2025
SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY
PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

San Francisco Municipal Transportation Agency
One South Van Ness Avenue
San Francisco, CA 94103

The 2025 San Francisco Municipal Transportation Agency Safety Plan (PTASP) was updated, reviewed, and approved on April 1, 2025, by staff and frontline employee representation from the Joint Labor and Management Safety Committee (JLMS). For all those subject matter experts who reviewed the draft PTASP and provided comments, recommendations, and suggestions, we extend our deepest gratitude. See table below for the JLMS membership at the time of approval.

SFMTA Management Membership **Management Chair*	**Frontline Transit Worker Membership** **Frontline Chair*
Primary Members: 1. *Melvyn Henry (Safety) 2. Lupita Ibarra (Operations) 3. Sean Kennedy (Planning, Scheduling, Safety) 4. Michael Henry (Maintenance) 5. Tony Henderson (Traffic Engineering) 6. Teresa Scism (Security)	**Primary Members:** 1. *Rafael Cabrera (Operator-250A) 2. David Gunter (Operator-250A) 3. Ronald Mitchell (Operator/JLMB-250A) 4. Herman Morales (Proof of Payment-250A) 5. Terrence Hall (Local 250A Executive Board Member) 6. Alfredo Gonzalez (Automotive Service Worker-250A)
Alternate Members: 1. Ken Anderson (Safety) 2. Lanair Haynes (Operations) 3. Emily Williams (Transit) 4. Emmanuel (Manny) Enriquez (Maintenance) 5. Darcie Alaba (Traffic Engineering) 6. Kim Burrus (Security)	**Alternate Members:** 1. Aleena Galloway (Operator/JLMB-250A) 2. Raymone Garner (Operator-250A) 3. Julio Zamudio (Operator-250A) 4. Walter Cortez (Operator-250A) 5. Giselle Mahan (Operator-250A)

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GENERAL

Revision History

Version	Notes
Version 0	April 22, 2020 PTASP developed by the Safety Division in collaboration with SFMTA management and consultation with CPUC staff and PTASP Technical Advisory Center.
Version 1.0	2023 Update of the PTASP includes the Bipartisan Infrastructure Law required changes; and review & approval by the Joint Labor Management Safety (JLMS) Committee. Specific sections that comply with the current PTASP requirements include the addition of the following new sections: ·3.1 Performance Targets- Risk Reduction ·3.2 Plan Developed with Frontline Staff ·5.3.2 Risk Reduction Program- Assaults on Transit Workers ·5.3.3 Risk Reduction Program- Vehicles and Pedestrians ·6.1.26.1 Establish Safety Committee ·7.1.13 PaCT (which includes De-Escalation Training) ·7.2 Safety Training ·7.2.9.6 Infectious Disease Program
Version 2.0	2025 Update includes the Bipartisan Infrastructure Law required changes; and review & approval by the Joint Labor Management Safety (JLMS) Committee. Specific sections that comply with the current PTASP requirements include the addition of the following areas: • Updated 2025 Joint Labor Management Safety (JLMS) Committee Charter: ○ The 2025 updated Charter details JLMS Committee membership, procedures, and responsibilities as described in 49 CFR 673.19 • Updated 2025 Performance Targets as required by 49 CFR 673 • Language regarding Risk Based Inspections (RBI) as requested by 49 CFR 673 • Updated organizational charts as required by CPUC GO 164-F • General updates by subject matter experts to reflect current SFMTA procedures

Acronyms

ADA	Americans with Disability Act
APTA	American Public Transportation Association
ATO	Automatic Train Operation
ATP	Automatic Train Protection
ATCS	Automatic Train Control System
CCB	Change Control Board

CFR	Code of Federal Regulations
CPUC	California Public Utilities Commission (State Safety Oversight Agency)
CSO	Chief Safety Officer
FBI	Federal Bureau of Investigation
FOF	Field Observation and Feedback
FTA	Federal Transit Administration
GO	General Order
HSC	Historic Streetcar
ISAP	Internal Safety Audit Program
ICS	Incident Command System
ISEC	Industrial Safety & Environmental Compliance
MTC	Metropolitan Transportation Commission
NIMS	National Incident Management System
NTD	National Transit Database
Cal/OSHA	California Occupational Safety and Health Administration
SFMTA	San Francisco Municipal Transportation Agency
SME	Subject Matter Expert
SMS	Safety Management System
SMC	Safety Management Committee
PM	Preventative Maintenance
RPC	Rules and Procedures Committee
RT	Rail Training
RWP	Roadway Worker Protection
SCADA	Supervisory Control and Data Acquisition
SCRC	Safety Certification Review Committee
SEI	Safety-Event Investigation
SEIP	Safety Event Investigation Procedures
SMS	Safety Management System
SOP	Standard Operating Procedure
TAM	Transit Asset Management
TMC	Transportation Management Center
TSA	Transportation Security Administration
TSS	Transportation Safety Specialist
U.S.C.	United States Code

Definitions

Note: At the time of the 2025 PTASP Review & Approval, the CPUC is in the process of updating definitions within their Program Standard. These definitions will be updated in a future PTASP revision to align with the final and approved CPUC Program Standard.

Accident means any Safety Event that involves any of the following: A loss of life; a report of a serious injury to a person; a collision of an SFMTA transit revenue vehicle; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause. SFMTA does not use the term "accident." This definition is included only to acknowledge the terminology used in Federal and State regulations.

Rail Accident is a rail Safety Event that involves any of the following: loss of life, a report of a serious injury to a person; a collision of a SFMTA rail revenue vehicle; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle at any location, at any time, whatever the cause. All such rail accidents are reportable to the State Safety Oversight Agency. All rail accidents except those collisions that do not involve serious injury, fatality, or substantial damage or that do not occur in a grade crossing are reportable to the National Transit Database (NTD).

Bus Accident is a bus Safety Event that involves any of the following: A loss of life; a collision of a SFMTA bus revenue vehicle; or an evacuation for life safety reasons. All bus accidents that involve immediate transportation of an injured party away from the scene for medical attention, property damage equal to or exceeding $25,000 and an evacuation of a bus for life safety reasons are reportable to the National Transit Database (NTD).

Accountable Executive means a single, identifiable person who has ultimate responsibility for carrying out the SFMTA's Public Transportation Agency Safety Plan, responsibility for carrying out the SFMTA's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the SFMTA's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the SFMTA's Transit Asset Management Plan in accordance with 49 U.S.C. 5326. For SFMTA, the Director of Transportation is the Accountable Executive.

Assault on a transit worker means, as defined under 49 U.S.C. 5302, a circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker.

Board of Directors means the governing board with the authority to review and approve the SFMTA's Public Transportation Agency Safety Plan.

Chief Safety Officer means an adequately trained individual who has responsibility for safety and reports directly to the SFMTA's Director of Transportation. The SFMTA Chief Safety Officer may not serve in other operational or maintenance capacities. Chief Safety Officer serves as the Safety Management System (SMS) Executive.

Corrective Action Plan means a plan that describes the actions the SFMTA will take to address an identified deficiency or safety concern and the schedule for taking those actions.

Division means SFMTA's Transit, Streets, Capital Programs and Construction, Finance and Information Technology, Governmental Affairs, Safety**,** Taxi Access and Mobility Services, Human Resources or Communications Divisions

Documentation means the written description of policies, processes, procedures, objectives, requirements, authorities, responsibilities, or work instructions in support of SFMTA's PTASP and SMS.

Federal Transit Administration (FTA) means the operating administration within the United States Department of Transportation.

Hazard means any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of the SFMTA; or damage to the environment.

Incident is a Safety Event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of the SFMTA.

Investigation means the process used to determine the causal and contributing factors of a Safety Event or hazard, for the purpose of preventing recurrence and mitigating safety risk.

Key Staff means people who directly oversee a division, facility, or craft.

Metropolitan Transportation Commission is the metropolitan transportation planning organization for the San Francisco Bay Area.

National Public Transportation Safety Plan means the plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53.

Occurrence is a Safety Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of the SFMTA.

Operating division means any one of SFMTA's nine transit bus and rail operating divisions including Green, MME, Woods, Flynn, Kirkland, Islais Creek, Potrero, Presidio, and Cable Car.

Operator of a public transportation system means a provider of public transportation as defined under 49 U.S.C. 5302(14).

Performance measure means an expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets.

Performance target means a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the Federal Transit Administration (FTA).

Program Standard means the "Program Standard – Procedures Manual State Safety and Security Oversight of Rail Fixed Guideways" of the California Public Utilities Commission.

Public Transportation Agency Safety Plan (PTASP) means the documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and 49 CFR 673.

Public Transportation Safety Certification Training Program means either the certification training program for Federal and State employees, or other designated personnel, who conduct safety audits and examinations of public transportation systems, and employees of public transportation agencies directly responsible for safety oversight.

Rail fixed guideway public transportation system means any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, cable car, automatic people mover, or automated guideway transit system used for public transit, or any such system in engineering construction, and not regulated by the *Federal Railroad Administration (FRA)* or not specifically exempted by statute from Commission oversight.

Records means the evidence of results achieved or activities performed.

Risk means the composite of predicted severity and likelihood of the potential consequences of a hazard.

Risk mitigation means a method or methods to eliminate or reduce the consequences of hazards.

Safety Event is an accident, incident, or occurrence

Safety Paper Form means the paper form available to employees at each of the SFMTA's Divisional Safety Bulletin Boards to report anonymous safety concerns or conditions.

Safety Assurance means processes within the SFMTA Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation and ensure that the SFMTA meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Safety Management Policy means SFMTA's documented commitment to safety, which defines SFMTA's safety objectives and the accountabilities and responsibilities of its employees in regard to safety.

Safety Management System (SMS) means the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

Safety Management System (SMS) Executive means the SFMTA Chief Safety Officer.

Safety Performance Target means a Performance Target related to safety management.

Safety Promotion means a combination of training and communication of safety information to support SMS as applied to SFMTA's public transportation system.

Safety risk assessment means the formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or value of its safety risks.

Safety Risk Management means a process within the SFMTA's Public Transportation Agency Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.

Senior Management means the SFMTA's directors, deputy directors, operating division managers, safety managers and training managers.

Serious injury means any injury which: (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; (2) Results in a fracture of any bone (except simple fractures of fingers, toes, or noses); (3) Causes severe hemorrhages, nerve, muscle, or tendon damage; (4) Involves any internal organ; or (5) Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

State means California.

State of good repair means the condition in which a capital asset is able to operate at a full level of performance.

State Safety Oversight Agency means an agency established by the State of California that meets the requirements and performs the functions specified by 49 U.S.C. 5329(e) and the regulations set forth in 49 CFR part 674. The California Public Utilities Commission (CPUC) is SFMTA's State Safety Oversight Agency for rail.

Transit agency means an operator of a public transportation system.

Transit Asset Management Plan means the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR Part 625.

Vehicle means any rolling stock used on the SFMTA rail transportation system, including, but not limited to passenger and maintenance vehicle. It also means any rubber-tire vehicle used to transport revenue passengers on the SFMTA bus system.

Certification of Compliance

This Public Transportation Agency Safety Plan has been approved by:

- The SFMTA Accountable Executive
- The Joint Labor/Management Safety Committee
- The SFMTA Board of Directors

Please see APPENDIX J: CERTIFICATION OF COMPLIANCE for documentation.

1 INTRODUCTION

1.1 Safety Management System (SMS) Structure

This document is the San Francisco Municipal Transportation Agency's (SFMTA) Public Transportation Agency Safety Plan (PTASP) for the Bus and Rail systems and our street design to the extent that it impacts our Bus and Rail Systems. This PTASP embodies the elements in 49 CFR Part 673 adopted July 19, 2018 which focuses on establishing a Safety Management System (SMS). The Federal Transit Administration (FTA) defines SMS as:

> "the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards."

The four SMS components (Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion) lay the foundation of SFMTA's safety culture and support a safe, reliable system.

The processes described in the four SMS components in this PTASP are appropriately scaled to the size, scope, and complexity of the Agency.

SFMTA's PTASP establishes accountability and responsibility at the top levels of the organization, evidenced by the SFMTA's Board's approval and Director of Transportation's commitment to allocate necessary resources to sustain and improve SFMTA's safety culture. This safety plan explains each organizational unit's function within the larger SFMTA transportation system and how accountability for safety is integrated throughout the organization.

1.2 PTASP Structure

The PTASP Structure is based on the requirements of 49 CFR Part 673. It also provides SFMTA's Organization Structure, summarizes SFMTA's background and history of its formation, the scope and purpose of this PTASP, and a system description. The PTASP is organized by following §673 sections:

<u>General</u>
§673.1 Applicability
§673.3 Policy
§673.5 Definitions

<u>Safety Plan</u>

§673.11 General requirements
§673.13 Certification of compliance
§673.15 Coordination with metropolitan, statewide, and non-metropolitan planning processes

Safety Management System
§673.21 General Requirements
§673.23 Safety Management Policy
§673.25 Safety Risk Management
§673.27 Safety Assurance
§673.29 Safety Promotion

Safety Plan Documentation and Recordkeeping
§673.31 Safety plan documentation
§673.33 Safety plan records

The core of the PTASP is Safety Management System (SMS), which is divided the four components integral to the successful implementation of SMS within the SFMTA Transportation System: Component 1 - Safety Management Policy, Component 2 - Safety Risk Management, Component 3 - Safety Assurance, and Component 4 - Safety Promotion. Each Component has several elements, and each element includes processes and activities that are implemented within the SFMTA to ensure compliance with SMS requirements.

Component 1 - SFMTA's Safety Management Policy component is divided into five elements:
1. Safety Management Policy Statement
2. Safety Policy Communication
3. Employee Safety Reporting Program
4. Safety Goals
5. Safety Authorities, Accountabilities and Responsibilities

Component 2 - SFMTA's Safety Risk Management component includes three elements:
1. Safety Hazard Identification
2. Safety Risk Assessment
3. Safety Risk Mitigation

Component 3 - SFMTA's Safety Assurance component includes three elements:
1. Safety Performance Monitoring and Measurement
2. Management of Change
3. Continuous Improvement

Component 4 - SFMTA's Safety Promotion component includes two elements:
1. Safety Competency and Training Program
2. Safety Communication

The PTASP also references the Standard Operations Procedures (SOPs), which support the activities and processes of SMS. These SOPs are incorporated by reference. SOPs are intended

to address day-to-day operations. In case of a conflict between the PTASP and an SOP, the more up-to-date document would be utilized as long as it doesn't conflict with regulatory directives.

2 TRANSIT AGENCY INFORMATION

2.1 History

The San Francisco Municipal Railway (Muni) began operating in 1912, as one of the first municipally owned and operated transit systems in the United States. In in 2000, the Municipal Railway (Muni) was amalgamated with the Department of Parking and Traffic (DPT) into a single department of the City and County of San Francisco per San Francisco's Proposition E. In March 2000, Muni and DPT became the San Francisco Municipal Transportation Agency (SFMTA).

In 2007, SFMTA's authority over transportation and responsibility for oversight increased with the passage of Proposition A, which authorized SFMTA to issue bonds and required measurable standards for traffic and parking. Today, SFMTA has responsibility for the management of all ground transportation in the city, including transit (except for BART), bicycling, paratransit, parking, traffic, walking, and regulation of taxis.

The SFMTA is governed by a seven-member Board of Directors, appointed by the Mayor and confirmed by the San Francisco Board of Supervisors. The SFMTA Board provides policy oversight for the safe and efficient movement of people and goods in San Francisco in accordance with the San Francisco Charter and the Transit-First Policy.

2.2 System Description

The Muni rail system includes light rail surface and subway, historic streetcar, and cable car operations. The light rail system is built on the general alignment of the original streetcar lines, including the J, K, L, M, and N lines.

In January 2023, SFMTA completed the Central Subway which will extend the T Line from Fourth and King to the Chinatown Station. The alignment continues north on 4th Street. Then, near Brannan Street, the tracks go underground to the new subway, which continues under 4th Street and Stockton Street with the terminus near Clay Street.

In addition to the light rail and Muni Metro service, Muni operates the F-Line, running on the historic streetcar tracks on Market Street and along the right-of-way on the Embarcadero to Fisherman's Wharf This line is exclusively operated by historic streetcars (HSCs). Muni LRVs and HSCs operate out of both the Green Metro and Muni Metro East (MME) divisions.

Muni continues to operate its historic cable car system which came into existence in 1873. The remaining lines are California Street, Powell-Hyde, and Powell-Mason. Cable cars are propelled by a cable, located under the street surface and powered from a central station at Washington and Mason Streets. The cable cars themselves are built on original designs, which appeared near the end of the 19th century. Cable cars operate out of their own division, which is separate from other rail divisions.

Muni also operates several hundred motor and electric trolley buses (See **APPENDIX I:** for System Maps).

2.3 SFMTA Organizational Structure

SFMTA is generally divided among nine functional units, known as "Divisions." This is not to be confused with the Transit Division's Operating Divisions, which generally represent the various operating yards. Each Organizational Division works together and with the Safety Division to ensure that the SMS is implemented in compliance with the FTA regulations.

- Chief of Staff Office
- Office of the Chief Strategy Officer
- Civil Rights Office
- External Communications, Marketing and Outreach
- Finance and Information Technology
- Human Resources
- Safety Division
- Streets Division
- Taxi, Access and Mobility Services
- Transit Division

Throughout this document, when we use the term "Division" we are referring to one of the nine major organizational/functional units. When we use the term "Operating Division," we are referring to one of the eight operating units of the Transit Division under the Director of Transit. When we use the term "work unit," we are referring to one of the areas within the organizational/functional "Divisions."

2.3.1 Board of Directors

SFMTA is governed by its Board of Directors, which provides legislative, policymaking for the agency. The Board of Directors consists of seven (7) members all of whom are appointed by the Mayor. The Board of Directors is responsible for providing policy, direction, and governance, as well as ensuring that the needs of the residents of the City and County of San Francisco, SFMTA customers, and other stakeholders are reflected in SFMTA's policies.

2.3.2 Director of Transportation (DOT)

SFMTA's Director of Transportation (DOT) is responsible for SFMTA's overall management overseeing the Municipal Railway (Muni), parking, traffic engineering, pedestrian planning, bicycle implementation, accessibility and taxi regulation. Responsibilities include reporting to the Board of Directors on the activities, performance, and status of agency activities, directing the executive teams, and ensuring SFMTA's programs support regional economic develop while prioritizing the agency programs and supporting the overall quality and safety of SFMTA programs. For purposes of safety and this PTASP, the DOT functions as the Accountable Executive.

2.3.3 City Attorney's Office

Serving at the direction of the Board of Directors, the City Attorneys' Office represents the SFMTA in legal proceeding and provides legal counsel as needed.

2.3.4 Board Secretary

The Board Secretary is responsible for administering the affairs of the SFMTA Board of Directors/Parking Authority Commission and their committees. The Board Secretary also oversees the SFMTA's response to all requests for public records and is the staff liaison to the SFMTA's Citizen's Advisory Council.

2.3.5 Chief Financial Officer

The Chief Financial Officer oversees the Finance and Information Technology Division of SFMTA ensuring financial stability and effective resource utilization to maximize the financial, technological and physical ability and capacity of the SFMTA to support the SFMTA's Strategic Plan.

2.3.6 Chief Strategy Officer

The Chief Strategy Officer oversees the Office of the Chief Strategy Officer, a division with both policy and general services responsibilities. This includes the management of SFMTA assets including the maintenance of facilities, fixed infrastructure within buildings, yards and public grounds as well as the maintenance of bus stops, shelters and platforms. The division also has contains the Security and Investigations Section, responsible for emergency management, security, fare enforcement, and investigative services for the SFMTA.

2.3.7 Chief Technology Officer

The Chief Technology Officer oversees the Technology Solutions and Integration (TSI) Unit of SFMTA, which provides technology solutions and integration to enable data driven decision-making within the SFMTA. Projects include:

- Ensuring SFMTA's data infrastructure
- Asset Management software that supports an overall positive ridership experience
- System Integration and modernization for our Train Control System, transit vehicle video, station video, and radio communications.

2.3.8 Chief People Officer

The Director of Human Resources oversees human resource professional staff to ensure the supply of necessary human resources support services to the SFMTA including recruitment, hiring, employment and labor relations, organizational development and training, employee wellness, equal employment opportunity and workers' compensation

2.3.9 Chief Safety Officer

The safety of the SFMTA system is of utmost importance in everything SFMTA does. As such, safety responsibilities are shared across SFMTA leadership, all employees, contractors, and the public. The Chief Safety Officer oversees the System Safety and the Industrial Safety Division. For purposes of safety and PTASP, the Chief Safety Officer is designated as the SMS Executive. The Chief Safety Officer regularly attends SFMTA Board meeting providing pertinent safety information to its members and may attend various Agency Safety Committee meetings.

The three Safety Division Units that carry out the Director's safety initiatives include System Safety, Safety Administration, and the Industrial Safety & Environmental Compliance.

2.3.10 Director of Transit

The Director of Transit is responsible for overseeing the transit system by focusing on making Muni service more reliable, safer, and customer oriented. The Transit Operations Unit manages the day-to-day service on the street including nine operating divisions as well as the

Transportation Management Center (TMC), Transit Supervisor and Station Agents. The Bus and Rail Maintenance Units maintain the revenue fleet including motor coaches and electric trolleybuses and rail including light rail vehicles, historic streetcars and cable cars. Maintenance of Way is responsible for track and signal maintenance, infrastructure maintenance and overhead lines, light rail right-of-way, track way, fare collection system, vehicle and station cleaning and track signalization. The Program Delivery and Support Unit provides expertise in the operations and maintenance of critical transit systems. The Cable Car Unit provides historic cable car service on the three remaining lines located in the northern quadrant of San Francisco. Cable Car builds, operates and maintains the cable car fleet, operates and maintains the cable car machinery, and maintains its own track system.

2.3.11 Director of Streets

The Streets Division of the SFMTA provides multimodal transportation planning, engineering and operational improvements to San Francisco's transportation system to support sustainable community and economic development. The mission of the Streets Division is to plan, design, implement, and maintain the city's transportation infrastructure and regulations to support San Francisco's mobility needs as the city changes and grows. The Streets Division initiates and coordinates improvements to the city's street, transit, bicycle, pedestrian and parking infrastructure, thereby meeting the goals and objectives of the Transit First Policy, as well as supporting the SFMTA's Strategic Plan.

2.3.11.1 Director of Capital Program and Construction

Reporting to the Director of Streets, Capital Programs and Construction (CP&C) improves the City's transportation infrastructure by managing the capital improvement programs for all City and County transportation initiatives to support San Francisco's needs as the City changes and grows. This is achieved by engineering and construction improvements to the City's transportation infrastructure and the transit fleet and facilities, meeting the goals of Proposition E, as well as supporting the City's General Plan.

2.3.12 Governmental Affairs

The Director of Governmental Affairs within the Chief of Staff Office, is responsible for overseeing the coordination, development, advancement, and monitoring of the SFMTA's legislative and policy interests at the local, state and federal levels. The Division also includes Regulatory Affairs responsibilities. The Directors ensures that a supportive policy and regulatory environment exists to advance the capital project and policy priorities of the Agency.

2.3.13 Director of Taxi Access and Mobility Services

The Taxi Access and Mobility Services Division represents a combination of two distinct functions of the SFMTA that substantially overlap in the regulation of the taxi mode of transportation. Accessible Services is a core support function for all modes of the agency to ensure that transit, pedestrian and bike facilities and taxi services are accessible to older adults and people with disabilities. This unit also oversees the SFMTA Paratransit program. Taxi Services' core function is to license and regulate the private taxi industry to ensure that drivers and vehicles are safe, that taxi service is accessible to the disability community, and service is available regardless of trip origin or destination at prices that are transparent. TAMS also collaborates with Streets Division to harmonize regulated mobility permit programs to ensure SFMTA is prepared to oversee existing, new and future programs, as well as benefit from a more efficient organization structure.

2.3.14 Director of External Communications, Marketing and Outreach

The External Communications Marketing and Outreach Division is responsible for all aspects of internal and external communications including community outreach, public relations, social media, marketing, creative services and the SFMTA public website. It also manages the SFMTA's historic photography archive.

See **ORGANIZATION CHARTS** for the SFMTA Organizational Charts.

2.4 Scope and Purpose

Pursuant to CPUC General Order 164, the Program Standard, 49 CFR Part 673, and 49 CFR Part 674, the PTASP applies to all the SFMTA's transportation system modes including: the two bus system modes - motor coaches and electric trolleybuses; the three rail system modes - cable cars, historic street cars, and light rail vehicles; and the sixth mode - demand-response paratransit.

