1 – Maintain the current community outreach
- 4.2 – Ready, Set, Go program implementation
- 4.3 – Community Wildland Preparedness Program

The Department is successfully meeting many of its current operational objectives, although a few are falling short in terms of implementation or ambition. Notably, objective 1.3, which had a six-month timeline for completion set back in 2020, has seen no progress. In contrast, objective 1.1 represents the Department's most significant progressive achievement and is highly commendable. Goals 1.2, 1.4, 1.5, and 3.2 are not so much strategic initiatives as they are more normal organizational functions. The remaining objectives are solid, with measurable tasks that support the Department's vision and mission effectively.

Capital

- 5.1 – Relocation and building of Station 31
- 5.2 – Apparatus replacement

Our consulting team understands the difficulties the Department faces with capital budgeting in the strategic planning process. Both objectives are ambitious and essential for SFD to continue effective operations in the community. The relocation and construction of the new Station 31 are currently making great progress and will significantly benefit both the firefighters and the community. Objective 5.2 is relevant but represents just the initial steps needed to improve the Department's fleet. We recommend that these objectives be incorporated into a separate Capital Improvement Program, which would address all capital needs for SFD over a ten-year period.

11.2. Master Plan Vision

11.2.1. Immediate Time Period (0-6 Months)

The general focus within the immediate time period is directed toward achievable budget and process changes that enhance safety, consistency, and structure within the Department. Each of these recommendations requires minimal work while all are, coincidentally, rated high in terms of their prioritization. Many require minimal overall financial investments, while the transition from the Department's current sleep time policy and working hours to a straightforward 24-hour working hour structure may have financial impacts that could impact the Department's overall budget. Without an extensive day-by-day analysis, this cost cannot be determined by our consulting team at present.

(R1) Ambulance Staffing with a Paramedic
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R2) Defined Staffing Matrix
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R3) Sleep Time and Working Hours
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R4) Unit Data Tracking and Report Documentation
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R5) Standardization, Distribution, and Maintenance of PPE
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R6) Uniform Issue and Allowance
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R7) Department Cellular Phones
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

11.2.2. Near Future Time Period (6-12 Months)

Near-future recommendations focus on the formal implementation of capital planning, addressing apparatus replacement needs, and considering internal operational process shifts away from the Department's current emphasis on its multiple specialty programs and narrowing toward one or two. Supporting promotional and daily staffing concepts are also introduced to promote workforce optimization and transparent processes. Anticipated start-up costs to begin these initiatives – particularly addressing initial apparatus replacement needs – are anticipated to equate to approximately $1-1.5 million. Ongoing capital expenses to account for apparatus replacement needs will vary from $500,000 to $2 million annually.

(R8) Capital Planning
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R9) Apparatus Replacement
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R10) Promotional Process Parameters
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R11) Re-focused Specialty Team Approach
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R12) Ambulance Rotation and Paramedic Ride Time
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R13) WUI Standard Operating Guidelines
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

(R14) Incident/Facility Pre-Planning Software
High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | Extended

11.2.3. Short-Term Time Period (1-3 Years)

Short-term enhancements for the Department begin with the need to address its light administrative staffing levels and policy updates, followed by an operational shift to transition its dispatching services to a new entity and beginning to address daily staffing needs. Later elements address future fire station replacement needs. Overall financial impacts from this section include staffing increases that will result in approximately $1.5-2 million in increased annual personnel expenses, in addition to $10+ million toward building a new fire station (Station 33; subject to variable facility design and construction costs). Dedicated funding through an EMS Enterprise Fund may serve as a means to defray some of the Department's capital requests from the City, while also decreasing the available general fund money available to fund other City needs and initiatives.