The PTASP defines SFMTA's technical and managerial safety activities of our transit system. The PTASP applies to all organizational units affecting, or affected by, the SFMTA bus and rail systems from planning through the operations and maintenance phases. Management's compliance with the PTASP ensures that its goals and objectives are achieved.

The PTASP demonstrates SFMTA's commitment to safety by identifying programs and processes that minimize all safety events. This PTASP complies with the requirements of 49 Code of Federal Regulations Parts 672, 673 and 674, issued by the Federal Transit Administration (FTA), General Order 164, issued by the California Public Utilities Commission (CPUC) as well as the CPUC Program Standard.

2.4.1 Applicability

Part 673 applies to SFMTA because the agency receives Federal financial assistance under 49 U.S.C. 5311.

2.4.2 Paratransit Services

SFMTA contracts for paratransit services with Transdev North America

3 SAFETY PLAN

This PTASP Safety Plan Section outlines SFMTA's conformance with SMS components pursuant to 49 CFR 673 including establishing safety performance targets, reviewing and updating of this document, emergency management protocols, coordination with the Metropolitan Transportation Commission (MTC), which is the metropolitan transportation planning organization for the San Francisco Bay Area, and establishing activities and process to support the Four Components of SMS as described in Sections 4.0 – 7.0.

3.1 Safety Performance Targets

SFMTA's safety performance measures are based on the measures established under the National Public Transportation Safety Plan. There are 15 total targets defined by the National PTASP, including 8 targets required for the Safety Risk Reduction Program (SRPP). The Safety Division will develop and coordinate, to the maximum extent practicable, these performance targets with the State of California, through the California Public Utilities Commission (CPUC), and the Metropolitan Transportation Commission (MTC, the relevant metropolitan planning organization.)

All measures will be evaluated over a fiscal year period against a 3-year average of data reported to the National Transit Database (NTD). 2025 targets are based on FY 2022-2024 (7/1/2021-6/30/2024). If SFMTA fails to meet a Safety Risk Reduction Program safety performance target, the safety set-aside will be allocated in the following fiscal year to projects that are reasonably likely to assist in meeting the target.

See APPENDIX B: SAFETY PERFORMANCE MEASURES AND TARGETS for Performance Targets and methodology.

3.2 Plan Development, Review, and Updates

3.2.1 Plan Development

On July 19, 2018, The FTA published the PTASP Final Rule under Title 49 CFR Part 673. Part 673 supersedes the safety plan requirement of 49 CFR Part 659 and requires certain operators of public transportation systems that receive funding under 49 United States Code (USC) Chapter 53 to develop a PTASP. This rule, effective July 20, 2019, requires that SFMTA have an approved PTASP in place by July 19, 2020. This PTASP has been developed as a comprehensive, agency-wide, safety plan built on a Safety Management System (SMS) to meet FTA requirements 49 CFR Part 673. This plan also fulfills the requirements of the CPUC Program Standard and GO 164 requiring a safety plan for SFMTA rail operations.

3.2.2 Plan Review and Update

As required by 49 CFR Part 673 and the CPUC GO 164, the SFMTA reviews its PTASP annually in order to determine if updates are required. Additionally in 2022, the SFMTA formed the JLMS to ensure that the PTASP was developed in coordination with frontline staff. SFMTA's Director of Transportation, acting as the agency's Accountable Executive, will hold SFMTA management responsible, as well as committees with agency safety processes established, to fulfill this requirement.

SFMTA's Safety Division is responsible for the annual review of the PTASP. The JLMS is an integral part of the required Frontline Staff review and development. The Safety Division will seek feedback from all Divisions to identify any changes to the PTASP. Division directors may appoint representative from their respective areas or conduct the review themselves. The Chief Safety Officer is responsible for ensuring that all proposed changes are collected by January. Safety Division personnel designated and trained in Safety Management System (SMS) are then responsible for compiling revisions from each department into an updated PTASP with all changes highlighted.

3.2.3 Plan Approval Processes (Internal)

The JLMS is responsible for reviewing and approving proposed changes to the PTASP ultimately providing the Safety Division with an approved draft PTASP. Upon the completion of PTASP revisions being approved by the JLMS, they then will be approved by the Accountable Executive, and then followed by SFMTA's Board of Directors per

3.2.4 Plan Approval Processes (External)

Following the conclusion of SFMTA review and in accordance with GO 164, the Safety Division will submit a formal letter to the CPUC declaring that the PTASP has been reviewed and revised if necessary. Attached to this letter will be an updated copy of the PTASP for the CPUC to review and approve with respect to the rail portion of the SFMTA system. CPUC's approval indicates that CPUC staff, in compliance with 49 CFR Part 674 and CPUC's Program Standard, has reviewed the effectiveness of SFMTA's SMS and determined that it complies. This could include review and approval of internal Safety Audits or the Triennial Safety Review. Should the CPUC request any changes to the PTASP, the Safety Division is responsible for vetting these changes with the JLMS and the affected Organizational Division and again submitting to the Executive Team, Accountable Executive, and the Board of Directors for their approval.

3.2.5 Plan Endorsement

Following written approval by the CPUC, the PTASP will then be endorsed by SFMTA's Accountable Executive and Board of Directors and made available throughout the agency by the Safety Division as well as introduced to employees during the New Employee Orientation process.

3.2.6 Coordination with Planning Stakeholders

In accordance with 49 CFR 673.15, SFMTA makes its safety performance measures available to the State of California's Public Utilities Commission (CPUC) for its review and to the Metropolitan Transportation Commission (MTC) to aid in its regional planning processes. To the maximum practicable, SFMTA coordinates with CPUC and the MTC in the selection of these targets.

3.2.7 Certification of Compliance

In accordance with 49 CFR Part 673.13, SFMTA provides an initial certification, and an annual certification thereafter, that it has met FTA's PTASP requirements. SFMTA will perform this certification using FTA's Transit Award Management System (TAM), FTA's software system for awarding and managing Federal grants.

In accordance with CPUC GO 164, SFMTA will submit annually a drafted formal letter of certification signed by the Accountable Executive certifying that SFMTA, based on the evaluation during the internal safety audit processes during the previous year, is in compliance with its PTASP and the National Transportation Safety Plan's performance requirements. (See APPENDIX B: SAFETY PERFORMANCE MEASURES AND TARGETS for these specific performance measures.)

3.3 Emergency Management Program

The PTASP incorporates by reference its Emergency Operations and Recovery Plan(EORP). The EORP follows the National Incident Management System (NIMS) and the Standard Emergency Management System (SEMS).

The Emergency Manager is responsible for managing the SFMTA Emergency Management Program. The Emergency Manager coordinates the process for agencywide response with federal, state and local officials.

In the event of a major city disaster that impacts more than transportation, the SFMTA Executive Director will join the Mayor and other City/County officials to determine policy responses and then provide directives to all pertinent SFMTA Organizational Divisions for implementation. The SFMTA will assign a SFMTA Disaster Preparedness Coordinator to the City of San Francisco Emergency Operation Center (EOC) to assist in the coordination of SFMTA's resources for an integrated emergency response. In major incidents, SFMTA's responses and resource requests are prioritized and coordinated with local, regional, State, and Federal officials in accordance with the National Incident Management System (NIMS). Further, to prepare for large-scale disasters and maintain close communications with outside departments and agencies, the SFMTA participates in the annual training and exercise(s), such as Fleet Week, coordinated by the San Francisco Department of Emergency Management.

3.3.1 Bus & Rail Operational Emergencies

SFMTA has emergency procedures to respond to various types of emergencies on the transportation system. These procedures include roles and responsibilities for departmental staff who respond to these emergencies.

Currently, all emergency response procedures for operations are within SFMTA Transportation Management Center's (TMC) pertinent SOPs. Examples of these SOPs are Subway Failure, Collision, Earthquake, Flood, Fire and Smoke, Bomb Threat, Civil Disorder Response, etc. For further details, refer to APPENDIX H: STANDARD OPERATING PROCEDURES.

The SFMTA TMC directly works with the Department of Emergency Management, 911 Emergency Communications and BART Operations Central Control to rapidly respond to routine systemwide emergencies. Field staff deployment is determined by the type and extent of an emergency. The first SFMTA employee arriving at the incident scene assumes the role of Incident Commander until they are released in accordance with the Incident Command System (ICS).

3.3.2 Bus & Rail Emergency Preparedness

SFMTA conducts at least one exercise each year for the agency to prepare for emergencies. Scenarios may be selected based on recent or past incidents, changes in procedures or regulations, or potential emergencies impacting new projects such as Central Subway.

When lessons learned require a change to current procedures, the affected Division will revise the procedure and implement the changes. All stakeholders will receive a copy of the revised procedure or be notified by General Notice or other accepted communication, such as a memorandum.

3.3.3 Emergency Operations and Recovery Plan (Disaster Recovery Plan)

SFMTA's Emergency Manager has developed and maintains the Emergency Operations and Recovery Plan (EORP), which is incorporated by reference. The EORP also covers coordination with federal, state, regional and local officials.

4 SAFETY MANAGEMENT POLICY

The following Sections 4.0 -7.0 describe the activities and processes to support the four SMS Components – Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.

4.1 Safety Management Policy Statement

The SFMTA's Safety Management Policy Statement, is attached in APPENDIX G: SAFETY MANAGEMENT POLICY STATEMENT. This memo includes safety objectives and describes the organizational accountabilities and responsibilities for safety.

4.2 Communication of the Safety Management Policy

SFMTA's Safety Management Policy communicates the agency's commitment to safety. SFMTA's Safety Management Policy is communicated to all SFMTA employees, managers, and executives throughout the agency, as well as SFMTA's contractors and to the Board of Directors. The Safety Management Policy is accessible at:

1. SFMTA Intranet – SFMTA personnel and contractors may access the Safety Management Policy electronically on the SFMTA intranet.
2. Employee Handbook – All existing employees will receive a copy of the Safety Management Policy to attach to their existing Employee Handbook.
3. Safety Bulletin Boards – The Safety Management Policy is posted on each Safety Bulletin Board located at each SFMTA Division.
4. New Employee Orientation – The Safety Management Policy is presented at the new employee orientation process.
5. Employee SMS Training – During each SMS training session, SFMTA provides copies of the Safety Management Policy to employees.

4.3 Employee Safety Reporting Program

SFMTA has a comprehensive Employee Safety Reporting Program where employees may report safety conditions and concerns, confidentially if desired, to senior management. Under the agency's employee safety reporting program, employees and contractors may report safety concerns using either a web-based Employee Safety Reporting Program database, a hotline, a form-based reporting system, or direct reporting to Senior Management through one of the safety committees.

Under the agency's SMS, all employees have an obligation to report safety concerns and conditions to their management. SFMTA's Employee Safety Reporting Program allows employees protection from reprisal and the ability to report safety conditions and concerns anonymously. However, reports of employee behavior deemed to be an illegal act, gross

negligence, or a deliberate or willful disregard for regulations, procedure or rules, are not eligible for protection from reprisal and are subject to discipline.

SFMTA Safety staff use the data collected through the Employee Safety Reporting Program to identify safety-event trends, unsafe conditions and hazards, and operators who exhibit unsafe behavior or poor skills. When data trends indicate unsafe behavior or poor skills, the Safety Division works with Subject Matter Experts (SME) makes recommendations to Transit Management for improving that performance. If the data indicates that hazards exist, the Safety Division will use the tools of Hazard Analysis and Risk Assessment under Safety Risk Management to rate and prioritize those hazards. Where these tools reveal that unacceptable hazards exist, the Safety Division recommends immediate corrective actions to mitigate or eliminate the identified hazards.

Often, incidents are the result of unsafe behaviors of third parties, which are beyond the control of SFMTA, and for which mitigations may not feasible. Mitigations which have been put in place to control such behaviors include:

- Active train warning signs for motorists and pedestrians
- Bus operator barriers to reduce operator assaults

When the collection of data and analysis of the data indicates employee behavior within SFMTA's control, the Safety Division recommends improvements. Over a number of years based on the Safety Division's recommendations, SFMTA has implemented several enhancements on its bus and rail system including:

- Photo enforcement system
- Switch-signal aspect improvement
- On-board video-based, g-force activated, enforcement system on the bus fleet
- In-cab camera surveillance system

Safety data is exchanged with other transit agencies and is provided to external agencies as required.

4.4 Safety Goals

- Provide a level of safety in transit services that meets, if not exceeds, industry standards and practices
- Achieve Vision Zero by eliminating all transit related traffic deaths
- Identify, eliminate, and/or control hazards and their associated risks
- Continuously improve safety of our transportation system by incorporating innovative technologies
- Improve safety communication throughout the agency

4.4.1 Vision Zero

In 2014, the City and County of San Francisco adopted a Vision Zero policy to end traffic deaths. Vision Zero San Francisco brings together city agencies to build better and safer streets, educate the public on traffic safety, enforce traffic laws, and adopt policy changes that save lives. This Safe Systems approach centers human life and coordinates across city departments to implement a suite of strategic actions prioritizing street safety outlined in the Vision Zero SF Action Strategy.

Every year in San Francisco about 30 people lose their lives and over 500 more are severely injured while traveling on city streets. These deaths and injuries are unacceptable and preventable. From annual police and hospital data trends, we know that pedestrians are vulnerable road users and are more likely to experience severe or fatal injuries when they are involved in a traffic crash.

San Francisco uses proven tools to address the primary factors causing crashes on our streets. To save lives, we focus on slowing speeds, improving visibility at crossings, and reducing conflicts for vulnerable road users. Our work focuses on the most effective tools that will have the largest impact on safety on our streets. These 2021 through 2024 strategic actions were developed by San Francisco's city agencies with significant input and ideas from community groups, advocates, and the public. Specific strategic actions addressing pedestrian safety include:

- Modify all eligible signals on the High Injury Network (HIN) for slower walking speeds and leading pedestrian intervals
- Ensure all intersections on the HIN have high visibility crosswalks and daylighting
- Upgrade 40% of signals on the HIN with Accessible Pedestrian Signals (APS) and 95% of signals on the HIN with Pedestrian Countdown Signals (PCS)
- Complete 150 traffic calming devices annually, including locations focused on areas that have been prioritized for seniors, people with disabilities, and schools.
- Run culturally competent and accessible education campaigns and outreach to create traffic safety champions

- Explore additional collision avoidance technologies especially those that reduce visibility impairments, for revenue and non-revenue vehicles, including retrofits to vehicles in revenue service and specifications for future procurements.

4.5 Safety Authorities, Accountabilities, and Responsibilities

SFMTA's central approach to achieving safety goals and objectives requires all SFMTA personnel to be responsible for safety and take into consideration the safety implications of their decisions. SFMTA's SMS uses a proactive approach. Proposed modifications are evaluated from a safety perspective prior to implementation to ensure they do not introduce new hazards into our transportation system. The PTASP also requires that employees consider that their actions may affect the safety. All SFMTA employees are responsible for safety.

The following personnel have specific authorities, accountabilities and responsibilities:

4.5.1 Accountable Executive

The Accountable Executive may delegate specific responsibilities, but the ultimate accountability for the transit agency's safety performance cannot be delegated and always rests with the Accountable Executive. SFMTA's Director of Transportation is the Accountable Executive and has the following authorities, accountabilities, and responsibilities under this plan:

- Control and direct human and capital resources needed to develop and maintain both the PTASP and SMS.
- Designate a Chief Safety Officer.
- Ensure that SFMTA's SMS is effectively implemented throughout SFMTA's public transportation system.
- Monitor SFMTA's safety performance and address substandard performance by implementing mitigation measures.
- Establish and implementation of the PTASP.
- Carry out SFMTA's Transit Asset Management (TAM) Plan.
- Implement safety risk mitigations for the safety risk reduction program included in the PTASP.
- Consider all other safety risk mitigations recommended by the Safety Committee.

4.5.2 SMS Executive

SFMTA Chief Safety Officer (CSO) is designated by the Accountable Executive as the SMS Executive. The SMS Executive is well experienced in rail and bus safety, meeting all the training requirement of 49 CFR 672.13 (Transportation Safety Institute's (TSI's) curriculum for the

PTSCTP). The CSO also holds a direct line of reporting to the Accountable Executive and has the following Authorities, Accountabilities and Responsibilities under this plan:

- Implement the Agency's SMS and manage day-to-day SMS operations
- Address substandard safety performance
- Ensure SFMTA's policies are consistent with PTASP goals and objectives
- Brief the Accountable Executive and the Board of Directors on SMS progress and status
- Does not serve in any other capacity related to maintenance or operations

4.5.3 SMS Leadership

The SFMTA Executive Team is designated as SMS Leadership by the PTASP. The SMS Leadership, who have a direct reporting relationship to the Accountable Executive, have the following authorities, responsibilities and accountabilities for the day-to-day implementation and operation of the Agency's SMS under this plan:

- Implement and operate SFMTA's SMS as it applies to their respective Division
- Allocate resources within respective Division to accomplish goals and objectives of PTASP
- Oversee Divisional day-to-day SMS operations
- Maintain compliance with the PTASP
- Modify policies consistent with implementation of the PTASP

4.5.4 Key Staff

Key Staff are critical to the successful implementation of the SFMTA's SMS. Key Staff are employees who directly oversee a division, facility, or craft. Key Staff have the following authorities, accountabilities, and responsibilities under this plan:

- Maintain the infrastructure or program within their area of responsibility
- Comply with the programs and processes identified within the PTASP
- Support development, implementation and operation of SMS within SFMTA's PTASP
- Coordinate all SMS activities
- Maintain documents that support the SMS processes and activities
- Review and investigate reports of safety concerns and conditions and establish and implement corrective actions, as appropriate, in a timely manner
- Investigate employee injuries and document findings of investigations
- Verify PTASP compliance and report deviations to the Executive Team

Additional operational and maintenance roles and responsibilities are outlined in **APPENDIX C: RESPONSIBILITIES OF TRANSIT OPERATIONS AND MAINTENANCE**.

5 SAFETY RISK MANAGEMENT

Safety Risk Management is a cornerstone of SMS. During this process SFMTA identifies, evaluates, and devises means to eliminate, mitigate, or accept hazards. Not all hazards can be eliminated given the resources at hand. SFMTA's goal with Safety Risk Management is to mitigate hazards to a level as low as reasonably practicable. The processes outlined in this section describe SFMTA's approach for identifying, investigating, evaluating, mitigating or eliminating hazards. For more details, see Hazard Assessment SOP, which is included by reference.

The SFMTA has developed and implemented a Safety Risk Management (SRM) process comprised of safety hazard identification, safety risk assessment, and safety risk mitigation. The SFMTA Safety Risk Management (SRM) process involves identifying, reporting, assessing, and mitigating hazards affecting our transportation system.

The SFMTA SRM process is led throughout our agency by various employees including those involved in the initial design of street and transit systems, organizational changes, development of operational procedures, and the Safety Assurance process (described in Component 3.0), where newly identified hazards are analyzed and mitigated through the SRM process.

Upon identification of a safety concern or condition, the Safety Division will contact the appropriate SME for an initial review. If in the SME's opinion, the concern or condition is not hazardous, the Safety Division will document that finding in the Employee Safety Reporting Program database and, if it was reported by an employee, Safety will notify the reporting employee. If, on the other hand, the SME believes the concern or condition to be a hazard, the SME will perform a formal hazard analysis and identify potential consequences.

Once complete, the SME will provide the hazard analysis to the Safety Division staff, who, in collaboration with the SME, will perform a safety risk assessment of the hazard's potential consequences. If the assessment determines that the safety risk is unacceptable, the Safety Division will then notify the responsible manager and request a corrective action plan. If the hazard was reported by an employee, the Safety Division will also notify the reporting employee of the results of the safety investigation.

Once the draft corrective action plan is developed, it is submitted to the SME for approval, with a copy to Safety who will obtain CPUC staff approval for applicable rail-related hazards.

Once the corrective action plan is fully approved, the responsible manager will then mitigate or eliminate the hazard and document this in the Employee Safety Reporting Program database. Some of the methods the responsible manager may use to mitigate the consequences of a hazard include implementing design changes, installing safety devices, installing warning devices or signage, or changing work practices or procedures to provide a level of safety that is practical with the available resources of SFMTA. Note: some mitigations require approvals

beyond the authority of staff, such as the SFMTA Board of Directors, other City agencies or external agencies. In these situations, the SME and/or responsible manager will pursue the appropriate approvals, but ultimate approval is at the discretion of these agencies/legislative bodies.

Once the mitigation is implemented, the Safety Division will regularly monitor it to determine if the hazard has been adequately mitigated and no longer represents an unacceptable risk, close the hazard report in the Employee Safety Reporting Program database, and subsequently notify the reporting employee of the actions taken, if applicable. If the hazard was reported anonymously, the Safety Division will post the summary results of the reported hazard investigation on the Division Safety Bulletin Boards throughout the SFMTA.

5.1 Safety Hazard Identification

SFMTA identifies hazards through analyses of its streets and transit systems, operations, and operational environment and relies on data and information provided by the FTA and CPUC. SFMTA uses the following methods and processes to identify hazards:

1. Occupational injury or illness investigations
2. Safety Event investigations
3. Safety concern and condition employee reporting
4. Conducting ad hoc safety focus groups to address current safety concerns
5. Reviewing results of safety reporting trends
6. Routine and non-routine inspections
7. Internal and external FTA and CPUC audits
8. Lessons learned
9. Data and information provided by the CPUC or FTA in their inspection reports

The most significant method of identifying hazards is through the investigation of safety event investigations. Safety Division safety professionals investigate events, which meet the reporting thresholds of CPUC's GO 164 and the State Program Standard, to determine probable and contributory causes. Safety Division personnel collect and analyze data from safety event scenes and other location. Some of the data they review include on-board and platform video footage, statements made by involved employees and witnesses, maintenance records, and the opinions of SME's. If the Safety Division investigators and SME's determine the safety event was caused by a hazard, they use the Safety Risk Mitigation process described below to eliminate or mitigate the discovered hazard through the opening and completion of corrective action plans.

SFMTA has also adopted an Employee Safety Reporting Program (ESRP) where employees can report safety concerns and conditions to Senior Management. These include a web-based Employee Safety Reporting Program database, a form-based reporting system, and direct reporting to Senior Management. The ESRP has been launched within the Transit Division (reaching approximately 2500+ employees) and is being extended to the entire Agency. This

program is a collaboration between two City Departments, SFMTA and the City Administrator's 311 Customer Service Center. The 311 Customer Service Center is available in multiple languages, 24 hours a day, 7 days a week via phone, web, and mobile. The Safety Division and SME's review these reports to determine if the safety concerns are actual hazards.

The California Public Utilities Commission (CPUC) has safety and security regulatory authority over all rail transit and other public transit fixed-guideway systems (referred to as RTAs) under Public Utilities Code Section 99152 and other California statutes.

The CPUC's State Safety Oversight (SSO) program is approved and certified by the Federal Transit Administration (FTA) in accordance with the requirements of federal public transportation safety program law (49 United States Code §5329) and FTA's SSO regulation (49 Code of Federal Regulation Part 674).

The CPUC's Rail Transit Safety Branch (RTSB) implements its SSO program and focuses on verification of compliance with the Public Transportation Agency Safety Plan, System Security Plan, Safety Certification Plans, and other plans and procedures of the RTA to ensure that these plans meet all state and federal rules and regulations, and that RTAs are effectively implementing those plans and the RTA's adopted policies and procedures.

Under state laws and regulations, and federal regulations, CPUC has the authority to make announced (with advanced notice) and unannounced (without advance notice) inspections of all RTA activities, including infrastructure, equipment, records, personnel, and data.

SFMTA complies with the authority of the CPUC by assisting in providing timely responses, data request, records requests, and assistance while on SMFTA property. SFMTA works in partnership with the CPUC on Safety Certifications, Event Reports, System Modifications, and construction consultations. SFMTA recognizes CPUC's authority outlined in the Public Utilities Code and other state laws, and all SFMTA employees are required to comply with CPUC representatives performing regulatory oversight in accordance with those laws.

5.1.1 CPUC State Safety Oversight Agency Risk Based Inspections

The California Public Utilities Commission (CPUC) has safety and security regulatory authority over all rail transit and other public transit fixed-guideway systems (referred to as RTAs) under Public Utilities Code Section 99152 and other California statutes.

The CPUC's State Safety Oversight (SSO) program is approved and certified by the Federal Transit Administration (FTA) in accordance with the requirements of federal public transportation safety program law (49 United States Code §5329) and FTA's SSO regulation (49 Code of Federal Regulation Part 674).

The CPUC's Rail Transit Safety Branch (RTSB) implements its SSO program and focuses on verification of compliance with the Public Transportation Agency Safety Plan, System Security

Plan, Safety Certification Plans, and other plans and procedures of the RTA to ensure that these plans meet all state and federal rules and regulations, and that RTAs are effectively implementing those plans and the RTA's adopted policies and procedures.

Under state laws and regulations, and federal regulations, CPUC has the authority to make announced (with advanced notice) and unannounced (without advance notice) inspections of all RTA activities, including infrastructure, equipment, records, personnel, and data.

Under the FTA Special Directive 22-25 issued to the CPUC, the CPUC RTSB has developed a Risk-Based Inspection (RBI) program and upon FTA approval will implement that program. Under the Special Directive requirements, the RTA must provide the SSOA with the data the RTA collects when identifying hazards and assessing and mitigating safety risk**.** The RTSB has set forth the requirements for its RBI program in the RTSB Program Standard Procedures Manual. The Special Directive requires that the CPUC acquire RTA safety, inspection, and maintenance data to analyze and review for any identifiable trends or findings to "inform" the prioritization of CPUC inspections.

As such, RTSB has met and consulted with each RTA regarding the specific records RTSB seeks to routinely acquire from the RTA as part of this process, and the frequency of RTA submittals of that information. RTSB has identified the records sets and the process for transmittal of the data and records to CPUC via a special mailbox (RBIdata@cpuc.ca.gov) and has included a sample of this information in the RTSB Program Standard in Attachment 24. Other data transfer methodologies may also be used such as SharePoint sites or File Transfer Protocol systems.

During those meetings with the RTAs, RTSB discussed with the RTAs:

- Protocols to be employed for both announced and unannounced inspections, including arranging announced inspections and expectation for accessing the RTAs facilities for both announced and unannounced inspections;
- A program to educate RTA employees on the CPUC's authority to access RTA facilities under California Law, and;
- RTAs expectation that employees will cooperate with RTSB inspectors and be responsive to their requests for access, records or other information.

RTSB's RBI requirements and protocols established in accordance with Special Directive 22-25 requirements are contained in the RTSB program Standard in Section 1.5.0 - INSPECTIONS OF RAIL TRANSIT AGENCIES and Section 1.6.0 - RECORD REVIEWS, COLLECTION, AND ANALYSIS.

SFMTA acknowledges the Commission's authority for developing the RBI processes and procedures in Sections 1.5.0 and 1.6.0 and will incorporate these requirements as the required RBI procedures applicable in California into our Agency Safety Plan.

SFMTA complies with the authority of the CPUC by assisting in providing timely responses, data requests, records requests, and assistance while on SFMTA property. SFMTA works in partnership with the CPUC on Safety Certifications, Event Reports, System Modifications, and construction consultations. SFMTA recognizes CPUC's authority outlined in the Public Utilities Code and other state laws, and all SFMTA employees are required to comply with CPUC representatives performing regulatory oversight in accordance with those laws.

5.2 Safety Risk Assessment

The SFMTA, through the Safety Division and SMEs, assesses the safety risk of the potential consequences of each hazard identified.

To assess the safety risks, SFMTA has established its own standards for determining the likelihood and severity of the potential consequences based on the SFMTA's transit system. Once unacceptable hazards and the potential consequences are identified, the Safety Division assesses the risk of the potential consequences. This includes evaluating the likelihood and severity of the potential consequences.

SMEs then determine the necessary mitigation. Responsible managers complete these mitigations to effect hazard resolution. Hazard resolutions are tracked and managed throughout the entire Safety Risk Management process using a combination of methods including the agency-wide safety management database and Safety-Risk Register shown in APPENDIX D: SAFETY RISK REGISTER.

5.2.1 Likelihood of Potential Consequence

Likelihood represents the chance that the potential consequence of the hazard will occur. SFMTA categorizes the likelihood of the potential consequence occurring as frequent, probable, occasional, remote or improbable based on thresholds shown in the table below. For example, a broken rail (hazard) could result in a derailment (event) causing death, injury and severe property damage (consequence). The likelihood of this potential consequence occurring is frequent because a broken rail will cause a derailment every time a train goes over it if there are no measures in place to mitigate this.

Table 5-1 Likelihood of Potential Consequence

Likelihood		
Description	**Level**	**Criteria**
Frequent	A	Likely to occur often in the life of an item. Continuously experienced in the fleet/inventory
Probable	B	Will occur several times in the life of an item, will occur frequently in the fleet

Occasional	C	Likely to occur sometime in the life of an item. Will occur several times in fleet/inventory
Remote	D	Unlikely, but possible, to occur in the life of an item. Unlikely but can reasonably be expected to occur in the fleet/inventory
Improbable	E	So unlikely, it can be assumed occurrence may be experienced. Unlikely to occur, but possible in fleet/inventory
Eliminated	F	Incapable of occurrence

5.2.2 Severity of Potential Consequence

Severity represents how bad the potential consequence of the hazard will be. The SFMTA categorizes the severity of the potential consequence of a hazard as catastrophic, critical, marginal or negligible based on the thresholds shown in the table below. For example, a broken rail (hazard) resulting in a derailment (event) could cause death, permanent disability, and severe property damage (consequences). The severity of this potential consequence would be catastrophic because it could cause death, injury, or severe property damage.

Table 5-2 Severity of Potential Consequence

Severity Categories		
Description	**Level**	**Criteria**
Catastrophic	1	Could result in death, permanent total disability, property damage exceeding $3M or irreversible severe environmental damage that violates law or regulation.
Critical	2	Could result in permanent/partial disability, injury or illness that may result in hospitalization, property damage between $200K and $3M or reversible environmental damage causing a violation of law or regulations
Marginal	3	Could result in injury or illness resulting in one or more lost workday(s), property damage between $10K and $200K or mitigatable environmental damage without violation of law or regulation.
Negligible	4	Could result in injury or illness not resulting in a lost workday, property damage between $2K and $10K or minimal environmental damage.

5.2.3 Risk Assessment

The SFMTA combines the severity levels with the likelihood to determine a risk assessment score which is then used to prioritize the hazard. Those scores are shown in **Table 5-3 Risk Assessment**.

Table 5-3 Risk Assessment

	Risk Assessment Matrix			
	Hazard Categories			
Likelihood	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)
(A) Frequent	High (A1)	High (A2)	Medium (A3)	Medium (A4)
(B) Probable	High (B1)	High (B2)	Medium (B3)	Low (B4)
(C) Occasional	High (C1)	High (C2)	Medium (C3)	Low (C4)
(D) Remote	Medium (D1)	Medium (D2)	Low (D3)	Low (D4)
(E) Improbable	Low (E1)	Low (E2)	Low (E3)	Low (E4)
(F) Eliminated	Low (F1)	Low (F2)	Low (F3)	Low (F4)

5.2.4 Prioritization

Based on the risk assessment score, SFMTA prioritizes hazards for mitigation or elimination as follows:

Priority #1 Consequence will occur frequently, probably, or occasionally with catastrophic or critical severity (A1, B1, C1, A2, B2 or C2).

Priority #2 Consequence will occur frequently, probably, or occasionally but with catastrophic, critical, marginal or negligible severity (D1, D2, A3, B3, C3 or A4).

Priority #3 Consequence will occur remotely or improbably with catastrophic, critical, marginal, or negligible severity (E1, F1, E2, F2, D3, E3, F3, B4, C4, D4, E4, or F4).

Table 5-4 Prioritization

Safety Risk Priority	Criteria
Priority #1	Unacceptable – Action Required Safety risk must be immediately mitigated or eliminated
Priority #2	Undesirable – Management Decision: Executive Management must decide whether to accept safety risk with monitoring or require additional controls
Priority #3	Acceptable with review Safety risk is acceptable pending management review

The Safety Division will document identified hazards and track their mitigations in a Safety Risk Assessment Register. An example of the Safety Risk Assessment Register is included as APPENDIX D: SAFETY RISK REGISTER.

In accordance with the requirements of CPUC's GO 164, if SFMTA determines that a hazard involving our rail system meets the definition of "unacceptable," the Safety Division will notify CPUC, using CPUC web-based reporting system, and involve CPUC staff in the investigation and approval of the Correction Action Plans.

5.3 Safety Risk Mitigation

The SFMTA has processes and methods in place to identify mitigations and implement strategies to reduce the severity and likelihood of the consequence and in turn reduce the agency's safety risks (see Hazard Assessment SOP for details.)

As noted in Section 5.1 once the responsible manager completes a corrective action plan, they will submit it to the SME for approval, with a copy to Safety. The Safety Division will submit the corrective action plan to CPUC staff for approval by e-mail and in accordance with GO 164, if rail related. Once the corrective action plan is approved by the CPUC, Safety will inform the responsible manager who will then mitigate or eliminate the hazard and document this in the Employee Safety Reporting Program database.

If the SFMTA identifies a hazard that must be mitigated immediately on an emergency basis the SMS Executive can authorize a responsible manager to take immediate corrective action before review and approval by CPUC staff. The Safety Division will provide the CPUC staff timely notification by e-mail of the corrective action taken on an emergency basis, so that CPUC staff can review and approve the corrective action.

Some of the methods the responsible manager may use to mitigate the consequences of a hazard include implementing design changes, installing safety devices, installing warning devices or signage, or changing work practices or work procedures to provide a level of safety that is practical with the available resources of SFMTA. Mitigations may also include modification of equipment or facilities design, changes to maintenance schedules or practices, revision of operating rules or procedures, employee training, relocation and redesign of bus stops, modifications to rail stations, installation of traffic control devices or traffic signs, pavement markings, and street design.

Safety regularly monitors mitigations to determine if the hazard has been reduced to an acceptable level and no longer represents an unacceptable risk. (See Monitoring Mitigation Plans in the Safety Assurance Section 6.0.)

Safety will close the hazard report in the Employee Safety Reporting Program database and notify the reporting employee of the actions taken, if applicable. If the hazard was reported anonymously, the Safety Division will post the summary results of the investigation and mitigation for the reported hazard on the Division Safety Bulletin Boards throughout the SFMTA. Every month, the Safety Division will provide CPUC staff with a rail report concerning the progress in completing corrective action plans. For non-rail reports, SFMTA will house those progress reports internally.

5.3.1 Corrective Plan Contents

Responsible managers will develop corrective actions plans to minimize, control, correct, or eliminate the risks of hazards identified through the Risk Assessment Process. The corrective

action plan must contain a description of the corrective action, the schedule for completing the corrective action, and the individuals responsible for completing the corrective action.

5.3.2 Risk Reduction Program - Assaults on Transit Workers

In accordance with U.S. Code Title 49 §5329(d)(1)(I)(ii), the SFMTA uses a range of measures to prevent assaults on transit workers, including:

- Operator Area Protective Barriers (except for the historic cable cars due to design constraints)
- Video Surveillance

The SFMTA has installed operator barriers on its entire fleet and will continue to monitor the effectiveness of this program and other measures.

The process of mitigating transit worker assaults must be a dynamic one. The agency shall implement the following measures to immediately to protect transit workers from assault:

- Penalties Signage
- Passenger Code of Conduct Signage
    - Post on transit vehicles, facilities and in transit stations as one point to a multifaceted approach to prevent assaults. Public Service announcements on the vehicle.
- Video Surveillance
- Audio Surveillance
- Emergency Alarms (including in and around facilities)
- Automatic Vehicle Location
- Operating Procedures
- Policing Strategies
- Communication Protocols
- Adequate Lighting in work Areas to include transit stops and stations
- Secure Areas Where Workers Work
- Provide Resources for Victims of Assaults
- Violence in the Workplace Standard Operating Procedure
- Provide law enforcement with data and materials necessary to pursue assailants.
- Provide the frontline staff with security data and trends. The union shall receive this data electronically.

5.3.3 Risk Reduction Program - Vehicular and Pedestrian

The Vison Zero Program has a program that focuses on the reduction of vehicular and pedestrian accidents involving transit vehicles. Section 4.4.1 describes this program.

6 SAFETY ASSURANCE

SFMTA's safety assurance processes ensure the agency monitors its operations to identify any safety risk mitigations that are ineffective, inappropriate, or were not implemented as intended and ensures the agency fulfills its safety objectives and complies with regulatory requirements. SFMTA accomplishes this by employing safety performance monitoring and measurement processes including systematic collection, analysis, and assessment of data, as well as internal safety audits, rules compliance testing, facilities and equipment inspections, maintenance audits and inspections, event investigation, and drug and alcohol testing. If SMS Executive learns of any unresolved safety deficiencies through the safety assurance processes, he/she informs the Accountable Executive. Under the direction of the Accountable Executive, the SFMTA develops and carries out plans to address and resolve those deficiencies.

SFMTA's management of change processes ensure the agency identifies the safety impact of any changes to the transportation system. Processes such as safety certification, configuration management, procurement, and system modification enable the agency's safety program continues to remain effective even as our operating environment changes. Procedures designed to ensure that safety risk mitigations are effective to collect safety performance data help SFMTA predict future safety events to mitigate and prevent them, and to analyze the safety risks of any new practices or procedures that the SFMTA adopts.

SFMTA's continuous improvement processes enable the agency to monitor its mitigations using feedback loops identified by way of safety data acquisition and analysis and corrective action plans.

SFMTA ensures that Safety Assurance is maintained through efforts in three core areas:

1. **Safety Performance Monitoring and Measurement** – SFMTA relies on data and established processes and activities to ensure the implementation and effectiveness of safety risk mitigations.
2. **Management of Change** – SFMTA evaluates the safety impact on our transportation system arising from in regulatory changes, service changes, new technology, new processes or procedures, or new employee labor agreements to name a few.
3. **Continuous Improvement** – SFMTA regularly assesses our safety performance data and addresses any identified deficiencies through corrective action plans.

6.1 Safety Performance Monitoring and Measurement

6.1.1 Safety Data Acquisition and Analysis

SFMTA's safety data acquisition and analysis process is used to monitor the safety performance of our transportation system. SFMTA collects and analyzes data from throughout the agency. Data analysis includes identifying lagging indicators to assess the probability and

contributing causes of safety events and leading indicators to proactively identify conditions that may affect safety performance.

The SFMTA continuously analyzes bus and rail safety data acquired from various sources, including TMC operational logs, incident reports, defect cards, and employee reports through the Employee Safety Reporting Program, internal safety audits, external audits, incident investigations, efficiency testing results, video-based enforcement monitoring reports, facility inspections, and compliance checks. The data gleaned from these activities is used by SFMTA to assess the performance and effectiveness of the agency's rail operational processes and the SMS.

6.1.1.1 Data Collection and Reporting Requirements

6.1.1.1.1 Workers' Compensation Program

Workers' Compensation Program (WC), administered by a third-party administrator, manages claims administration. Detailed oversight by the administrator, provides proactive mitigation of the frequency and severity of workers' compensation injuries. The WC Program also provides monthly management reports and analyses of WC data and collaborates with Industrial Safety and Environmental Compliance to assist in maintaining safe working conditions at SFMTA.

6.1.1.1.2 Safety Division

The Safety Division analyzes safety data to monitor SFMTA's SMS**.** Each Organizational Division, Transit Operating Division, or work unit within SFMTA is responsible for providing the Safety Division with data requested on topics including, but not limited to:

- Safety Events (accidents, incidents, and occurrences)
- Customer Complaints
- Maintenance Activities
- Supervisory Interactions

SFMTA monitors its system to ensure compliance with, and sufficiency of, our rules and procedures relating to operations and maintenance. SFMTA collects the data to demonstrate the effectiveness of our operational processes and the SMS. SFMTA gathers data from processes which monitor its bus and rail systems for safety and regulatory compliance. If through the monitoring processes, the agency identifies a potential hazard, the Safety Division is notified so the hazard may be evaluated, assessed, and mitigated through the Safety Risk Management Process (see the Hazard Analysis SOP).

6.1.2 Safety Performance Targets

The SFMTA regularly monitors the Safety Performance Targets defined in Section 3.1 and APPENDIX B: SAFETY PERFORMANCE MEASURES AND TARGETS.

6.1.3 Employee Safety Reporting Program

As noted in Section 4.3, SFMTA has established an Employee Safety Reporting Program. SFMTA uses information gathered from its Employee Safety Reporting Program to monitor the safety performance of its transportation system. Safety concerns and conditions reported confidentially or not, through the Employee Safety Reporting Program, are monitored and analyzed by Safety staff.

SFMTA Safety staff use the data collected through the Employee Safety Reporting Program to identify safety-event trends, unsafe conditions and hazards, and operators who exhibit unsafe behavior or poor skills while operating bus or rail vehicle. When data indicate unsafe behavior or poor skills, the Safety staff will recommendations Transit Management pursue improvement in the operator's performance. If the data indicates that a hazard exist, the Safety staff will initiate the Safety Risk Management process by coordinating the completion of a preliminary Hazard Analysis and Risk Assessment. Where these tools reveal that unacceptable hazards exist, the Safety Division recommends immediate corrective actions to mitigate or eliminate the identified hazards.

Some incidents are the result of unsafe behaviors of third parties, which are outside the authority of the SFMTA. Mitigations which have been put in place to control such behaviors include:

- Active train warning signs for motorists and pedestrians
- Operator barriers to reduce operator assault

When the collection of data and analysis of the data indicates employee behavior within SFMTA's control, the Safety Division recommends improvements. Over a number of years based on the Safety Division's recommendations, SFMTA has implemented several enhancements on its bus and rail system including:

- Photo enforcement system
- Switch-signal aspect improvement
- On-board video-based, g-force activated, enforcement system on the bus fleet
- In-cab camera surveillance system

Safety data is exchanged with other transit agencies and is provided to external agencies as required.

6.1.4 Rail Continuous Monitoring

Safety and Transit Divisions monitor rail operational data (e.g., TMC operational logs, incident reports, defect cards, and reports from the Employee Safety Reporting Program) to measure the effectiveness of safety risk controls, assess SMS system performance and identify potential

hazards. SFMTA Project Managers who employ contractors and sub-contractors, monitor these service providers for compliance with our SMS and PTASP. For example, CP&C Project Managers routinely visit contractors' work sites and review contractors' activity report to determine if the contractors' activities comply with applicable regulations, do not introduce hazards into their workplace, and provide their employees with the necessary level of safety to comply with SFMTA's SMS. Through the technique of Field Observation and Feedback, SFMTA's management continually assesses the effectiveness of supervisory implementation of operations and maintenance rules and procedures.

6.1.5 Bus Continuous Monitoring

Safety and Transit Divisions monitor Bus operational data (e.g., TMC operational logs, incident reports, defect cards, and reports from the Employee Safety Reporting Program) to measure the effectiveness of safety risk controls, assess SMS system performance and identify potential hazards. SFMTA Project Managers who employ contractors and sub-contractors, monitor these service providers for compliance with our SMS and PTASP.

6.1.6 Bridges and Structures Continuous Monitoring

Capital Programs and Construction Division (CP&C) manages the Bridge, Tunnel, and Subway Inspection Program. Under this Program, CP&C monitors the condition of the bridges, tunnels, and subways that are the responsibility of the SFMTA and facilitates regular inspections of them to ensure they are structurally sound. CP&C documents, tracks, and implements repairs for any inspection findings.

6.1.7 Rail Quality Assurance

The SFMTA Transit Division has established a Quality Assurance program designed to determine if vehicle preventative maintenance inspections are performed in accordance with SFMTA and original vehicle equipment manufacturers standards. The Quality Assurance Unit regularly reviews transit rail vehicles which have just completed preventive maintenance (PM) inspections to determine if all the steps of the PM inspections have been correctly executed and completed.

6.1.8 Bus Quality Assurance

The SFMTA Transit Division has established a Quality Assurance program designed to determine if vehicle preventative maintenance inspections are performed in accordance with SFMTA and original vehicle equipment manufacturers standards. The Quality Assurance Unit regularly reviews transit vehicles which have just completed preventive maintenance (PM) inspections to determine if all the steps of the PM inspections have been correctly executed and completed.

6.1.9 Rail Preventive Maintenance

SFMTA's Rail Preventative Maintenance Program ensures the safety of our rail system and the prevention of mechanical failures. Rail preventative maintenance is based on established schedules for preventive maintenance of rail transit vehicles, track, signal, emergency ventilation, and other systems to ensure the state of good repair and the safety of our rail transit system. Details of the preventive maintenance programs are found in the Rail Vehicle Preventive Maintenance, Cable Car Preventive Maintenance, Track Preventive Maintenance, Signal Preventive Maintenance, Automatic Train Control Preventive Maintenance and Fire System Preventive Maintenance SOPs, which are incorporated by reference.

6.1.9.1 Rail Vehicle Preventative Maintenance

SFMTA, per our own internal requirements and those of the original equipment manufacturers, has a vigorous Preventive Maintenance Program for light rail vehicles, streetcars, and cable cars. The Rail Vehicle Maintenance Unit and Cable Car Maintenance Unit regularly inspect all rail vehicles at regular mileage intervals in order to identify and correct

deteriorating conditions and potential hazards. This enables SFMTA to prevent mechanically related safety events as well as vehicle failures.

6.1.9.2 Rail Track and Signal Preventative Maintenance

SFMTA, per the requirements of the CPUC and the Federal Railroad Administration (FRA), has a vigorous Preventive Maintenance Program for its track and signal systems. The Track Maintenance Unit of Maintenance of Way regularly inspects all track on the surface and that in the tunnels and subway at regular intervals in order to identify and correct deteriorating conditions and potential hazards. The Signal Maintenance Unit of Maintenance of Way regularly inspects all signals and components of the train control system in tunnels, subway, and surface at regular intervals in order to identify and correct deteriorating conditions and potential hazards. The Track and Signal Preventive Maintenance Program enables SFMTA to prevent track and signal related safety events and rail system failures.

6.1.9.3 Rail Subway Fire Protection Preventative Maintenance

SFMTA, per the requirements of CPUC and the original equipment manufacturers, has a Preventive Maintenance Program for its Subway Fire Protection System. The Facility Maintenance Unit regularly inspects all subway fire protection systems regular intervals in order to identify and correct deteriorating conditions and potential hazards. This enables SFMTA to prevent failures of fire protection systems during emergencies in the subway.

6.1.10 Bus Preventive Maintenance

SFMTA's Bus Preventative Maintenance Program ensures the safety of our bus fleet and the prevention of mechanical failures. SFMTA, per the requirements of the California Highway Patrol (CHP) and the original equipment manufacturers, has a vigorous Preventive Maintenance Program for its motor coaches and trolleybuses. The Bus Maintenance Unit regularly inspects all buses at regular mileage intervals in order to identify and correct deteriorating conditions and potential hazards. This enables SFMTA to prevent mechanically related safety events as well as vehicle failures. (See Motor Coach and Trolleybus Preventive Maintenance SOPs, which are incorporated by reference.)

6.1.11 Motive Power and Overhead Lines Maintenance

SFMTA ensures the safety of its Motive Power and Overhead Lines System through Preventive Maintenance. The Motive Power and Overhead Lines System provide traction power to SFMTA's light rail, streetcar, and trolleybus systems. Motive Power and Overhead Lines personnel regularly inspect transit power substations and overhead wires on the surface and in our tunnels and subway in order to identify and correct deteriorating conditions and potential hazards. This enables SFMTA to prevent traction power failures and traction power related service interruptions (See Motive Power and Overhead Lines Inspection and Preventive Maintenance SOP, which is incorporated by reference.)

6.1.12 Rail Internal Safety Audits

SFMTA's Rail Internal Safety Audit Program ensures the agency assesses compliance with, and performance of all safety-related activities and responsibilities. SFMTA has historically audited rail operations in accordance with 49 CFR Part 659 and CPUC General Orders. The rail audit program developed under this framework has evolved following the release of 49 CFR Part 674 and will continue to evolve to ensure complete adherence to all CPUC requirements. SFMTA's Safety Division is responsible for overseeing the agency's Internal Safety Audit Program and is expanding of the audit process to include bus operations and maintenance, and paratransit.

6.1.12.1 Overview

In accordance with CPUC GO 164, the Safety Division has developed and implemented an internal auditing program. This auditing program facilitates the audit of all aspects of SFMTA rail operations every three years, ensuring that the agency is proactively identifying any discrepancies between written plans, policies and procedures and their implementation as well as compliance with SMS.