(R15) Organizational Structure and Role Delegation
High | Medium | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R16) Training Division Support
High | Medium | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R17) Transition Unit Dispatching to VECC
High | Medium | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R18) Policy and Guideline Revision
High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R19) Outside Professional Development and Training Approval Procedure
High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R20) Incorporate Shift/Station Bid & Assignment Process
High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R21) EMS Enterprise Fund
High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R22) Increase Budgeted Staffing Levels
High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R23) Fire Station Replacement
High | **Medium** | Low || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R24) Truck Company Relocation to Station 33
High | Medium | **Low** || Immediate | Near Future | **Short-Term** | Long-Term | Extended

(R25) Closest Unit Response Practice
High | Medium | **Low** || Immediate | Near Future | **Short-Term** | Long-Term | Extended

11.2.4. Long-Term Time Period (3-5 Years)

Many of the long-term needs of the Department surround the need for continued capital planning and growth in terms of regular apparatus replacement and station updating. Beyond these efforts, future organizational opportunities exist in the form of consolidation and considering gradual fire apparatus staffing increases. Neither of these items, moreover, require immediate action and are intended to be revisited considerations as the Department evolves.

(R26) Future Consolidation Efforts

High | Medium | **Low** || Immediate | Near Future | Short-Term | **Long-Term** | Extended

(R27) Future Fire Apparatus Staffing Level Increase

High | Medium | **Low** || Immediate | Near Future | Short-Term | **Long-Term** | Extended

11.2.5. Extended Time Period (5-10 Years)

Looking at the extended time period for the Department, many of our consulting team's recommendations reflect the continuation of its current organizational model, while still anticipating potential opportunities for system enhancement. Costs related to the start-up or initiation of these items are non-issues at the moment.

(R28) Maintain Current Fire-Based EMS/Ambulance Service Model

High | Medium | Low || Immediate | Near Future | Short-Term | Long-Term | **Extended**

(R29) Interfacility Transfers and Critical Care Paramedicine Non-Recommendation

High | Medium | **Low** || Immediate | Near Future | Short-Term | Long-Term | **Extended**

(R30) Fire Protection District

High | Medium | **Low** || Immediate | Near Future | Short-Term | Long-Term | **Extended**

APPENDIX

Appendix A. Recommendations Listing

Outlined below is a task-oriented recommendations listing outlined by our consulting team for the City and Department to reference. These numbered recommendations are listed first by their designated time period, followed by their prioritization within that time period.

Immediate

(R1) Ambulance Staffing with a Paramedic
High | Medium | Low

(R2) Defined Staffing Matrix
High | Medium | Low

(R3) Sleep Time and Working Hours
High | Medium | Low

(R4) Unit Data Tracking and Report Documentation
High | Medium | Low

(R5) Standardization, Distribution, and Maintenance of PPE
High | Medium | Low

(R6) Uniform Issue and Allowance
High | Medium | Low

(R7) Department Cellular Phones
High | Medium | Low

Near Future

(R8) Capital Planning
High | Medium | Low

(R9) Apparatus Replacement
High | Medium | Low

(R10) Promotional Process Parameters
High | Medium | Low

(R11) Re-focused Specialty Team Approach
High | Medium | Low

(R12) Ambulance Rotation and Paramedic Ride Time
High | Medium | Low

(R13) WUI Standard Operating Guidelines
High | Medium | Low

(R14) Incident/Facility Pre-Planning Software
High | Medium | Low

Short-Term

(R15) Organizational Structure and Role Delegation
High | Medium | Low

(R16) Training Division Support
High | Medium | Low

(R17) Transition Unit Dispatching to VECC
High | Medium | Low

(R18) Policy and Guideline Revision
High | Medium | Low

(R19) Outside Professional Development and Training Approval Procedure
High | Medium | Low

(R20) Incorporate Shift/Station Bid & Assignment Process
High | Medium | Low

(R21) EMS Enterprise Fund
High | Medium | Low

(R22) Increase Budgeted Staffing Levels
High | Medium | Low

(R23) Fire Station Replacement
High | Medium | Low

(R24) Truck Company Relocation to Station 33
High | Medium | Low

(R25) Closest Unit Response Practice
High | Medium | Low

Long-Term

(R26) Future Consolidation Efforts
High | Medium | Low

(R27) Future Fire Apparatus Staffing Level Increase
High | Medium | Low

Extended

(R28) Maintain Current Fire-Based EMS/Ambulance Service Model
High | Medium | Low

(R29) Interfacility Transfers and Critical Care Paramedicine Non-Recommendation
High | Medium | Low

(R30) Fire Protection District
High | Medium | Low

Appendix B. References

All citations are noted within the Report with superscript numerical references. Any content, data, or images not cited are items directly obtained by our consulting team or were provided by the client.

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