6.1.12.2 Elements Reviewed

SFMTA's internal audit review of elements of the PTASP, including the 23 elements identified in the CPUC Program Standard and detailed in CPUC GOs 164, 172, and 175. Specific policies and procedures reviewed includes the following:

- Safety Plan
  - Safety performance targets
  - Plan development, review, and updates
  - Emergency management program (per Title 49 Section 673.11)
- Safety Management Policy
  - Safety Management Policy Statement
  - Communication of the Safety Management Policy
  - Employee Safety Reporting Program
  - Safety Goals
  - Safety Authorities, Accountabilities and Responsibilities
- Safety Risk Management
  - Safety Hazard Identification
  - Safety Risk Assessment
  - Safety Risk Mitigation
- Safety Assurance
  - Safety Performance Monitoring and Measurement
  - Management of Change
  - Continuous Improvement

- Safety Promotion
  - Competencies and Training
  - Safety Communication
- Safety Plan Documentation and Recording
  - Reference Documents
  - Recordkeeping

6.1.12.3 Responsibilities

The Lead Safety Auditor is responsible for the performance of internal audits. The Lead Auditor and the audit team is organizationally independent of the process and Division being audited. Personnel completing the audit are responsible for providing written reports on audit findings to the System Safety Manager in a timely manner. At the beginning of each calendar year, the Lead Auditor is responsible for developing an audit schedule and providing a copy to CPUC staff. The Lead Auditor notifies the CPUC and provides copies of the checklists to be used in the administration of these internal audits, in compliance with the CPUC's Program Standard, no less than 30 days prior to the commencement of each audit and notifies CPUC staff before starting any audit. (For details of the ISAP, see the Internal Safety Audit SOP).

Once an individual audit is complete, the Lead Auditor develops a draft report, which is provided to the work-unit being audited. If there are disputes concerning the findings, the Lead Auditor and the work-unit's manager meet and resolve those differences. Once the findings are solidified in the draft audit report, the work-unit's manager provides the Lead Auditor with a corrective action plan for approval. Once the Safety Division approves the corrective action plan, the work-unit implements the corrective action. When the corrective action is complete, the Safety Division inspects and verifies completion of the corrective action.

6.1.12.4 Reporting to CPUC

The Safety Audit Unit is responsible for ensuring that the CPUC receives information related to all deficiencies identified during the course of internal audits including corrective actions related to those deficiencies. The Safety Division is responsible for providing updates on the status of all audit-related corrective actions to CPUC staff.

6.1.12.5 Annual ISAP Report

Under SFMTA's Rail ISAP, the Safety Division is responsible for developing an Annual Rail ISAP Report comprised of the individual audit report findings completed during the year. The Lead Auditor submits that report to the SMS Executive who approves and sends the annual audit report to the Accountable Executive. Upon the Accountable Executive's review and approval, the SMS Executive sends the Annual Rail ISAP Report to the CPUC staff on or before February 15.

6.1.13 Bus Internal Safety Audits

SFMTA's Bus Internal Safety Audit Program ensures the agency assesses compliance with, and performance of all safety-related activities and responsibilities. SFMTA has historically audited rail operations in accordance with 49 CFR Part 659 but under SMS and 49 CFR 673 has extended its Internal Safety Audit Program to include bus operations and maintenance.

6.1.13.1 Overview

The Safety Division has developed and implemented an internal auditing program for bus operations and maintenance. This auditing program facilitates the audit of all aspects of SFMTA bus operations and maintenance every three years, ensuring that the agency is proactively identifying any discrepancies between written plans, policies and procedures and their implementation as well as compliance with SMS.

6.1.13.2 Elements Reviewed

SFMTA Internal Safety Audit Program for bus reviews all element of the PTASP including:

- Safety Plan
  - Safety performance targets
  - Plan development, review, and updates
  - Emergency management program
- Safety Management Policy
  - Safety Management Policy Statement
  - Communication of the Safety Management Policy
  - Employee Safety Reporting Program
  - Safety Goals
  - Safety Authorities, Accountabilities and Responsibilities
- Safety Risk Management
  - Safety Hazard Identification
  - Safety Risk Assessment
  - Safety Risk Mitigation
- Safety Assurance
  - Safety Performance Monitoring and Measurement
  - Management of Change
  - Continuous Improvement
- Safety Promotion
  - Competencies and Training
  - Safety Communication
- Safety Plan Documentation and Recording
  - Reference Documents
  - Recordkeeping

6.1.13.3 Responsibilities

The Lead Safety Auditor is responsible for the performance of internal audits. The Lead Auditor and the audit team is organizationally independent of the process and Division being audited. Personnel completing the audit are responsible for providing written reports on audit findings to the System Safety Manager in a timely manner. At the beginning of each calendar year, the Lead Auditor is responsible for developing an audit schedule and providing that schedule to work-unit managers in the bus divisions.

An individual audit covers compliance with specific elements of SMS and requirements of the work-unit SOPs. Approximately one month before any scheduled audit, Safety notifies the work-unit manager and provides the audit checklist, which shows what the audit will cover and what questions the Lead Auditor will ask.

Once an individual audit is complete, the Lead Auditor develops a draft report, which is provided to the work-unit being audited. If there are disputes concerning the findings, the Lead Auditor and the work-unit's manager meet and resolve those differences. Once the findings are solidified in the draft audit report, the work-unit's manager provides the Lead Auditor with a corrective action plan for approval. Once the Safety Division approves the corrective action plan, the work-unit implements the corrective action. When the corrective action is complete, the Safety Division inspects and verifies completion of the corrective action.

Under SFMTA Bus ISAP, the Safety Division is responsible for developing an annual Bus ISAP Report comprised of the individual audit report findings completed during the year. The Lead Auditor submits that report to the SMS Executive who approves and sends the annual audit report to the Accountable Executive.

6.1.14 Outside Audits

SFMTA utilizes outside audit reports to assess its safety performance. SFMTA uses the information from audits, periodically performed by multiple outside agencies, including federal, state, City and County of San Francisco, and contractors, to assess our safety performance. The information from these audits serves as a mechanism to identify and implement enhancements for continuous improvement. When these audit reports identify deficiencies, the Accountable Executive directs the Executive Team to implement corrective actions under the leadership of the Safety Division.

6.1.15 Rail Safety-Event Investigation

The SFMTA has established procedures for investigation of Rail Safety Events, and potential regulatory non-compliance (e.g., GO 175 and 172) and uses the data collected from these investigations to identify new hazards or failures of previously implemented corrective actions.

6.1.15.1 Rail Reporting to CPUC and FTA

6.1.15.1.1 CPUC

In compliance with CPUC's GO 164 and SFMTA Safety-Event Incident Investigating Procedures, within two hours of a reportable Safety Event, the Safety Division notifies our SSOA, the CPUC, by telephone or web-based reporting on the preliminary details of the reportable safety event. Every 30 days, Safety Division submits a summary report (Form V) to CPUC staff detailing the total monthly reportable events. Within 60 days of a reportable event, The Safety Division conducts a comprehensive investigation and reports its findings to CPUC including details of the causal factors. Moreover, the Safety Division also submits monthly safety event data to the Federal Transit Administration via the National Transit Database (NTD).

6.1.15.1.2 FTA

The CPUC notifies FTA's Transportation Operations Center (TOC) in accordance with FTA's *Two-Hour Accident Notification Guide* for any safety event meeting two-hour notification requirements. SFMTA uses CPUC's Web Reporting system, which automatically notifies TOC when SFMTA submits a report meeting the two-hour notification thresholds.

6.1.16 Bus Safety-Event Incident Investigation

SFMTA conducts investigations of bus safety events under its Safety Event Investigation Process to identify causal factors and to identify potential regulatory non-compliance. The SFMTA records the event details in the agency's incident database as well as to identify new hazards or failures of existing corrective actions.

6.1.16.1 Reporting to FTA

The Safety & Security Divisions submit a form S&S40 for reportable events to the National Transit Database. within 30 days of a reportable event based upon its comprehensive investigations of reportable safety events including details of the causal factors.

6.1.17 Rail Video-Based Enforcement and Monitoring

SFMTA's Rail video-based monitoring system ensures the agency monitors its rail system. Each SFMTA revenue rail vehicle, including cable-cars, is equipped with an on-board digital video surveillance system (VSS) that is programmed to record continuously. Cable-Cars have a single camera mounted in the front area near the grip-person. Each streetcar and LRV possesses between eight (8) to fifteen (15) color cameras, one of which is focused on the operator. All cameras are overt (visible) and enclosed in a vandal-resistant housing. Each vehicle is also equipped with two microphones located at each end of the vehicle. SFMTA uses this video-based system to supplement the random monitoring and enforcement of its operating rules. Safety Division staff utilizes the video-based system to observe a random sample of rail

operators per month, to determine compliance with the CPUC General Order 172 and SFMTA Rail Rules. Observations of other rule violations are also tracked and recorded.

Records of the observations from this video-based program are maintained for a period of three (3) years. Video recordings are maintained by the Video Surveillance Unit and made available to CPUC staff upon request.

6.1.18 Bus Event Recorder Video Monitoring

SFMTA's Bus Event Recorder Video program ensures the agency monitors the activity of operators while in revenue service. In addition to the onboard surveillance cameras, which continuously record activity on our buses, SFMTA buses are equipped with event-recorders, which are a proprietary based video monitoring that enables the agency to evaluate operator performance on the road. These event recorders are triggered, and as such begin recording video footage when the bus experienced g-forces of a certain magnitude. SFMTA is notified daily of these triggered events and evaluates them to determine if the operator is complying with applicable rules, training, and procedures. An operator may also manually trigger an event-recorder recording by pressing a button on the equipment. Behavior-based events that trigger the event recorder include a collision, speeding event, rolling stop, fall on board, and sudden stop.

The Safety Division reviews events daily and forwards as applicable to the bus division managers to ensure timely coaching/retraining or discipline for unsafe acts. Conversely, incidents observed wherein an operator is exhibiting outstanding defensive driving techniques result in a commendation to the operator.

6.1.19 Rail Facility Inspections

SFMTA's Rail Facility Inspection program ensure the agency monitors its rail system and maintains safety performance. Under the rail facility inspection program, regular safety inspections are conducted at each operating facility by ISEC personnel to identify and document unsafe conditions, work rules or work practices inconsistent with Federal, State, or local regulations as well as industry standards.

An ISEC rail facility inspection program is essential in order to reduce unsafe conditions that may expose staff and visitors to conditions that could result in injury or illness and expose property or capital assets to damage. It is the responsibility of ISEC to ensure that appropriate, systematic safety inspections are conducted periodically.

ISEC and SFMTA Facilities Maintenance personnel performs inspections on a regular basis of the rail maintenance facilities and shops using established inspection checklists. This includes inspection for hazardous conditions, safety violations, and condition of emergency equipment in accordance with their respective procedures.

ISEC and SFMTA Facilities Maintenance Inspection responsibilities include:

- Inspection of work areas for unsafe conditions, identification of unsafe practices and unhealthy conditions, and reporting and correcting conditions as appropriate
- Maintaining inspection records
- Taking appropriate corrective action(s)
- Reporting unsafe conditions and failures, both physical and operational, to appropriate management so the condition can be corrected and/or operational changes can be made
- Submitting hazard reports and proposed system modifications resulting from inspections to the responsible managers as well as the SMS Executive.

6.1.20 Bus Facility Inspections

SFMTA's Bus Facility Inspection program ensures the agency monitors its bus system to maintain safety performance. Under the bus facility inspection program, regular safety inspections are conducted at each operating facility by ISEC personnel to identify and document unsafe conditions, work rules or work practices inconsistent with Federal, State, or local regulations as well as industry standards.

An ISEC bus facility inspection program is essential in order to reduce unsafe conditions that may expose staff and visitors to unsafe conditions that could result in injury or illness and expose property/capital assets to damage. It is the responsibility of ISEC to ensure that appropriate, systematic safety inspections are conducted periodically.

ISEC and SFMTA Facilities Maintenance personnel perform inspections on a regular basis of the bus maintenance facilities and shops using established inspection checklists. This includes inspection for hazardous conditions, safety violations, and condition of emergency equipment in accordance with their respective procedures.

ISEC and SFMTA Facilities Maintenance Inspection responsibilities include:

- Inspection of work areas for unsafe conditions, identification of unsafe practices and unhealthy conditions, and reporting and correcting conditions as appropriate
- Maintaining inspection records
- Taking appropriate corrective action(s)
- Reporting unsafe conditions and failures, both physical and operational, to appropriate management so the condition can be corrected and/or operational changes can be made
- Submitting hazard reports and proposed system modifications resulting from inspections to the responsible managers as well as the SMS Executive.

6.1.21 Rule of the Week Program

SFMTA's Rule of the Week program ensures the agency operators understand and comply with safety rules while in revenue service. Every two weeks, under the "Rule of the Week" program, Transit Division issues important safety rules to the operators based on recent collision trends, Transit operating division managers' recommendations, or in response to any regulatory agency's findings. Transit Division management uses this program to remind operators of important selected rules. The Transit Division uses the Compliance Check Program to evaluate the operators' compliance with these specific rules.

6.1.22 Fitness for Duty Program

SFMTA is committed to ensuring that employees and contractor personnel are fit for duty. Many factors can affect their overall fitness, including drugs and alcohol, fatigue, prescription drugs, and cognitive distraction.

SFMTA helps to ensure the safety of our transportation system through the Fitness for Duty Program. If an operator exhibits signs of medical conditions, which may affect their ability to safely control a bus or rail vehicle, the Director of Transit or designee must refer the operator to the Wellness Manager of Human Resources. The Wellness Manager schedules a medical exam and consultation with a physician of the Department of Public Heath (SF General Hospital). Until that operator is cleared for service by DPH, they cannot return to service. If DPH determines that the operator has a disqualifying medical condition, SFMTA's Director of Human Resources shall disqualify them from further service.

6.1.22.1 Fatigue Program

Fatigue can contribute to hazardous operations. SFMTA has implemented countermeasures to manage the risk potential. These measures include the following:

- Hours of Service Rules
- Medical Evaluation for Sleeping Disorders
- Awareness training for employees and contractors

6.1.22.2 Medical Monitoring Program

SFMTA has medical standards that apply to safety sensitive positions which include pre-employment medical examination, bi-annual exam and in some cases a follow-up examination to identify any physical or mental deterioration below thresholds established for safe performance of their duties.

In accordance with the requirements of Title 13 of the California Code of Regulations and CPUC GO 143, operators of both buses and rail vehicles must pass a pre-employment medical examination, bi-annual exam and in some cases a follow-up examination, which meets the

requirements of the California Department of Motor Vehicles. SFMTA prohibits operators who cannot pass such an examination from operating both buses and trains.

6.1.22.3 Critical Incident Follow-up, Post Traumatic Stress

After significant incident, such as major safety events, SFMTA offers involved employees' referral to the Employee Assistance Program (EAP)

Transit personnel and emergency responders often face emotional trauma from serious safety events resulting in post-traumatic stress disorder (PTSD). SFMTA provides access to health professionals to help treat PTSD.

6.1.22.4 Substance Abuse Program

SFMTA's Substance Abuse Program applies to both employees and contractor in safety sensitive roles and ensures that the agency has a drug free workplace. The Substance Abuse Program complies with all applicable state and federal regulations, governing workplace anti-drug use and alcohol misuse in the transportation industry. SFMTA monitors training of newly hired safety-sensitive employees to ensure that they receive informational materials on the dangers of substance abuse and the Employee Assistance Program.

These regulations include, but are not limited to the following:

- Department of Transportation (DOT) 49 Code of Federal Regulations Part 40, as amended (Procedures for Transportation Workplace Drug Testing Programs)
- Federal Transit Administration (FTA) 49 Code of Federal Regulations Part 655 (Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations)
- 41 U.S.C. Section 701-707 (Federal Drug-Free Workplace Act of 1988)
- California Government Code Section 8350. Et seq. (Drug-Free Workplace Act of 1990)
- CPUC General Order 143-B

SFMTA trains supervisors to fulfill their responsibilities as relates to the Substance Abuse Policy including assessing if an employee is under the influence of drugs or alcohol, ensuring employees participate in random, post-accident, and reasonable suspicion drug and alcohol screening.

The Transit Division uses information provided by the Substance Abuse Program to remove safety-sensitive employees from the system if they have tested positive on any properly administered drug and/or alcohol test.

6.1.22.5 Cognitive Distraction and Attentional Error

Cognitive distraction refers to an employee or contractor taking his/her mind off the job. One major cause of cognitive distraction is the use of personal electronic devices (PEDs), such as cell phones. SFMTA has implemented a Zero Tolerance, in compliance with G.O 172 for cell phone

and PED use while operating or controlling the operation of transit vehicles, within track zones or other designated areas within the SFMTA system.

6.1.23 Safety Committees

The SFMTA has established a variety of safety committees where safety issues and concerns are reviewed and discussed by staff from Safety, Transit, Streets (including Traffic Engineering), and staff from other Organizational Divisions
These safety committees include:

- Joint Labor Management Safety Committee (JLMS)
- Division Safety Committees (DSC)
- Division Maintenance Safety Committees (DMSC)
- Safety Management Committee (SMC)
- Rules and Procedures Committee (RPC)
- Change Control Board (CCB)
- Chemicals Standards Committee (CSC)
- Fire/Life Safety Committee (FLSC)
- Safety/Security Certification Committees (SSCC)
- Transportation Advisory Staff Committee (TASC)
- Design Review Committees (DRC)
- IT Change Advisory Board Committee (CAB)

6.1.23.1 JLMS Joint Labor Management Safety Committee (JLMS)

SFMTA's Joint Labor Management Safety (JLMS) Committee consists of equal number of frontline employee and management representatives. Pursuant to PTASP regulations, frontline staff representatives are selected by Transport Workers Union (TWU) Local 250A, the labor organization that represents the plurality of the frontline workforce at SFMTA. To the extent practicable, the JLMS Committee must include frontline transit worker representatives from major transit service functions, such as operations and maintenance, across the transit system.

Pursuant to PTASP regulations, the JLMS committee must conduct the following activities to oversee the transit agencies safety performance:

1. Review and approve SFMTA's Public Transportation Agency Safety Plan (PTASP)

2. Set annual safety performance targets for the safety risk reduction program

3. Support operation of the transit agency's safety management system (SMS) by:

    a. Identifying and recommending safety risk mitigations necessary to reduce the likelihood and severity of potential consequences identified through the transit agency's safety risk assessment, including safety risk mitigations associated with

any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program;

b. Identifying safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended, including safety risk mitigations associated with any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program; and

c. Identifying safety deficiencies for purposes of continuous improvement, including any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program.

When the JLMS Committee recommends a safety risk mitigation unrelated to the safety risk reduction program, and the Accountable Executive decides not to implement the safety risk mitigation, the Accountable Executive must prepare a written statement explaining their decision, pursuant to recordkeeping requirements at §673.31. The Accountable Executive must submit and present this explanation to the transit agency's Safety Committee and Board of Directors or equivalent entity.

Please see **APPENDIX E: JLMS CHARTER** for a copy of the JLMS Charter, which details JLMS Committee membership, procedures, and responsibilities as described in 49 CFR 673.19

6.1.23.2 Division Safety Committees (DSC)

SFMTA's monthly Division Safety Committees (DSC), at both the Bus and Rail operating divisions, give employees and division management a forum for exchanging information related to safety issues, programs, policies, and practices. Each DSC meeting consists of two parts. The first part of the monthly DSC meeting is chaired by the Safety staff and covers the safety concerns and safety conditions and potential hazards reported by division employees, tracking of any identified hazard through a Safety Risk Register, discussion safety programs for division employees, facilities, equipment, and operations, and discussion of proposed safety enhancements. The second part of the DSC meeting is chaired by the Service Planning staff and covers, among other things, route and schedule changes and transportation engineering improvements to expedite transit.

6.1.23.3 Division Maintenance Safety Committees (DMSCs)

SFMTA's Division Maintenance Safety Committees at the Bus, Rail, and Maintenance of Way Units provides a forum for maintenance employees to raise critical safety issues for resolution. These meetings are chaired by maintenance staff with Safety Division staff members in attendance.

6.1.23.4 Safety Management Committee (SMC)

SFMTA's Safety Management Committee (SMC) supports the implementation of the SMS. The SMC is chaired by the Chief Safety Officer (or designee) and includes Senior Management from across the agency. The committee meets quarterly, although more frequent meetings can be scheduled as needed. Some of SMC's specific safety tasks include:

- Reviewing programs to continuously improve safety performance and coordinate SMS activities
- Reviewing current safety concerns and safety conditions, including those that may arise from other agency committees
- Discussing regulatory changes and mandates of SMS
- Reviewing, when necessary, any proposed corrective actions and recommendations, including from the Internal Safety Audit Program
- Evaluating hazard resolutions proposed by other organizational units that are not related to Change Management or the activities of the Change Control Board

6.1.23.5 Fire/Life Safety Committee (FLSC)

SFMTA's Fire Life Safety Committee (FLSC) is comprised of SMEs that are responsible for transit fire and life safety issues for the SFMTA bus and rail systems. The FLSC is a forum where SFMTA Divisions and outside agencies such as SFFD, SFPD, BART Police, CPUC, and other emergency response agencies can share transit fire/life safety issues.

The Committee Chair is an administrative facilitator that provides an opportunity for the various SMEs to discuss the system designs, operations, and modifications that meet fire and life safety requirements, such as the National Fire Protection Association (NFPA) 130 "Standard for Fixed Guideway Transit and Passenger Rail Systems." Due to the magnitude and diversity of fire safety issues, the FLSC Committee Chair, should not be considered the lead or sole source of information for all of SFMTA's fire life safety activities. Rather, it is the SMEs on the committee that are the subject matter experts in their respective areas of expertise.

6.1.23.6 Design Review Teams

SFMTA's CP&C Design Review Teams evaluate proposed construction projects to determine if any new hazards are posed by these projects before construction takes place and ensure that projects have eliminated or reduced hazards to an acceptable level upon project completion and that the project meets SFMTA's constructability requirements. Typically, the project CP&C Design Review Team evaluates the project at the 65% and 95% levels of design. After satisfying the internal requirements of CP&C, projects involving relevant changes to SFMTA transit system are submitted to the Change Control Board for approval and executive authorization. CP&C project managers inform the SMS Executive of activities of the DRCs and any approved design changes at the SMC.

SFMTA's Transit Division has established Design Review Teams for major transit capital projects, such as, LRV4. The Transit DRT's are administered by Transit's Manager of Program Delivery and Support.

6.1.23.7 Division Meetings

SFMTA's Division staff meetings are held by all Divisions and ensure the Division Directors communicate important topics to staff including information on the agency's safety performance. Safety issues and concerns are discussed at these meetings. This provides for an opportunity to promote safety performance and continuous improvement throughout the agency. Feedback from employees about what they are experiencing in the field and in the workplace is of vital importance for SFMTA and enables the agency to achieve its safety goals. Employees can describe their experiences and suggest solutions to issues that they encounter. Employees also get updates from their Division Director on safety of the transportation system.

6.2 Management of Change

Change is introduced into SFMTA's transportation system through new rail projects and extensions, rehabilitation of existing rail lines, new transit vehicle purchases, rehabilitation of existing vehicles, revitalization of streets where major rail or bus transit lines are located, introduction of new technology, organizational changes, and new or revised regulations.

The SFMTA has established processes for reviewing these changes and assessing the impact that these changes may have on the safety of our transportation system. These processes are change specific; SFMTA applies these processes depending on the nature of the change. Each of these processes includes reviewing the potential impact to our transportation system's safety that each change may introduce. When through these processes, the SFMTA determines that a change creates a potential hazard, SFMTA will not implement that change until the potential hazard is evaluated through the Safety Risk Management (SRM) process.

SFMTA's lessons learned culture enables the agency to develop new safety controls when necessary and adapt as our transportation environment The specific processes used to evaluate changes to our transportation system are described below:

6.2.1 Configuration Management

SFMTA's Configuration Management process ensures that all changes to facilities, equipment, systems, design elements, etc. are reflected in the "as built" drawings, related documents and detailed records of safety critical fleet changes. Additionally, as technology changes are introduced in SFMTA's transportation system, SFMTA documents the changes to ensure all SFMTA employees have an accurate, up-to-date picture of SFMTA's transportation system always. With all employees having accurate knowledge of the system's configuration, unsafe practices and unintentional introduction of hazards are avoided. This also ensure that project designers are fully aware of the current configuration before contemplating any changes.

6.2.2 System Modification Process

SFMTA's System Modification process ensures proposed modifications to our System are evaluated for hazards. SFMTA does not make changes to the Transportation System without first determining how the change might affect the safety of the bus and rail operations. Individual Divisions proposing system modifications first notify the Safety Division to obtain guidance. Depending on the nature of the change, proposals may require Change Control Board review because they involve a change to the transit system. Changes to service design are reviewed and approved by the Transit Division under the direction of the Director of Transit.

6.2.3 Organization Change

Changes to the organizational structure are submitted to the Executive Team for review to ensure that they do not adversely affect the safety the of the Transportation System. The Accountable Executive approves all such organizational changes.

6.2.4 Safety and Security Certification Process

SFMTA has established its Safety/Security Certification Program for all major transit project, which follows the requirements of FTA Circular 5800.1, and FTA's Manual of Safety/Security Certification of Major Transit Projects and CPUC GO 164, to self-certify that completed projects are safe, secure, and dependable. Under both FTA (bus and rail) and CPUC (rail) regulations, new projects, extensions, vehicle procurements, and installation of new technology involving transit operations may require safety and security certification. Under FTA requirements, new projects or extensions which have costs equal to or in excess of $100 million require full safety and security certification. CPUC, however, approaches it from a safety viewpoint instead of a dollar threshold. If a project impacts any safety-critical systems, even if it is below $100 million threshold, CPUC staff may want the project safety certified. Therefore, SFMTA must consult with CPUC staff to determine whether the project qualifies and must go through safety and security certification**.** (See LRV4 Safety/Security Certification Plan, the Central Subway Safety/Security Certification Plan and Safety/Security Certification SOP)

Each major project has its own Safety/Security Certification Committee (SSCC), which is responsible for overseeing the activities of the Safety/Security Certification process. The goals of the Safety/Security Certification process are to:

- Verify that acceptable safety levels are met or exceeded
- Document the verification of safety standards
- Provide a consistent manner to certify projects
- Ensure all hazards identified during Preliminary Engineering have been designed out or sufficiently mitigated at project completion
- Ensure all threats and vulnerabilities identified during Preliminary Engineering have been designed out or sufficiently mitigated at project completion
- Verify that when the project goes into revenue service, the public can expect the highest practicable level of safety and security.

6.2.5 Change Control Board (CCB) Process

SFMTA's Change Control (CCB) process reviews changes to our transit system so that they do not adversely affect its safety. This Change Control process applies to projects that do not qualify for the Safety/Security Certification process under both FTA and CPUC requirements. To facilitate the process, SFMTA has established its Change Control Board (CCB), which comprised of SME's from throughout the agency. The CCB SME's assess certain proposed changes to the transit system to determine if they may introduce new hazards and/or impact safety performance. The CCB has a review and recommendation role over proposed changes, with final authorization determined by the Accountable Executive. The chair of the CCB administers the meetings and is appointed by the Directors of Transit, Safety and Streets Divisions.

If the CCB determines that a change might impact safety, then the change must be evaluated through the Safety Risk Management process including engaging an SME to determine whether the change introduces a hazard. Relevant changes that are addressed through the CCB process generally include:

- Modifications to the transit system necessary to meet regularity requirements
- Design changes to the existing rail system, including Cable Car
- Changes to rail and overhead line systems (both rail and trolley coach)
- Vehicle design changes
- Changes to Train Operating software or design
- New Technology affecting the transit system

Details of the CCB requirement, membership and process are provided in the Change Control Board SOP.

6.2.6 Rules and Procedures Committee (RPC)

SFMTA's Rules and Procedures Committee (RPC) brings together subject matter experts (SMEs) from across the agency to ensure that operating and maintenance rules and procedures that affect safety are reviewed, updated when necessary, and approved to comply with regulatory and industry standards.

The RPC Administrator is responsible for maintaining current version of all the SMS SOPs, training manuals, and operator rule books. The RPC Administrator should not be considered the lead or sole source of information for all SFMTA Standard Operating Procedures. Rather, it is the SMEs on the committee that are the subject matter experts in their respective areas of expertise.

6.2.7 Information Technology Change Advisory Board (CAB)

SFMTA's Information Technology Change Advisory Board ensures monitoring of changes to our transportation information and control systems, including SFMTA's Automatic Train Control System (ATCS). Pursuant to the SFMTA IT Change Control Policy and Procedure, the CAB meets weekly under the direction of the Chief Technology Officer who serves as the Change Manager and has ultimate responsibility for the impact software and hardware changes have on SFMTA transit operations.

Under the CAB process, IT Change Coordinators are responsible for planning and coordinating all phases of software and hardware changes to the transit system from initiation to acceptance and documentation ensuring that the risks associated with software and hardware changes are controlled and minimized.

6.2.8 Procurement Process

SFMTA's Procurement process ensures that materials and services obtained by SFMTA maintain the safety standards of the transit system. This involves including safety requirements in contracts and obtaining Safety Data Sheets (SDS). The SDS include information on the properties of each chemical, the physical, health, and environmental health hazards, protective measures, and safety precautions for handling, storing, and transporting the chemicals.

The SFMTA SDS Program has established specific procedures for the acquisition and dissemination of information regarding hazardous materials. Approved SDS information can be obtained on-site at the facility where the product is used. Materials are evaluated by the Safety Division's Industrial Safety and Environmental Compliance unit (ISEC) for safety implications prior to purchase and/or use. When new materials or chemicals are delivered, the materials management unit verifies via SFMTA's enterprise asset management software system, that the item delivered has been previously approved. The facilities where the product is used must meet applicable state, federal, and local regulations for the proper labeling, storage, handling, and disposal of hazardous materials including documentation and record keeping requirements.

The procurement of transit vehicle parts must follow established procedures. Parts may not be substituted without prior authorization of Materials Management and Fleet Engineering and only if the substitution will not adversely affect the safety of any system.

Functions of the Materials Management Unit include:

- Ensure procurement process complies with established procedures for evaluating materials and products for use by SFMTA
- Ensure that products purchased meet SDS requirements, copies of SDS are delivered with all materials and that materials undergo an evaluation before purchase by the ISEC Unit is performed
- Develop, maintain, and utilize a list of hazardous materials and equipment; procurement enforces restrictions and other procurement procedures
- Adhere to safety procedures as defined by ISEC related to hazardous substance acquisition, handling, labeling, storage, disposal, and record keeping.
- Ensure that SDS requirements are met, and copies maintained for all materials
- Ensure that contractors meet requirements related to the safety of SFMTA employees, property and the public

6.2.9 Transportation Advisory Staff Committee (TASC)

The SFMTA participates in the TASC, an interdepartmental committee that reviews proposed transportation-related legislation or street changes so that they do not adversely affect the safety of our transportation system. The purpose of this committee is to provide a regular forum for key City of San Francisco agencies to review and comment on proposed changes to the public right-of-way. While this advisory board does not approve or disapprove items

presented, the goal is to resolve any objections before item move forward. The TASC process first informs various SFMTA units of pending changes and traffic legislation. After that review, items are presented to outside departments such as San Francisco Planning, Public Works, and Police and Fire Departments for review. Proposed street changes are reviewed through TASC, which include, but are not limited to, certain color curb designation, lane striping/re-configuration, speed limits, bicycle parking, bicycle street parking, pedestrian and traffic signals, traffic and parking signage, and traffic calming and pedestrian safety measures. Any proposal presented at TASC must first undergo a staff review process, which includes review by a Streets Division Senior Engineer and City Traffic Engineer (or designee).

6.2.10 Chemical Standards Committee (CSC)

SFMTA's Chemical Standards Committee ensures for the qualification and introduction of new chemical commodities and the disqualification of existing chemicals. Information on chemicals is shared and oversight is provided by the CSC. This Committee is chaired by the ISEC Safety Officer. The CSC, along with Materials Management staff, reviews all requests to set up chemical products to ensure compliance with SFMTA's requirements. The CSC also reviews the current inventory catalog to confirm the chemical requested does not already exist in the SFMTA inventory under another name. The CSC Chair provides the SMS Executive with a monthly report of the committee's activities.

Chemical Standards Committee Functions:

- Control Chemical Inventory with Materials Management
- Reviews Procurement requests and purchases of new produces – with Materials Management
- Conducts Quality Assurance of new chemical products
- Reviews Safety Data Sheets for new products – with IS EC
- SDS Documentation – ISEC maintains SDS for all users and users maintain SDS onsite
- Maintenance Bus/Rail (Users/Testing)
- General Services Bus, Rail (Users/Testing)
- Material Planning (Set order points for divisions) – Material Control
- Industrial Safety & Environmental Compliance (Environmental Impact and Guidelines)

6.2.11 Bus Acceptance Process

SFMTA's Bus Acceptance process ensures that all new buses accepted into our fleet meet all SFMTA safety standards. Fleet Engineering and Acceptance Testing groups lead this process. Under the Bus Acceptance process, buses are inspected and accepted into the SFMTA Bus Fleet based on established industry safety standards. The goal is to verify that safety standards are met or exceeded in the design before being introduced into revenue service and do not introduce hazards into the System. A quarterly progress report is made available to the SMS Executive from Transit to provide the update of the Bus Acceptance process. (See Bus Acceptance SOP)

6.3 Continuous Improvement

Continuous improvement processes ensure SFMTA eliminates or mitigates to a level of "As Low as Reasonably Possible" identified safety risks. This critical element of the agency's SMS facilitates the tracking of safety risk mitigations and corrective actions through Monitoring Mitigation Plans (MMPs) and Corrective Action Plans (CAPs) from development through implementation, verifying that all identified deficiencies are appropriately addressed, MMPs and CAPs are developed by SME's and their work units based on information collected through the agency's safety performance monitoring and measurement processes and reflect the agency's commitment to continuously work to avoid or reduce safety risk and correct non-conformances with respect to our procedures and rules. The Safety Division staff continually monitor SFMTA operations to determine if any MMPs or CAPS developed to mitigate safety risks are ineffective, inappropriate, or not implemented as intended. In such cases the Safety Division staff will work with the affected SME or work unit and if required, the CPUC, to evaluate the implementation of alternative approaches or mitigations. If a deficiency is identified, SFMTA, under the direction of the Accountable Executive, develops and carries out a new corrective action to correct this deficiency.

6.3.1 Mitigation Monitoring Plans

Safety risk mitigations address the potential consequences of transit service delivery through the:

- Elimination of hazards
- Reduction of the likelihood of the potential consequences of hazards; and/or
- Reduction of the severity of the potential consequences of hazards if they were to occur.

Mitigation Monitoring Plans (MMP's) are a process used by SFMTA to systematically track the implementation of safety risk mitigations. Such mitigations may be implemented in response to safety hazards identified through employee reporting, event investigations and safety performance monitoring and measurement activities. For example, the refresher training of one or more employees on existing SFMTA rules and procedures is a safety risk mitigation activity.

The Safety Division is responsible for approving and tracking all MMPs.

6.3.2 Corrective Action Plans

Corrective Action Plans (CAPs) address deviations or violations in rules, polices, plans, or procedures. CAPs also address resolution or elimination of safety risks identified through the Safety Risk Assessment Process. At a minimum, all non-compliance findings identified through SFMTA internal audits and CPUC audits must be addressed using the CAP process in accordance with CPUC GO 164.

Sources of findings requiring the development of a CAP include, but are not limited to:

- Event investigations
- Audits
- Reviews
- Inspections
- Rules compliance testing
- Operational or mechanical failures
- NTSB reports/
- FTA advisories
- CPUC mandates

The Safety Division is responsible for approving and tracking all CAPs and receiving CPUC approval where applicable. To be considered for approval, each CAP must identify the action to be taken, an implementation schedule, and the SME and work unit responsible for implementing. Once approved by the Safety Division, the CAP will be logged in the Employee Safety Reporting Program database.

6.3.3 Safety Culture Assessment

It is important for SFMTA to continually assess its effectiveness on overall safety in order to ensure continuous improvement of the safety of our transportation system. We assess our safety culture using the following:

- Surveys of employee attitudes, opinions, and perceptions about safety
- Written questionnaires
- Face-to-face interviews
- Focus group interviews
- How SFMTA views errors and mistakes
- Ability to focus on improving safety instead of assigning blame
- SFMTA's proactive stance toward safety

6.3.4 Rail Efficiency Testing

SFMTA's Rail Efficiency Testing Program, led by Safety and required by GO 143, ensures that SFMTA employees have proper knowledge and application of rail operating rules and procedures. The Safety Division is responsible for implementing the Rail Efficiency Testing Program.

At the beginning of each year, Safety Division identifies several specific efficiency test scenarios which are scheduled throughout the year to test the skills of rail personnel
The Rail Efficiency Test Program is non-punitive, meaning no discipline will be implemented, because the goal is to identify operators who may need reminders concerning the application

of appropriate rules, training and SOPs. In the event that an employee performs unsatisfactorily, a re-test of the employee is scheduled within 30 days.

6.3.5 Bus Efficiency Testing

SFMTA's Bus Efficiency Testing Program, led by Safety, ensures that SFMTA employees have the proper knowledge and application of bus operating rules and procedures. The Safety Division is responsible for implementing the Bus Efficiency Testing Program.

At the beginning of each year, Safety Division identifies several specific efficiency test scenarios which are scheduled throughout the year to test the skills of bus personnel. The Bus Efficiency Test Program does not involve discipline because the goal is to identify operators who may need reminders concerning the application of appropriate rules, training and SOPs. In the event that an employee performs unsatisfactorily, a re-test of the employee is scheduled within 30 days.

6.3.6 Rail Compliance Check Program

SFMTA's Rail Compliance Check Program, led by Transit and required by GO 164, monitors employee's conduct to ensure adherence to specific rules, procedures and skills while performing their regular work duties. Rail Compliance Checks include monitoring of rail operators, transportation controllers, and maintenance personnel. Results of compliance checks are recorded in the Employee Safety Reporting Program database.

Under the Compliance Check Program, Transit identifies a rule or procedure to be monitored for compliance. An individual compliance check includes observations made on how the employee adheres to an existing rule or procedure in the execution of their duties. If the employee fails to follow the appropriate rules, training, or SOP, this is communicated to the appropriate manager, for discipline or training. On-the-scene coaching may also occur, if appropriate.

While the Compliance Check Program is led by Transit, the Safety Division audits the Compliance Check Program to ensure it is administered consistency and effectively and the findings are reported to the SMS Executive and the Transit Division.

6.3.7 Bus Compliance Check Program

SFMTA's Bus Compliance Check Program, led by Transit, monitors employee's conduct to ensure adherence to specific rules, procedures and skills while performing their regular work duties. Bus Compliance Checks include monitoring of bus operators, transportation controllers, and maintenance personnel. Results of compliance checks are recorded in the Employee Safety Reporting Program database.

Under the Bus Compliance Check Program, Transit identifies a rule or procedure to be monitored for compliance. An individual compliance check includes observations made on how the employee adheres to an existing rule or procedure in the execution of their duties. If the employee fails to follow the appropriate rules, training or SOP; this is communicated to the appropriate manager, for discipline or training. On-the-scene coaching may also occur, if appropriate.

While the Bus Compliance Check Program is led by Transit, the Safety Division audits the Compliance Check Program to ensure it is administered consistency and effectively and the findings are reported to the SMS Executive and the Transit Division.

6.3.8 Lessons Learned/Learning Culture

SFMTA fosters a "Lessons Learned Culture" to help establish a safety culture that learns from experience as documented in reports, audits, investigations, and other data sources. Analysis of the data changes.

7 SAFETY PROMOTION

SFMTA promotes safety through its Training and Communication Programs. The Agency offers a variety of safety training courses to ensure the safety of our employees, contractors, and the transportation system. SFMTA uses various methods to communicate safety and safety performance information to employees. Executive Management promotes the SFMTA's positive safety culture by visibly demonstrating their commitment to the SMS. SFMTA fosters active, open, and ongoing communication about safety. Employees are encouraged to communicate safety conditions and concerns to management, and in turn, management is required to respond timely to employees, mitigate hazards, and provide training, messaging, or other communication to promote a safety culture. Through this open dialogue, hazards are identified and analyzed, and employees are informed of what risks they may encounter and what SFMTA is doing to eliminate or mitigate the risk.

The SFMTA has established and implemented a comprehensive safety training program for all agency employees and contractors directly responsible for safety oversight in the agency's public transportation system. The training program includes refresher training, as necessary. SFMTA managers verify overall compliance with training, certification, and re-certification requirements.

7.1 Competencies and Training

SFMTA's comprehensive safety training program for all employees and contractors directly responsible for safety oversight ensures the safety of our transportation system. The training program includes refresher training, as necessary.

7.1.1 Designated Employees

SFMTA has designated personnel directly responsible for safety oversight – defined as individuals whose primary job function includes the development, implementation, and review of the agency's safety plan, and/or investigation of Safety events on behalf of CPUC - are trained on the SMS principles which incorporates curriculum from the Public Transportation Safety Certification Training Program (PTSCTP), (49CFR672.13, 49CFR673.29 and 49CFR674.35) – over the three-year period following their designation. The curricula include the following Transportation Safety Institute (TSI) courses.

- SMS Awareness (one hour, e-learning)
- Safety Assurance (two hours, e-learning)
- SMS Principles for Transit (20 hours) and
- Transit Safety and Security Program (TSSP)
    - Transit Rail System Safety (36 hours)
    - Effectively Managing Transit Emergencies (32 hours) and
    - Transit Rail Incident Investigation (36 hours)

Following the conclusion of this training, designated personnel will complete refresher training that includes, at a minimum, one hour of safety oversight training.

7.1.2 Designated Contractors

Any contractors that SFMTA determines are directly responsible for the safety of the agency's systems must provide comprehensive safety training to their employees in accordance with their job function (including refresher training as necessary). Contractor safety training requirements may be contractually prescribed and may include requirements for training on site or project specific health and safety plans. The assigned internal project manager is responsible for regularly monitoring contractor compliance with SFMTA safety training requirements. All contractors performing work on or near the SFMTA rail system must also undergo the SFMTA RWP training.

7.1.3 Senior Management Personnel

SFMTA Transit management – defined as members of the Executive Team and Senior Management Team involved in transit operations - are trained and familiarized on SMS principles.

7.1.4 All Other Employees

Safety will provide all other employees with SMS Training either during new employee orientation or computer-based training.

7.1.5 Rail Operator Training

SFMTA's Transit Division has established and implemented a Rail Operator Training Program to provide training to transit operators in Light Rail Vehicles (LRVs), Historic Streetcars (HSCs), and Cable Cars**.** Training in each of these vehicles constitutes a separate training program with its own standards and requirements. These training programs meet the requirements of CPUC General Orders 164 and 143. In compliance with GO 164 and GO 143, rail operators for each mode (LRV, HSC, and Cable Car) must complete refresher training at least every two years. The Rail Training Unit records all training provided to rail operators in the Employee Safety Reporting Program database. A list of required training for Rail personnel can be found in APPENDIX F: TRANSIT DIVISION TRAINING PROGRAMS. Rail operator training records are maintained in the Employee Safety Reporting Program database.

7.1.6 Bus Operator Training

SFMTA'S Transit Division provides Bus Operator Training to new Bus Operators in Motor Coach and Trolleybus. Training in each of these bus vehicles constitutes a separate training program with its own standards and requirements. The Bus Operator Training covers defensive driving,

rules pertaining to safe vehicle operation, pre-trip and pre-operation inspections, emergency procedures, and injury and illness prevention. Re-training is provided to operators who have been involved in a safety event or failed an efficiency test conducted by the Safety Division staff. The Bus Operator Training Unit keeps records of all training provided to bus operators in the Employee Safety Reporting Program database. A list of required training for Bus personnel can be found in **APPENDIX F: TRANSIT DIVISION TRAINING PROGRAMS**. Bus operator training records are maintained in the Employee Safety Reporting Program database.

7.1.6.1 Verification of Transit Training

SFMTA'S Transit Division provides bus operators with an additional eight hours of training per year as required under the California Verification of Transit Training Program (VTT). This training is based on the Annual Verification of Transit Training Instructor's Manual and Syllabus maintained by the Transit Division Bus Operator Training Unit. VTT training records are maintained in the Employee Safety Reporting Program database.

7.1.7 Personal Electronic Devices Zero Tolerance Policy

SFMTA maintains a zero-tolerance policy, which prohibits the use of personal electronic devices (PEDs). This policy is in accordance with the requirements of CPUC General Order 172, Section 5. All operators and other safety sensitive employees are trained on the zero-tolerance policy and applicable rules. The policy prohibits the use of PEDs by employees and contractor personnel responsible for operating or controlling revenue and nonrevenue vehicles or performing work on or near the SFMTA rail track zone.

The "Personal Electronic Device (PED) Zero Tolerance" notice prohibits and outlines the policy regarding the use of PEDs.

SFMTA uses a video-based monitoring system in the operating cabs and other areas of each LRV, streetcar, cable car, motor coach, and trolleybus. This system supplements the random monitoring and enforcement of its operating rules, policies, and procedures, including those that govern the use of electronic devices in compliance with General Order 172. A representative sample is monitored and logged by Safety as well as reviewed when there is a derailment, collision, complaint against the operator, report of noncompliance with personal electronic device policy. The video-based enforcement and monitoring log is maintained for a period of three (3) years.

7.1.8 Rail Vehicle Maintenance Training

SFMTA's Maintenance Training Unit provides training to all vehicle maintenance personnel in the LRV and Historic Streetcar modes. The Cable Car Maintenance Superintendent provides all training for vehicle maintenance personnel in the Cable Car mode. Rail maintenance training provides employees with information of how to effectively repair mechanical problems common to the specific rail vehicle. In addition, this training provides employees with the

knowledge and skills to perform preventive maintenance designed to prevent equipment failures. Rail maintenance training records are maintained in the Employee Safety Reporting Program database.

7.1.9 Bus Vehicle Maintenance Training

SFMTA's Maintenance Training Unit provides training to all vehicle maintenance personnel in Motor Coach and Trolleybus modes. The maintenance training provides employees with information on how to effectively repair mechanical problems common to the specific bus vehicle. In addition, this training provides employees with the knowledge and skills to perform preventive maintenance designed to prevent equipment failures. Bus maintenance training records are maintained in the Employee Safety Reporting Program database.

7.1.10 Rail Cal/OSHA Training

SFMTA provides Cal/OSHA training to ensure the safety of our rail maintenance employees and contractors. The ISEC Unit conducts all Cal/OSHA- required training including Injury Illness Prevention. Topics include CPR/first aid, fall protection training, hearing conservation, confined space entry, and blood-borne pathogens. Rail Cal/OSHA training records are maintained in the Employee Safety Reporting Program database.

7.1.10.1 Rail Cal/OSHA Supervisor Safety Training

SFMTA's ISEC conducts Cal/OSHA Supervisor Safety Training for rail supervisors. Training includes supervisors' responsibility in implementing the Cal/OSHA Injury and Illness Prevention Program. All rail supervisors must complete this training at least once during their employment. Rail Cal/OSHA Supervisor Safety Training records are maintained in the Employee Safety Reporting Program database.

7.1.11 Bus Cal/OSHA Training

SFMTA provides Cal/OSHA training to ensure the safety of all our bus maintenance employees and contractors. The ISEC Unit conducts all Cal/OSHA required training including Injury Illness Prevention. Topics include CPR/first aid, fall protection training, hearing conservation, confined space entry, and blood-borne pathogens. Bus Cal/OSHA training records are maintained in the Employee Safety Reporting Program database.

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SFMTA's ISEC conducts Cal/OSHA Supervisor Safety Training for bus supervisors. Training includes supervisors' responsibility in implementing the Cal/OSHA Injury and Illness Prevention Program. All bus supervisors must complete this training at least once during their

employment. Bus Cal/OSHA Supervisor Safety Training records are maintained in the Employee Safety Reporting Program database.

7.1.12 Roadway Worker Protection Training

SFMTA provides Roadway Worker Protection (RWP) training to all employees and contractors working on or within a certain distance to the SFMTA Rail System in accordance CPUC G.O. 175A and SFMTA's Roadway Worker Protection Plan (RWPP). The purpose of RWP training is to:

- Provide a safe working environment for Roadway Workers granted access to SFMTA Right-of-Way (ROW). Help ensure the safety of all persons working on or about the rail systems

SFMTA provides Right-of-Way Access/Permit & Clearance Program to ensure the safety of rail roadway worker employees and contractors. Prior to performing work on SFMTA's bus or rail right-of-way, approval for the work proposed to be conducted must be attained from the TMC Senior Operations Manager (SOM) (or designee). The TMC Senior Operations Manager determines if the work to be performed will impact the movement of rail or bus transportation. In addition, TMC SOM will determine if the work necessitates any restrictions, and/or flagging, and/or reduced train speed, and if Roadway Worker Protection (RWP) training is necessary. The RWP class can be conducted by various SFMTA departments and divisions which require the need of roadway workers. This includes but is not limited to: Maintenance Training Unit (MTU), Operator Training, Transit Division, Maintenance of Way (MOW), Security, and Capital Programs and Constructions (CP&C). This RWP training is to familiarize wayside workers with the operating rules and safety hazards that they need to be aware of along the rail right-of-way. Regardless, of whether the work is to be performed during revenue or non-revenue hours, all workers must follow the requirements of the Permit & Clearance Procedures administered by Transportation Management Center (TMC).

Safety Division is responsible for creating the RWP training program in adherence to CPUC GO 175A and provide training for the RWP trainers in other divisions or departments. RWP training records are maintained in the Program database.

7.1.13 Practical Communication Tools for Safety and Service (PaCT)

The SFMTA has incorporated Practical Communication Tools for Safety and Service (PaCT) within SFMTA's training program for public facing employees. The goal of the program is to enhance the customer experience by helping employees who serve the public to become more comfortable, confident, supported, less stressed and ultimately safer. PaCT is co-designed by Operators, public facing team members, and supervisors. This is a priority training for frontline staff on an annual basis.

The PaCT training includes four training modules. The third module specifically focuses on de-escalation training. The PaCT module are as follows: 1. Creating and Maintaining a Positive Mindset 2. Enhancing Awareness & Embodying a Spirit of Service 3. De-escalating Challenging Situations 4. Building Resilience in Oneself and Others

7.1.13.1 PaCT Training Modules:

Module 1 - Create and Maintain a Positive Mindset
Re-igniting pride felt by our public-facing employees by recognizing the importance, value and meaning of their work. This module sets the tone for shared learning with a focus on mindfulness, collaboration and teamwork, emotional awareness, and self-care. Activities will introduce the universal standards of behavior, the de-escalation model beginning with prevention, and the concepts of how positive interactions create a positive work environment and minimize escalations. Desired outcomes of this module include the employees feeling supported in the workplace and having a renewed motivation to do this work.

Module 2 - Enhance Awareness and Embody a Spirit of Service
With an innate focus on safety, awareness skills are sharpened. Word choices, tone of voice, and body language skills are applied and segmented to those that either help or hinder an interaction with the public. Participants learn how our triggers came from our past experiences, and practice "keeping the good - letting go of the bad" and building new strategies that result from learning from each other. Function-specific standards are introduced and applied to personalize the activities to the unique roles.

Module 3 - De-escalate Challenging Situations
Practicing real-life situations and problem solving together! Though simulations and experiential learning in a safe space, participants practice, make mistakes, re-think approaches, and learn best practices from each other. This module includes pre-identified challenging scenarios and case studies for role play and practice. Skills are sharpened around keeping oneself safe, conflict resolution, how to deliver bad news in a service-oriented way, and de-escalation tactics.

Module 4 - Build resilience in oneself and others
Taking care of self before, during and after work experiences. Following steps that give staff an avenue to decompress, recover, and re-focus. Understanding tools and access to wellness programs that enhance resilience. Recognizing impact on others and building listening skills for active engagement in what others are communicating. Participants develop a personal plan for resilience.

7.2 Safety Communication

The SFMTA communicates safety and safety performance information throughout the organization conveying information on hazards and safety risks relevant to our employees' roles and responsibilities. The SFMTA informs employees of safety actions taken in response to

reports employees have submitted through our Employee Safety Reporting Program. Miscellaneous Reports may be accessed electronically as well as in a paper format.

The PTASP is available to all employees. It is maintained in an accessible electronic file, available on the SFMTA website.

SFMTA believes effective communication is important to build a more robust safety culture. SFMTA uses various methods to communicate safety and safety performance information to employees. As such, the SFMTA communicates safety and safety performance information throughout the agency using the following methods.

7.2.1 New Hire Orientation On-Boarding Safety Presentation

SFMTA provides New Hire Orientation to all new SFMTA employees and provides them with an "Employee Handbook" to communicate, among other things, the importance of safety. The Handbook contains a copy of the Safety Management Policy, outlining the SMS, informing employees of their responsibility to report safety concerns and conditions, and if desired can report confidentially without fear of reprisal. The Orientation also includes a safety training presentation by the SMS Managers. New Hire Orientation records are maintained in the Employee Safety Reporting Program database.

7.2.2 Safety Training

SFMTA's Transit Division provides a Safety Training Program for their employees which includes the communication of the importance of safety and instruction on identifying hazards that an employee may reasonably expect to encounter while performing their assigned tasks. The Safety Training Program records are maintained in the Employee Safety Reporting Program database.

7.2.3 Craft/Job Specific Training

SFMTA conducts training pertinent to the tasks that employees or contractors will perform, including those for maintenance of way workers, and customer service training. The training includes communicating the importance of safety and provides instruction on identifying hazards that these employees may reasonably expect to encounter. The Craft/Job Specific Training records are maintained in the Employee Safety Reporting Program database.

7.2.4 Safety Recurring Messaging

SFMTA uses video monitors at all transit operating divisions to communicate the importance of safety. These contain rolling safety messages, videos, or PowerPoint presentations to remind employees of various hazards they may encounter or special procedures they need to know in

order to perform their duties safely. The Agency will ensure that the Division Monitors are operational.

7.2.5 Safety Messaging

SFMTA uses industrial safety banners or agency facility video monitors to communicate the importance of safety to employees and contractors. For example, Safety Banners are used to count the number of days without a Safety Event, or number of days without a workplace injury that the division has experienced. The Agency will ensure that the division monitors are operational.

7.2.6 Safety Bulletin Boards

SFMTA provides Safety Bulletin Boards throughout the Agency, including all work areas, to communicate the importance of safety. These are located in conspicuous areas so that important safety information and results of hazard investigations can be communicated to employees. These boards contain applicable safety regulations, safety policies, and safety performance measures.

7.2.7 Division Safety Committees (DSCs)

SFMTA utilizes DSC meetings to communicate important safety concerns to employees and division management. The DSCs provide a forum for exchanging information related to safety issues, hazards, programs, policies, and practices. Each operating division has a DSC with the Safety Division staff as Chair.

7.2.8 Division Meetings

SFMTA utilizes Division Meetings to communicate the importance of safety and help the Agency comply with SMS Safety Communication requirements. All Divisions of the SFMTA hold regular meetings with their staff. Safety issues and concerns are an important agenda item at these meetings and provide an opportunity for employees at the various levels of the Agency to promote safety performance and continuous improvement.

7.2.9 Employee Work-Place Safety Program

The Employee Work-Place Safety Program consists of several programs designed to comply with Cal/OSHA requirements including:

7.2.9.1 Injury and Illness Prevention Program (IIPP)

SFMTA has developed and implemented an Injury and Illness Prevention Program (IIPP) to maintain a safe and healthy workplace for employees. The IIPP manual includes the following:

- Management commitment/assignment of responsibilities
- System for assuring employee compliance with safe work practices
- Safety communications system with employees
- Scheduled inspections/evaluation of workplace hazards
- Investigation of employee injuries and illnesses
- Procedures for correcting unsafe/unhealthy conditions
- Safety and health training and instruction

SFMTA's IIPP is designed to obtain input from employees and coordinate with labor unions and their local representatives. Contractors are required to conform to industrial and occupational safety program requirements.

7.2.9.2 Safety Payday Communication

SFMTA provides Safety Payday Communications to all SFMTA employees to communicate important safety messages. Some of the topics include keeping safe in the workplace, avoiding heat exhaustion, mosquito bite prevention and safety, and general safety standards.

7.2.9.3 Safety Cal/OSHA Training Program

SFMTA utilizes the Safety Cal/OSHA Training Programs, described above, as an important venue for communicating Cal/OSHA-required industrial and work-place safety to employees

7.2.9.4 Hazardous Material Communication Program

SFMTA's Hazard Material Communication Program provides employees with information and training on chemical hazards, and procedures to control chemical hazards and exposures, within the workplace.

Procedures are in place to control hazards associated with procurement, storage, transfer, use, and disposal of hazardous substances. These procedures also address record keeping, and reporting requirements. Hazardous Material Plans are developed for each facility.

The Hazard Material Communication Standard Orientation includes training/or information on:

- Cal/OSHA Hazard Communication Standards
- Safety Data Sheets (SDS)
- Physical Health effects of hazardous materials used at SFMTA

7.2.9.5 Voluntary Protection Program (VPP)

The ISEC is leading the effort to become Cal/OSHA VPP-certified by doing safety awareness programs ("I am all in"), initiating Supervisor involvement in safety, Supervisor Training Program, safety campaigns, heightened safety awareness from front line staff to the executives.

7.2.9.6 Infectious Disease Program

The agency shall implement guidelines and best practices in the public transportation system as soon as practical after they are amended. The transit agency shall implement transit-specific best practices including providing the appropriate PPEs to address emerging infectious diseases. The COVID-19 pandemic has shown how an infectious disease emergency can affect the workplace and transit systems. Acknowledging that infectious disease concerns may emerge in the future and in accordance with U.S. Code Title 49 §5329(d)(1)(D), the SFMTA monitors regulations and guidance from the Centers for Disease Control and Prevention (CDC), California Department of Public Health (CDPH), San Francisco Department of Public Health (SFDPH), the California Division of Occupational Safety and Health (Cal/OSHA) and other relevant organizations. Where necessary, that SFMTA will implement measures to minimize infectious disease spread based on the context of the disease and guidance/regulations from relevant organizations. This is in addition to ongoing infectious disease preventative measures established in the Agency's Injury and Illness Prevention Program (IIPP) and COVID Prevention Plan.

8 SAFETY PLAN DOCUMENTATION AND RECORDS

8.1 Reference Documents

SFMTA maintains copies of its Standard Operating Procedures (SOPs), which document the processes and activities used to ensure implementation of SMS. These SOPs include but are not limited to:

- Employee training
- Hazard Analysis and Risk Assessment
- Safety-Event Investigations
- Compliance Checks
- Efficiency Tests
- Facility Inspections
- Performance Measure Results

8.2 Recordkeeping

SFMTA maintains documents that set forth our PTASP, including those related to the implementation of its SMS and results from SMS processes and activities. Many of these documents which are included by whole and by reference describe the programs, policies, and procedures that SFMTA uses to carry out our PTASP. These documents are made available upon request by the Federal Transit Administration or other Federal entity, or the CPUC or State Safety Oversight Agency jurisdiction. SFMTA maintains these documents in accordance with our document retention procedures, but at a minimum for three years after they are created.

SFMTA records results achieved from our SMS processes and activities. The records are legible, identifiable and traceable to each process or activity. All SMS records are maintained for a minimum of three years. These records include, but are not limited to:

- Employee training
- Hazard Analysis and Risk Assessment
- Safety-Event Investigations
- Compliance Checks
- Efficiency Tests
- Facility Inspections
- Performance Measure Results

8.2.1 Training and Certification Programs

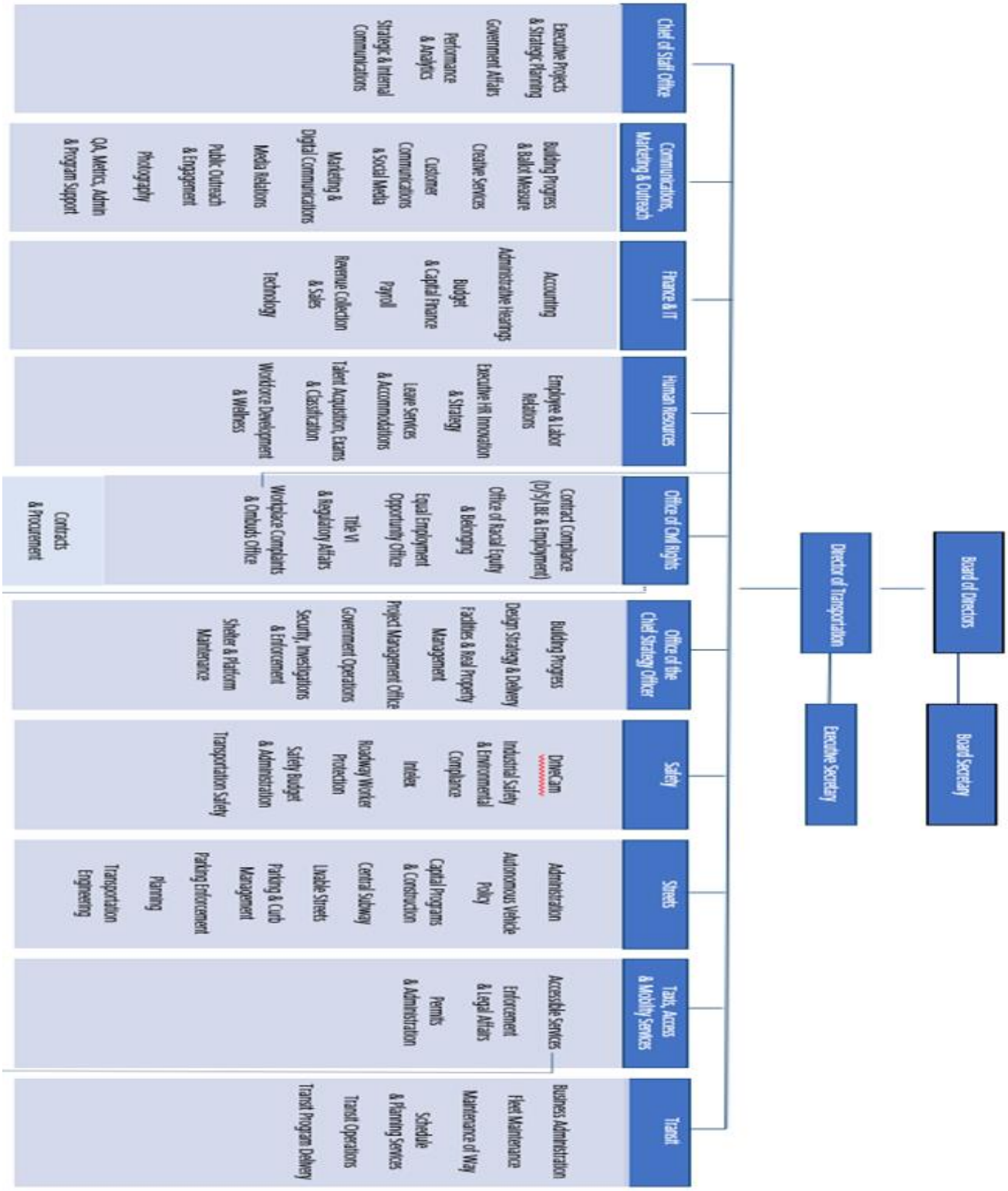
All certification and recertification programs require written exams to verify knowledge; the organizational entities responsible for the development and implementation of training

programs are also responsible for the establishment of minimum scores for certification and re-certification.

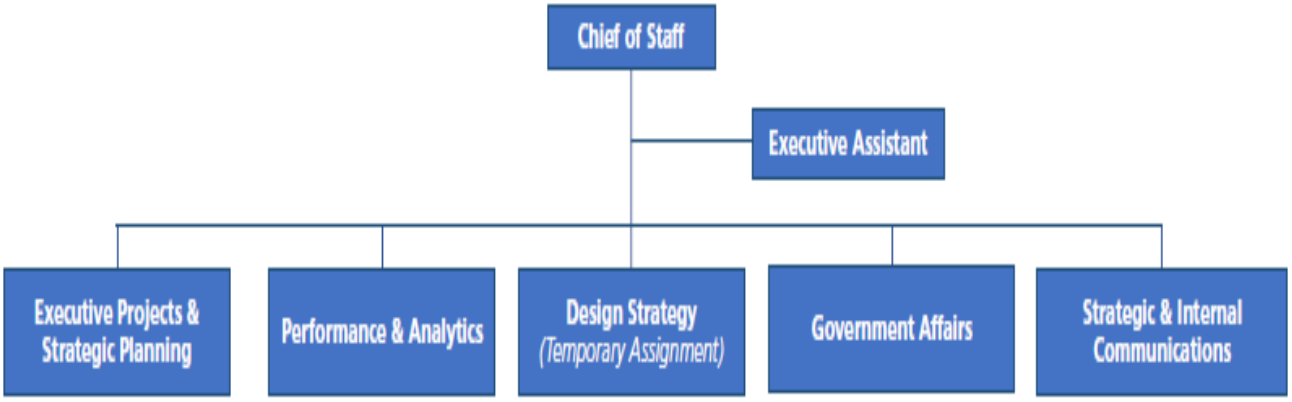
Maintenance Training maintains training records for all LRV, Historic Streetcar, motor coach, and trolleybus mechanics and technicians. The Cable Car Division maintains all training records for Cable Car vehicle mechanics and machinery technicians. Operator Training Unit maintains training records for all LRV, Historic Streetcar, Cable Car, motor coach, and trolleybus operators. A database of Roadway Worker Protection (RWP) student registers and exams is maintained by the Safety Division and so the certification status of any personnel entering right-of-way may be verified. Industrial Safety maintains Cal/OSHA training records of all employees.

APPENDIX A: ORGANIZATION CHARTS

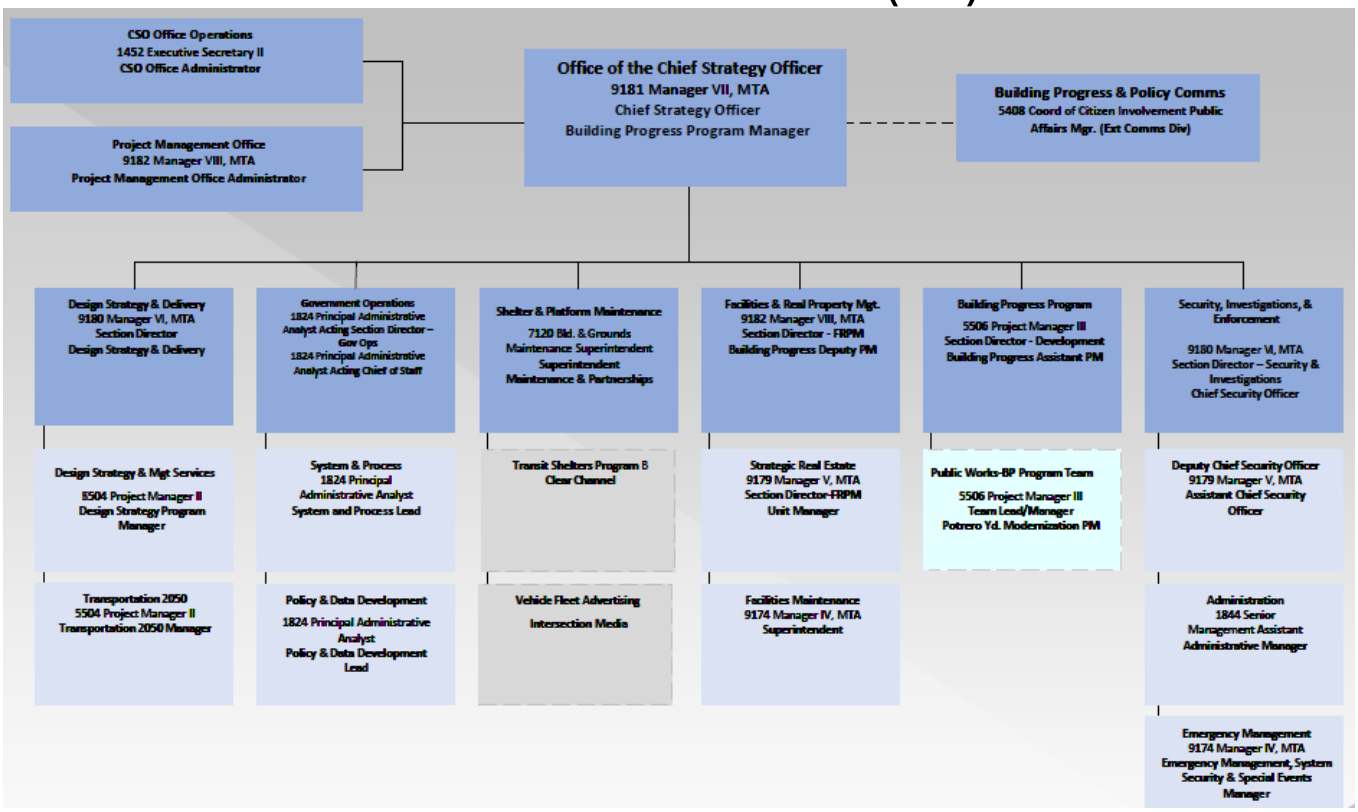
APPENDIX A1: SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY



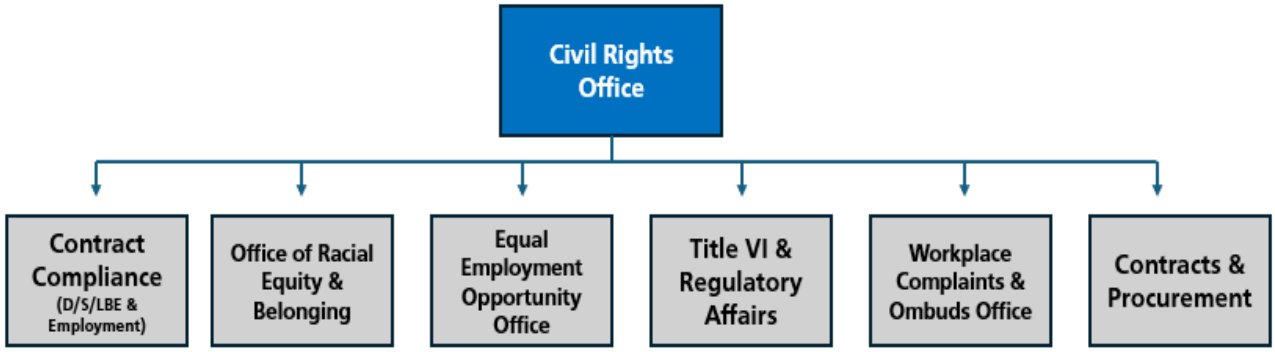
APPENDIX A2: CHIEF OF STAFF OFFICE



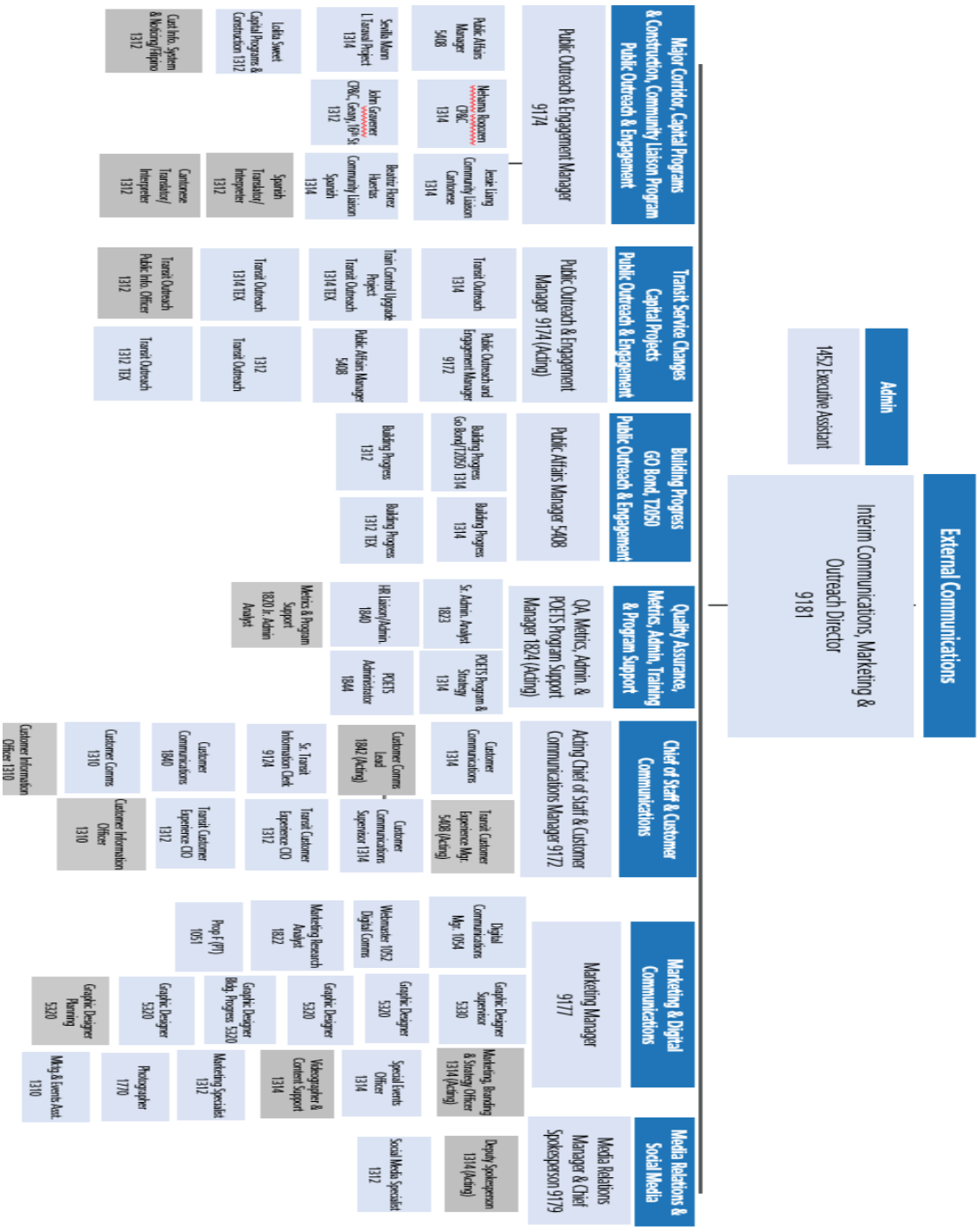
APPENDIX A3: OFFICE OF THE CHIEF STRATEGY OFFICER (CSO)



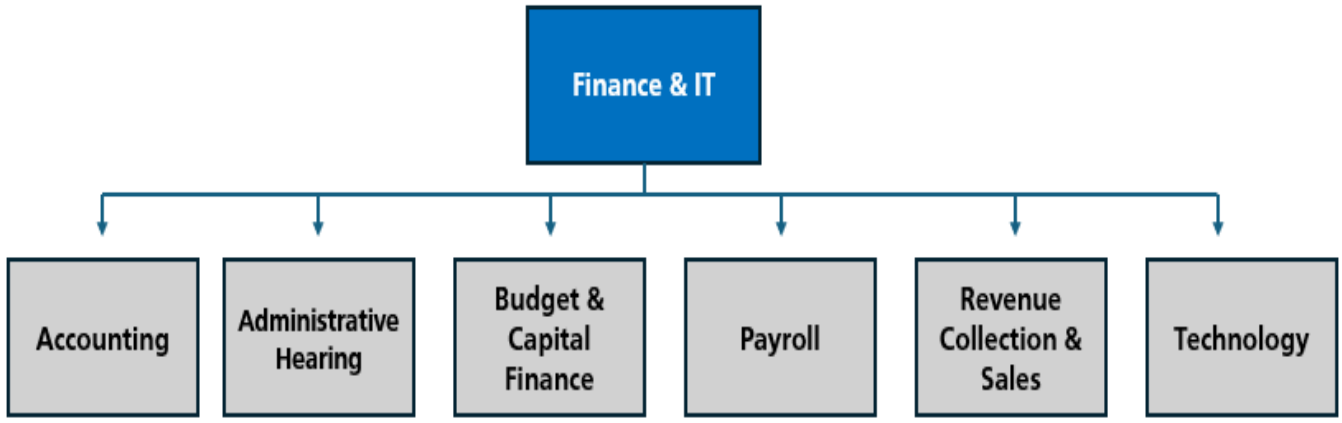
APPENDIX A4: CIVIL RIGHTS OFFICE



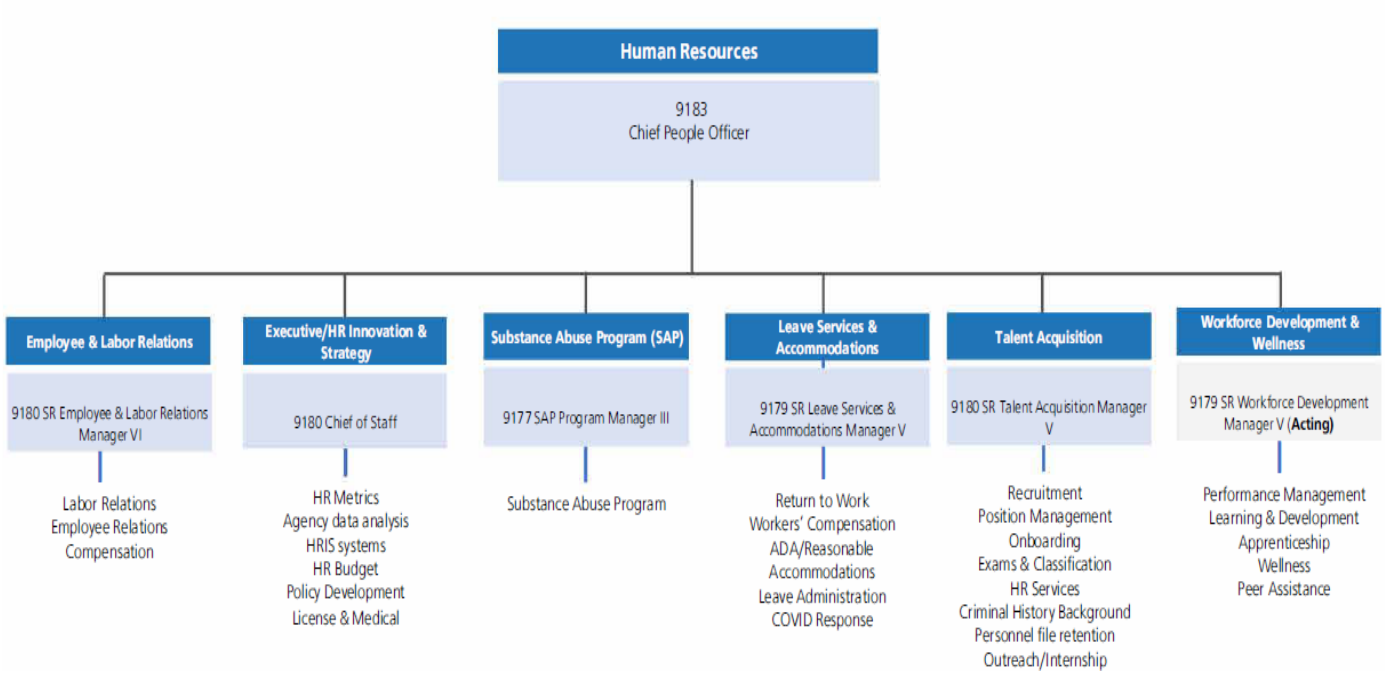
APPENDIX A5: COMMUNICATIONS AND MARKETING DIVISION



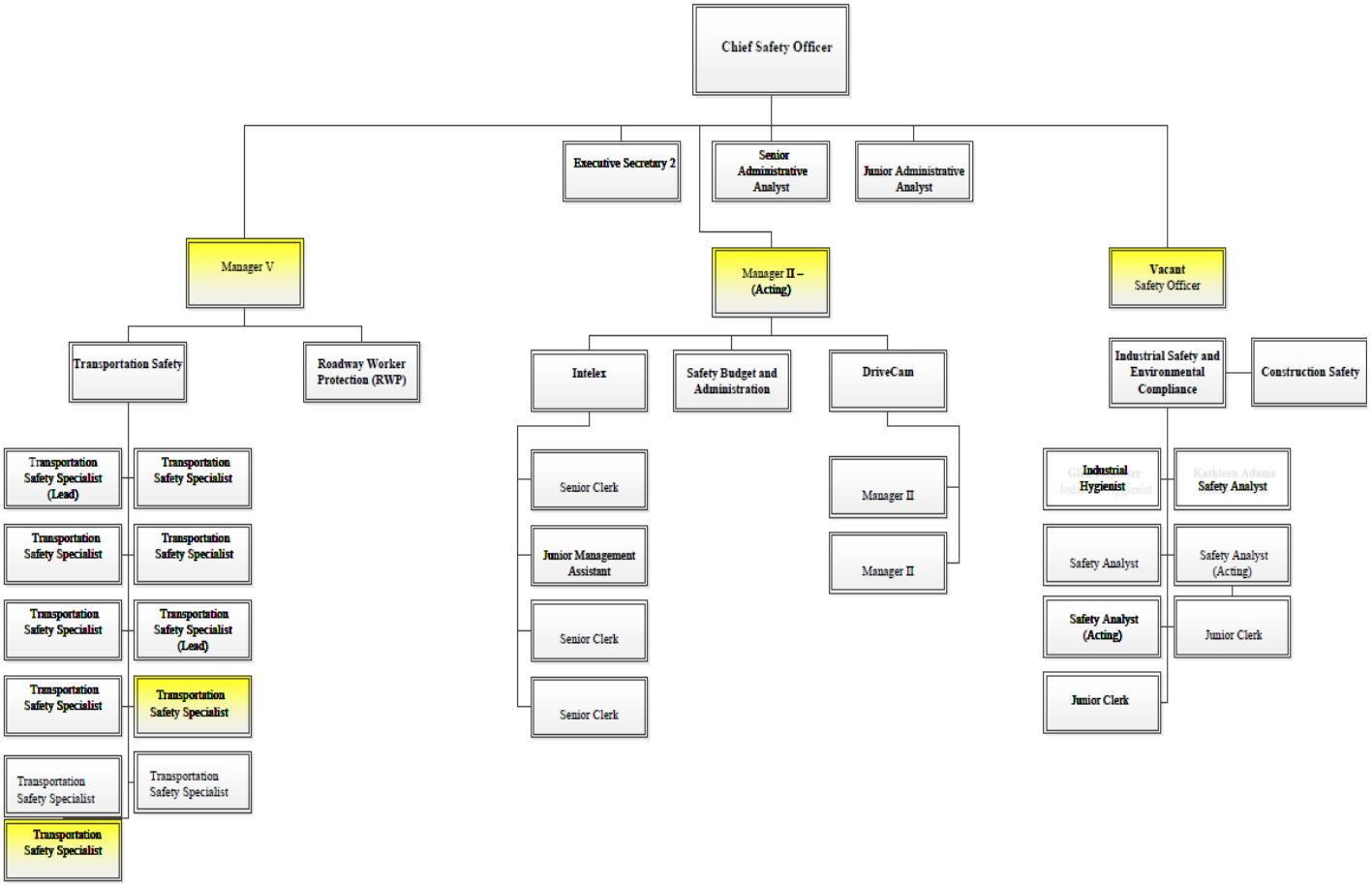
APPENDIX A6: FINANCE & TECHNOLOGY DIVISION



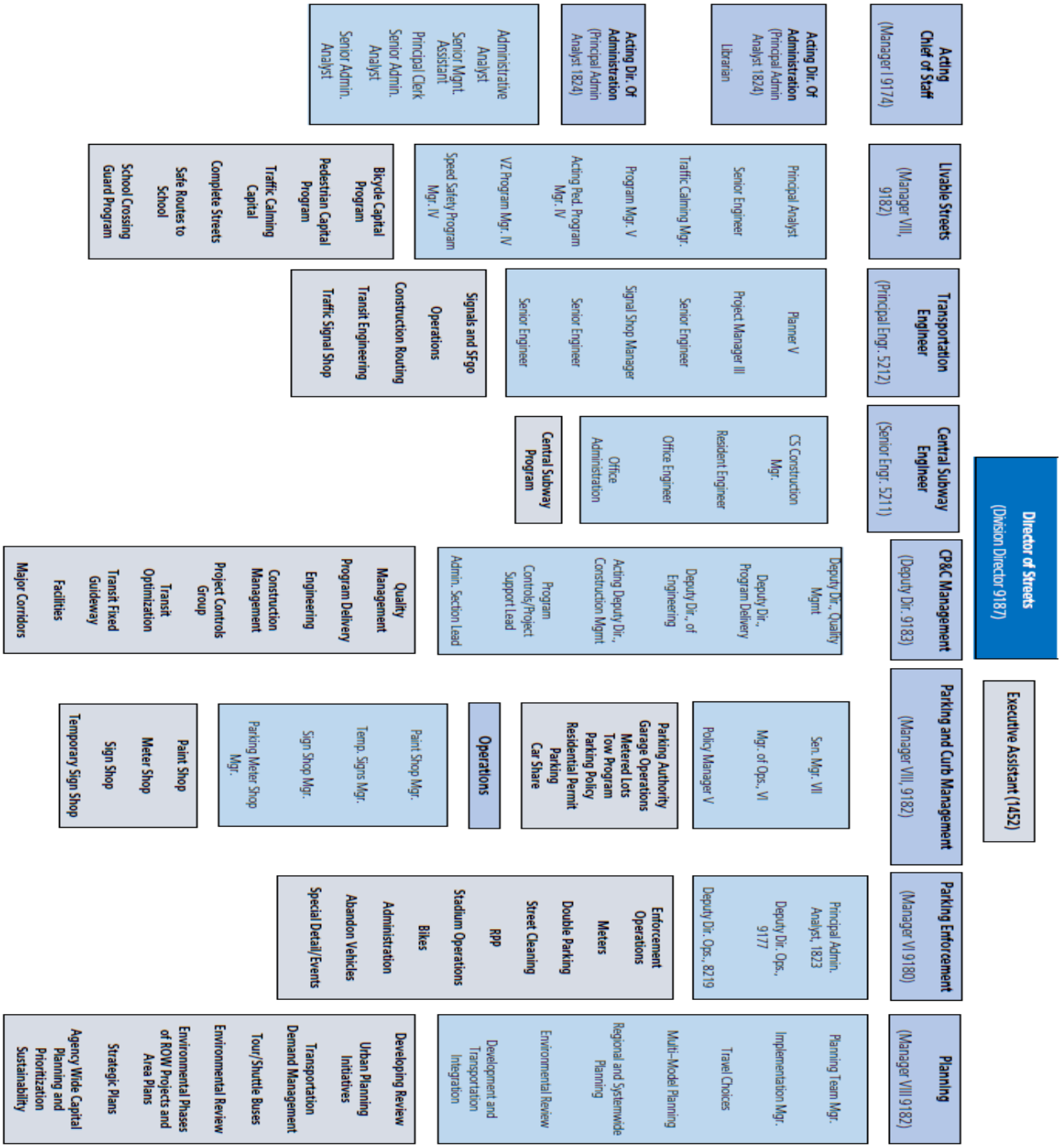
APPENDIX A7: HUMAN RESOURCES DIVISION



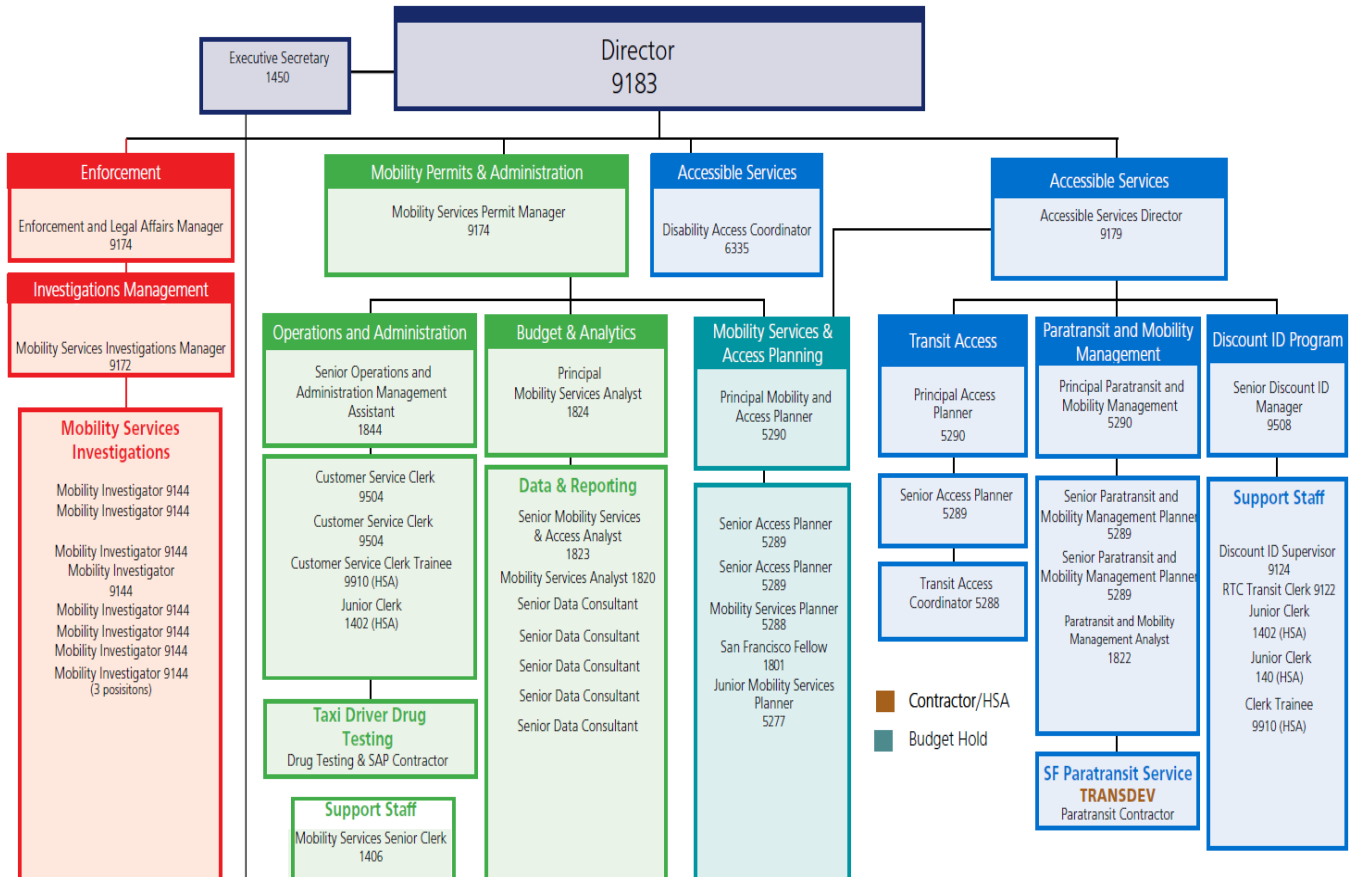
APPENDIX A8: SAFETY DIVISION



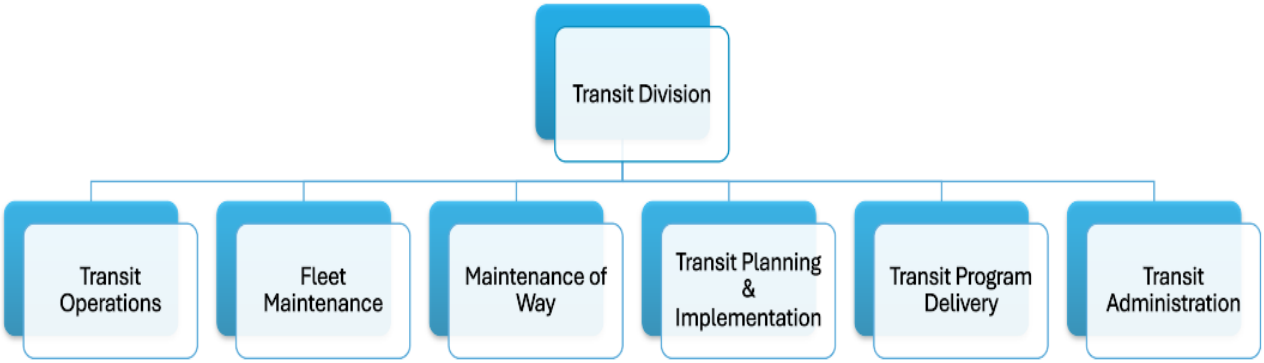
APPENDIX A9: STREETS DIVISION



APPENDIX A10: TAXI ACCESS AND MOBILITY SERVICES (TAMS)



APPENDIX A11: ORGANIZATION CHART – TRANSIT DIVISION



APPENDIX B: SAFETY PERFORMANCE MEASURES AND TARGETS

SFMTA's safety performance measures are based on the measures established under the National Public Transportation Safety Plan. There are 15 total targets defined by the national PTASP, including 8 targets required for the Safety Risk Reduction Program (SRPP). Targets required for the SRPP are bolded and denoted in Column 2. All rates are per 100,000 Vehicle Revenue Miles (VRM).

All measures will be evaluated over a fiscal year period against a 3-year average of data reported to the National Transit Database (NTD). 2025 targets are based on FY 2022-2024 (7/1/2021-6/30/2024). For each measure, the performance target is to maintain or improve upon the 3-year average. For all measures except System Reliability (Measure 5), "improvement" refers to a reduction. For System Reliability (Measure 5), "improvement" refers to an increase.

Sources & Methodology:

Performance targets are calculated based on data pulled from the NTD Open Data portal and contains all Major Safety Events and all Non-Major Safety Events resulting in an injury. Data on vehicle revenue miles (VRM) is produced by the Transit Performance & Analytics team. For each metric listed, the total number of events are summed for the fiscal year. For the metrics that are rates, this total is then multiplied by 100,000, and divided by the total VRM for that fiscal year. Each of these metrics is then averaged over the 3-year period.

System Reliability (MDBF) is calculated by dividing the Vehicle Revenue Miles by total major mechanical failure as reported by SFMTA maintenance units for each fiscal year, and then averaging those numbers over 3 years.

Table B-1: Systemwide Safety Performance Targets

National PTASP Numbering	Safety Risk Reduction Program Numbering	Measure	Systemwide
Measure 1a	**1**	**Major Safety Events**	**≤111.33**
Measure 1b	**2**	**Major Safety Events - Rate per 100,000 Revenue Miles**	**≤0.50**
	3	**Collisions**	**≤59.33**
Measure 1.1	**4**	**Collisions - Rate per 100,000 Revenue Miles**	**≤0.27**
Measure 1.1.1		Pedestrian Collisions - Rate per 100,000 Revenue Miles	≤0.03
Measure 1.1.2		Vehicular Collisions - Rate per 100,000 Revenue Miles	≤0.21
Measure 2a		Fatalities	≤1.33
Measure 2b		Fatalities - Rate per 100,000 Revenue Miles	≤0.006
Measure 2.1		Transit Worker Fatalities - Rate per 100,000 Revenue Miles	≤0
Measure 3a	**5**	**Injuries**	**≤181.33**
Measure 3b	**6**	**Injuries - Rate per 100,000 Revenue Miles**	≤0.80
Measure 3.1		Transit Worker Injuries - Rate per 100,000 Revenue Miles	≤0.13
Measure 4a	**7**	**Assaults on Transit Workers**	*
Measure 4b	**8**	**Assaults on Transit Workers - Rate per 100,000 Revenue Miles**	*
Measure 5		System Reliability (Mean Distance Between Major Mechanical Failures)	≥4,256

Table B-2: Safety Performance Targets by mode

National PTASP Numbering	Safety Risk Reduction Program Numbering	Measure	Cable Car	Light Rail	Motor Coach	Trolley Coach	Historic Streetcar
Measure 1a	**1**	**Major Safety Events**	**≤5.33**	**≤38.00**	**≤46.33**	**≤16.00**	**≤3.67**
Measure 1b	**2**	**Major Safety Events - Rate per 100,000 Revenue Miles**	**≤2.68**	**≤0.83**	**≤0.36**	**≤0.35**	**≤1.59**
	3	**Collisions**	**≤4.00**	**≤31.67**	**≤14.00**	**≤5.33**	**≤2.67**
Measure 1.1	**4**	**Collisions - Rate per 100,000 Revenue Miles**	**≤2.01**	**≤0.69**	**≤0.11**	**≤0.12**	**≤1.17**
Measure 1.1.1		Pedestrian Collisions - Rate per 100,000 Revenue Miles	≤0.17	≤0.07	≤0.02	≤0.03	≤0.00
Measure 1.1.2		Vehicular Collisions - Rate per 100,000 Revenue Miles	≤1.51	≤0.54	≤0.08	≤0.08	≤1.02
Measure 2a		Fatalities	≤0.00	≤0.67	≤0.67	≤0.00	≤0.00
Measure 2b		Fatalities - Rate per 100,000 Revenue Miles	≤0.00	≤0.02	≤0.00	≤0.00	≤0.00
Measure 2.1		Transit Worker Fatalities - Rate per 100,000 Revenue Miles	≤0.00	≤0.00	≤0.00	≤0.00	≤0.00
Measure 3a	**5**	**Injuries**	**≤4.67**	**≤19.00**	**≤103.33**	**≤49.33**	**≤3.00**
Measure 3b	**6**	**Injuries - Rate per 100,000 Revenue Miles**	**≤2.34**	**≤0.40**	**≤0.80**	**≤1.07**	**≤1.27**
Measure 3.1		Transit Worker Injuries - Rate per 100,000 Revenue Miles	≤0.84	≤0.05	≤0.13	≤0.15	≤0.28
Measure 4a	**7**	**Assaults on Transit Workers**	*	*	*	*	*
Measure 4b	**8**	**Assaults on Transit Workers - Rate per 100,000 Revenue Miles**	*	*	*	*	*
Measure 5		System Reliability (Mean Distance Between Major Mechanical Failures)	≥718	≥6,156	≥4,600	≥3,537	≥2,790

*Agencies are not required to set a Performance Target until they have reported 3 fiscal years of data to the NTD; SFMTA has reported one fiscal year, and will begin setting targets in the 2027 PTASP.

APPENDIX C: RESPONSIBILITIES OF TRANSIT OPERATIONS AND MAINTENANCE

Transit Division – Operations & Maintenance

Per the organization chart in **APPENDIX A11: ORGANIZATION CHART – TRANSIT DIVISION**, the Director of Transit is responsible for ensuring the overall safety for the SFMTA Bus and Rail System.

Director of Transit

- Directs the utilization of resources available to work-units in both bus and rail modes
- Provides direction and support to all transit operations and maintenance functions to ensure attainment of SFMTA's objectives within established policies and parameters
- Coordinates activities within transit operations to assure peak performance and productivity,
- Direct transit operational staff to conform with applicable external regulations.
- Develops and implements strategic transportation plans focusing on transportation needs in cooperation and coordination with SFMTA Divisions and work-units.
- Provides counsel to the Director of Transportation concerning SFMTA transit service
- Implements SMS in the Transit Division
- Assists the Director of Transportation in developing improvement plans for the Transit Division
- Formulates policy recommendations regarding SMS for the Board of Directors, the Director of Transportation, and the Chief Safety Officer.

Per the organization chart in APPENDIX A11: ORGANIZATION CHART – TRANSIT DIVISION, Director of Transit is responsible for ensuring the overall safety for all SFMTA Rail operations. The Transit Division's rail units (Transit Operations, Rail Maintenance, Maintenance of Way, Program Delivery & Support, and Cable Car) are responsible for implementing the requirements as outlined in this PTASP including training requirements of all Rail Maintenance Supervisors and other Rail Maintenance employees, Rail MOW employees, Rail Facilities, Rail Transit Supervisors, Transportation Controllers, Train Operators, Contractors, and emergency response personnel as required to ensure compliance with Standard Operating Procedures.

Chief Transportation Officer

The Chief Transportation Officer oversees all the rail transit operations, except Cable Car,

including Transit Services, Transportation Management Center, Rail Operations Training, and is responsible for the following activities:

- Develop operating rules and procedures
- Implement changes in rules and procedures by issuing bulletins and notices to train operators
- Develop and maintain rail system emergency preparedness and response for rail facilities in coordination with the Emergency Preparedness Manager
- Maintain training certification and re-certification requirements
- Comply with SFMTA Change Management Procedures

Rail Operating Divisions

The division managers of each Rail operating division have the following responsibilities:

- Manage day-to-day operations at the Division, monitor train operators' in-service operation; communicate safety messages to train operators; investigate safety concerns and occupational injuries; take corrective actions to prevent or mitigate recurrences including discipline and counseling; inspect facilities; and maintain safety records at the division
- Ensure train operators have the required licenses and up-to-date DMV medical certificates; operators receive training, and re-training
- Take appropriate action(s) to resolve reported or otherwise identified potential hazards and close-call incidents as required under the Hazard Management Program
- Interact with the Rail Training team

Rail Transportation Management Center (TMC)

The Rail TMC monitors and controls SFMTA rail operations for all rail lines. Operations include train control, traction power, fire-life safety systems, communications, issuance of train orders, operating permits and clearances for mainline maintenance work. This facility also has emergency operations functions that include monitoring of warnings and alarms through the Supervisory Control and Data acquisition (SCADA) system, and control ventilation systems that evacuate smoke from tunnels. The TMC is staffed twenty-four hours per day, seven days per week.

TMC Senior Operations Manager

The Senior Operations Manager of the TMC is responsible for overall supervision of the TMC staff, who are responsible for monitoring and authorizing train movement. The senior operations manager of TMC is responsible for the following activities:

- Oversees the activities of transit operations specialists (floor managers) train controllers, train controller instructors and other TMC staff.
- Ensure train controllers have the required training and re-training
- Implements changes in procedures by issuing bulletins and notices to the train

controllers
- Develops and maintains rail system emergency SOPs for the TMC Coordinate development and implementation of the TMC emergency response plan with the Emergency Preparedness Manager

Rail Operator Training

The manager of Rail Operator Training is responsible for all operator training for new operators (to the rail mode), new rail project start-ups, new rail vehicles, and recertification. Duties include:

- Oversees operator certification and re-certification requirements
- Oversees training lesson plan development and implementation
- Takes corrective actions as necessary to prevent or mitigate recurrences of incidents, accident or occupational injuries
- Supports investigations of incidents and accidents as necessary
- Implements training in response to video-investigation findings
- Implements compliance checks

Rail Vehicle Maintenance

The Deputy Director of Rail Maintenance responsibilities include fleet preventive maintenance, heavy duty repair, fleet overhauls, body shop, fleet engineering, fleet electronics, and rescue repair through the Mobile Response Unit. Rail Maintenance is responsible for all aspects of maintenance for:

- Breda LRVs (LRV2/3)
- Siemens LRVs (LRV4)
- Historic Streetcars

Rail Vehicle Maintenance functions include:

- Conduct prescribed inspections of the rail vehicles in the manner specified by the Rail Fleet Services Maintenance Plan
- Conduct non-scheduled maintenance and inspections
- Perform failure analyses, as necessary, to determine the cause(s) of failures and recommend corrective action
- Develop and update maintenance rules and procedures as necessary
- Inspect trains involved in safety events for compliance with all maintenance and operational specifications related to safe operation, e.g., horn functionality, brakes, etc. Place a "hold" on equipment if there is evidence of a system being in a condition outside of its normal and safe-operating capability; ensure Rail Equipment personnel have been trained and have the required licenses and/or certification
- Train personnel in injury and illness prevention, emergency procedures, and safe vehicle operation; communicate safety messages to personnel; investigate occupational injuries; take corrective actions to prevent or mitigate recurrences

including discipline and counseling; investigate reports of unsafe conditions; inspect facilities; and maintain safety records at the facility
- Perform and document random checks of completed maintenance activities at the various mileage intervals

Maintenance of Way

- The Deputy Director of Maintenance of Way oversees the activities of Track Maintenance, Traction Power, Signal Maintenance, and the Digital Shop
- All maintenance is performed in accordance with the Maintenance of Way SOPs. Manufacturers recommendations, FRA Regulations, CPUC General Orders, Industry Standards, and operational experience were used in guidelines in developing the maintenance SOPs.

Track Maintenance

Track Maintenance responsibilities include:

- Maintain the guideway that consists of ballasted track, embedded track, and direct fixation track
- Maintain crossovers, turnouts and track on the mainline and in yard storage areas
- Utilize the Track Maintenance SOP to ensure inspections and maintenance activities are followed and performed timely
- Document and maintain accurate records of inspections, maintenance work, safety event related activities, and emergency responses; make records available to the CPUC, FTA, and Safety Division for review and audit.

Traction Power Maintenance

Traction Power Maintenance responsibilities include:

- Inspect and maintain traction power substations, overhead lines systems, auxiliary power equipment, ventilation system, uninterruptible power supply, and other associated equipment
- Utilize the appropriate SOP to ensure inspections and maintenance activities are followed and performed timely
- Document and maintain accurate records of inspections, maintenance work, accident-related activities, and emergency responses; make records available to the CPUC, FTA, and Safety Division for review and audit.

Signal Maintenance

Cable Car Operations and Maintenance

The Senior Operations Manager of the Cable Car Division is responsible for day-to-day operational and maintenance decisions, including Cable Car transit operations, Cable Car track and machinery maintenance, and Cable Car vehicle maintenance and restoration.

- Cable Car Operations runs the Cable Car fleet on three cable car lines. Operations ensures that each Cable Car in service has both a motorman (also knowns as a grip) and a conductor. The motorman operates the grip mechanism which connects the cable car to the cable, which runs under the street and propels the cable car. The conductor is primarily responsible for collecting fares from the passengers and operating the cable car's rear brake.
- Cable Car Machinery maintains the system of electric motors, which move the under-street cables, and the cables themselves as well as all the related appurtenances in accordance with the Cable Car System Machinery Engineer's Logbook SOP. Other related SOPs, used by Cable Car Machinery in safe maintenance of the system are Cable Car Machinery Lockout/Tagout, Cable Car Systems Splicer's Logbook, and Cable Car Slicing and Maintenance
- Cable Car Track Maintenance maintains the cable car tracks, switches, and crossovers in accordance with Cable Car Roadway Track Inspection and Maintenance SOP. While SFMTA's cable car track is narrow gauge (39 inches), Cable Car Track Maintenance follows the maintenance requirements of CPUC General Order 143 series and of FRA's 49 CFR 213.
- Line supervision is provided by Metro Rail Operations

Program Delivery and Support

The Manager of Program Delivery and Support oversees the following five work units: Transit Capital Planning, Fleet Engineering, and Commissioning, , and Technology Integration. In addition, the Program Delivery and Support manages:

- Individual rail vehicle procurement projects, such as, the Siemens LRV4 Project; Vehicle procurement project staff with responsibility for all aspects of the vehicle procurement, including, design, safety/security certification, user and system-integration testing, and final vehicle commissioning. Compliance with requirements of the FTA procurement and safety/security certification.
- Project documents including Safety/Security Management Plans (SSMP) and Safety/Security Certification Plans.
- Capital Planning assessments of the state of good repair of each rail vehicle fleet, plans for fleet overhauls, vehicle retirements, and vehicle replacement projects.
- Participating in the user acceptance and systems integration testing of both new rail and bus vehicles and verifies that new vehicles have completed commissioning and are ready for revenue service.

Fleet Engineering

Fleet Engineering is responsible for:

- Handling design planning and modification for both rail and bus fleets. Fleet Engineers work on major procurement projects, such as the Siemens LRV4 Project and ensure the new vehicle designs meet SFMTA, CPUC, FTA and industry standard.

- Designing and implementing any post-procurement design.
- Assisting both Rail Vehicle Maintenance and Bus Maintenance with troubleshooting, brake efficiency testing, and design hazard analysis.

Quality Assurance

Quality Assurance duties include:

- Ensuring the quality of maintenance activities through verifying the quality of various preventive maintenance activities.

The Maintenance Training Unit

- Prepares both rail and bus maintenance personnel for their job duties.
- Provides maintenance personnel with necessary training in operating of all SFMTA rail vehicles except Cable Car and preparation for commercial driver's licenses.

APPENDIX D: SAFETY RISK REGISTER

The Safety Risk Register is an information management tool used to document the agency's Safety Risk Management and Safety Assurance activities. Below is an example:

Identification

Hazard	Hazard Type	Identification Date	Identification Source	Analysis Date	Worst Possible, Worst Credible, or Most Common Potential Consequences(s)	Existing Mitigation(s)
Broken Rail	Technical-Maintenance	7/1/19	Inspection Report	7/1/19	Bus derailing resulting in worker or rider fatality	

Initial Safety Risk Rating

Hazard	Severity of Consequences	Likelihood of Consequences	Safety Risk Index	Safety Risk Priority
Broken Rail	1 (Catastrophic)	A (Frequent)	1A (High)	1 – Unacceptable – action required, safety risk must be immediately mitigated or eliminated

Further Mitigation Action

Hazard	Further Mitigation Action
Broken Rail	1. Stop all trains from going over the track; replace broken rail with new rail immediately

Revised Safety Risk Index

Hazard	Revised Safety Risk Index/Priority	Revised Safety Risk Index Date
Broken Rail	3C (Low) – 3 – (Acceptable with review; Safety risk is	7/1/19

	acceptable pending management review)	

Mitigation Owner and Implementation Date			
Hazard	Department Responsible for Mitigation	Estimated Implementation Date	Contact Person
Broken Rail	Track Maintenance	7/1/19	Superintendent Track Maintenance

APPENDIX E: JLMS CHARTER

Joint Labor Management Safety (JLMS) Committee
Committee Charter, Version 2.0
Approved by JLMS Committee on January 29, 2025

1. PURPOSE

This charter outlines the structure, composition, and procedures of SFMTA's Joint Labor Management Safety (JLMS) Committee as required by the Public Transportation Agency Safety Plan (PTASP) regulation (49 CFR Part 673 Subpart C). Under this regulation, transit agencies are required to establish safety committees with equal numbers of frontline transit worker and management representatives to address safety issues.

2. STRUCTURE

a. Membership

SFMTA's JLMS Committee consists of equal number of frontline employee and management representatives. Pursuant to PTASP regulations, frontline staff representatives are selected by Transport Workers Union (TWU) Local 250A, the labor organization that represents the plurality of the frontline workforce at SFMTA. To the extent practicable, the JLMS Committee must include frontline transit worker representatives from major transit service functions, such as operations and maintenance, across the transit system.

SFMTA Management Membership **Management Chair*	**Frontline Transit Worker Membership** **Frontline Chair*
Primary Members: 1. *Melvyn Henry (Safety) 2. Lupita Ibarra (Operations) 3. Sean Kennedy (Planning, Scheduling, Safety) 4. Michael Henry (Maintenance) 5. Tony Henderson (Traffic Engineering) 6. Teresa Scism (Security)	**Primary Members:** 1. *Rafael Cabrera (Operator-250A) 2. David Gunter (Operator-250A) 3. Ronald Mitchell (Operator/JLMB-250A) 4. Herman Morales (Proof of Payment-250A) 5. Terrence Hall (Local 250A Executive Board Member) 6. Alfredo Gonzalez (Automotive Service Worker-250A)
Alternate Members: 1. Ken Anderson (Safety) 2. Lanair Haynes (Operations) 3. Emily Williams (Transit) 4. Emmanuel (Manny) Enriquez (Maintenance) 5. Darcie Alaba (Traffic Engineering) 6. Kim Burrus (Security)	**Alternate Members:** 1. Aleena Galloway (Operator/JLMB-250A) 2. Raymone Garner (Operator-250A) 3. Julio Zamudio (Operator-250A) 4. Walter Cortez (Operator-250A) 5. Giselle Mahan (Operator-250A)

Joint Labor Management Safety (JLMS) Committee
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Approved by JLMS Committee on January 29, 2025

b. Attendance

All primary members are expected to attend the monthly JLMS Committee meetings. If the primary member is not available, then the alternate member is expected to attend in their place. Alternate members shall only attend committee meetings when the primary member is unable to attend.

Four quarterly meetings will be held within a 12-month period, and additional meetings may be scheduled with the committee's approval. Both primary and alternate members are invited to attend the quarterly meetings, however only primary members and alternate members attending as substitutes for primary members are eligible to participate in the voting process.

To ensure continuity of information shared during JLMS Committee meetings, agendas and minutes will be made available to all primary and alternate members. Primary members are expected to brief alternates on committee activities when they are asked to attend the JLMS meeting in their place.

c. Support Staff

Administrative support for the JLMS Committee will be provided by the Transit Safety Implementation Team and the Safety Division. This includes generating and distributing meeting agendas, minutes, and other committee materials, and maintaining records of required committee training.

3. JLMS RESPONSIBILITIES

Pursuant to PTASP regulations, the JLMS committee must conduct the following activities to oversee the transit agencies safety performance:

1. Review and approve SFMTA's Public Transportation Agency Safety Plan (PTASP)
2. Set annual safety performance targets for the safety risk reduction program
3. Support operation of the transit agency's safety management system (SMS) by:
    a. Identifying and recommending safety risk mitigations necessary to reduce the likelihood and severity of potential consequences identified through the transit agency's safety risk assessment, including safety risk mitigations associated with any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program;
    b. Identifying safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended, including safety risk mitigations

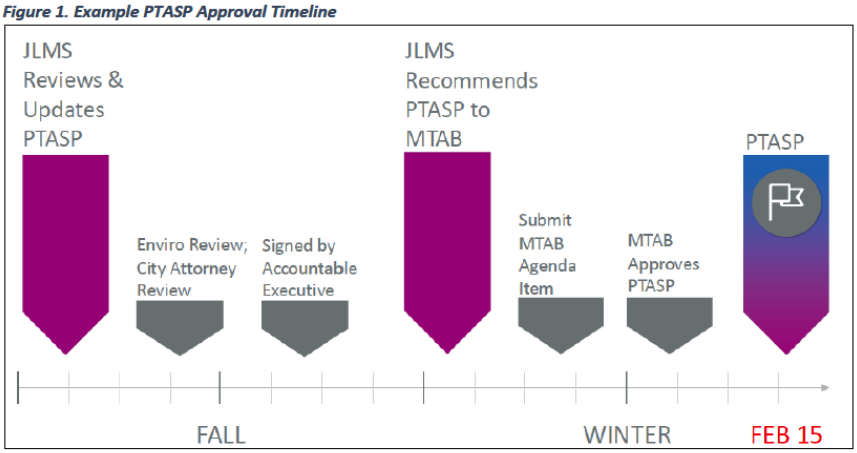
associated with any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program; and

c. Identifying safety deficiencies for purposes of continuous improvement, including any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program.

a. PTASP Review & Approval Process

SFMTA will review its PTASP on an annual basis to determine if updates are required. The JLMS Committee will be an integral part of the required Frontline Staff review and development.

Figure 1. Example PTASP Approval Timeline



b. Setting Annual Performance Targets Process

Annual performance targets will be set based on a three-year rolling average of the data submitted to the National Transit Database (NTD) and approved as part of the annual PTASP update.

c. Support Safety Management System (SMS) Process

As part of the annual PTASP review, Subject Matter Experts (SMEs) will be invited to participate in committee meetings to discuss safety risk mitigations for their respective work units to support the SMS process.

Joint Labor Management Safety (JLMS) Committee
Committee Charter, Version 2.0
Approved by JLMS Committee on January 29, 2025

4. PROCEDURES

a. Meeting Frequency, Agendas, & Minutes

- JLMS Committee meetings will be held at least monthly.
- Support Staff (as described above) is responsible for generating and distributing meeting agendas, minutes, and other committee materials.
    - JLMS Committee chairs can propose agenda items on behalf of their respective group.
- Materials will be disseminated at least one week prior to the scheduled meetings.

b. Training

All JLMS Committee Members (both primary and alternate) will be required to complete the following online training course:

Transportation Safety Institute: SMS Awareness

- *Description:* This 1-hour online course will introduce the participant to Safety Management Systems (SMS), describe the four components of FTA's SMS Framework, and identify the importance of Employee Safety Reporting Systems to the success of SMS.
- *Link:* https://tsi-dot.csod.com/client/tsi-dot/default.aspx
- *Note*: To access the training course linked above, you will need to create a log-in and password then search the course list for "SMS Awareness". Please reach out to support staff if you have trouble accessing this training.

This training must be completed within 60 days of adopting this charter or within 60 days of becoming a JLMS Committee Member, whichever is longer. Upon completion of the required training course, JLMS committee members shall send a copy of the certificate of completion to the committee chair, who will maintain training records.

c. Compensation Policy

All frontline staff of the JLMS Committee are eligible for release time pay to participate in committee meeting and required training. Management will take the necessary measures to ensure that all Frontline Staff Committee Members are available to participate in JLMS meetings upon receiving a written request.

d. Subject Matter Experts (SME)

On an as needed basis, the JLMS Committee will invite subject matter experts (SMEs) to participate in committee meetings. This includes sharing information on agency programs, resources, tools, and data, including submissions to the Employee Safety Reporting Program.

Joint Labor Management Safety (JLMS) Committee
Committee Charter, Version 2.0
Approved by JLMS Committee on January 29, 2025

e. Decision Making

Each primary member of the JLMS Committee (or alternate member, if the primary member is unavailable) will vote on whether to approve the PTASP at the conclusion of the annual review and update. The PTASP will be considered approved if the majority of members vote in support of PTASP approval.

i. Disputes

Should safety committee members reach impasse on an issue within their purview as prescribed by the Federal Transit Administration's Final Rule and Regulations (April 11, 2024) the safety committee will form a smaller working group consisting of the Chief Safety Officer, and one frontline JLMS committee member to attempt to agree on a resolution to recommend to the entire safety committee for adoption.

f. Communication

The committee will periodically update the Accountable Executive and MTA Board on committee activities and will present annual PTASP updates to the SFMTA Board for approval.

JLMS Management members will periodically update the SFMTA Executive Team on JLMS activities. JLMS Frontline members will periodically update all frontline labor unions on JLMS Committee activities.

APPENDIX F: TRANSIT DIVISION TRAINING PROGRAMS

The following Training Program Plans describe training activities, credential requirements, train-the-trainer programs, training schedules, core curriculums and other related training program protocols for the Transit Division:

- Overhead Line Dept. Training Program Plan;
- Motive Power Training Program Plan;
- Maintainer Training Program Plan;
- Cable Car Operator & Trainer Training Program Plan;
- Cable Car Inspector Training Program Plan;
- Track Maintenance Worker Training Program Plan;
- On-Track Equipment Operations Training Program Plan;
- Rail Car Maintenance Worker Train-the-Trainer Training Program Plan;
- Training Program Plan for LRV Operator Training for Maintenance Workers;
- Rail Car Operation Training Program Plan;
- Performance and Incident Response (PIR) Training Program Plan;
- OCC Training Program Plan;
- Signal & Communications Unit Training Program Plan.

APPENDIX G: SAFETY MANAGEMENT POLICY STATEMENT

SFMTA Policy

Safety Management Statement

Safety is foundational to the work of the San Francisco Municipal Transportation Agency (SFMTA) and is the agency's most important priority. There is no greater need than to ensure the safety of the transportation system's customers, employees, vendors and contractors. This means that safety takes precedence in decision making over all other considerations.

The SFMTA must continuously work to create a safer transportation experience. We will do this by continuing to reduce safety events, by addressing vulnerabilities and areas of improvement, implementing safety programs, training employees on how to carry out these programs and collaborating with our partners within the City and County of San Francisco. To achieve these goals, the SFMTA has adopted the Safety Management System.

Under the Safety Management System, all levels of management and all employees are accountable for delivering and sustaining the highest level of safety performance. This starts with the Director of Transportation (DOT), who has ultimate accountability. The Public Transportation Agency Safety Plan (Agency Safety Plan), attached, describes the methods by which we can achieve and sustain an optimal level of safety. It will be the means by which we integrate the Safety Management System into San Francisco's entire transportation system.

The Agency Safety Plan integrates the four components of the Safety Management System (Safety Management Policy, Safety Risk Management, Safety Assurance and Safety Promotion) to lay the foundation of SFMTA's Safety Culture.

A key to the success of the Agency Safety Plan is for employees to be aware that they are accountable for meeting the safety requirements of their positions. Everyone is responsible for safety. Beyond this, its success depends on all employees actively feeling empowered to identify potential safety hazards, taking into consideration safety unto others as to onself.

All employees have an obligation to report potential safety hazards. The Safety Division has established the Employee Safety Reporting System, which employees can use to voice their safety concerns anonymously, if they want to remain anonymous. All employees, including those who work in our facilities and customer-facing employees, will be responsible for using this reporting tool. No action will be taken against any employee who communicates a safety condition or concern through the Employee Safety Reporting System. Exceptions include disclosures of illegal acts, gross misconduct or negligence or a deliberate or willful disregard of SFMTA rules, policies or procedures.

The Safety Division, led by the Chief Safety Officer, is responsible for developing, administering and overseeing a comprehensive Safety Management System as laid out in the Agency Safety Plan. The Agency Safety Plan describes specific objectives, programs and activities to prevent, control and resolve unsafe conditions/hazards that may occur during the operation of the

1

SFMTA Policy
Safety Management Statement

transportation system. The Safety Division will provide feedback on projects from the conceptual stage through the design, procurement, construction and operational stages.

The safety objectives and safety performance targets/measures included in the SFMTA's Agency Safety Plan are consistent with the National Public Transportation Safety Plan and fulfill the requirements of 49 Code of Federal Regulations (CFR) Part 673 and Part 674, which is the authority that establishes this Public Transportation Agency Safety Plan.

Our decisions and actions often affect the safety of our employees, our customers, the public and our contractors. By following the processes described in the Agency Safety Plan, we will be able to continue to improve overall performance and safety. The SFMTA's Board of Directors and Executive Team are committed to fully implementing this Agency Safety Plan through their leadership and by assuring the allocation of necessary resources.

Julie Kirschbaum
Director of Transportation

March 4, 2025
Date

2

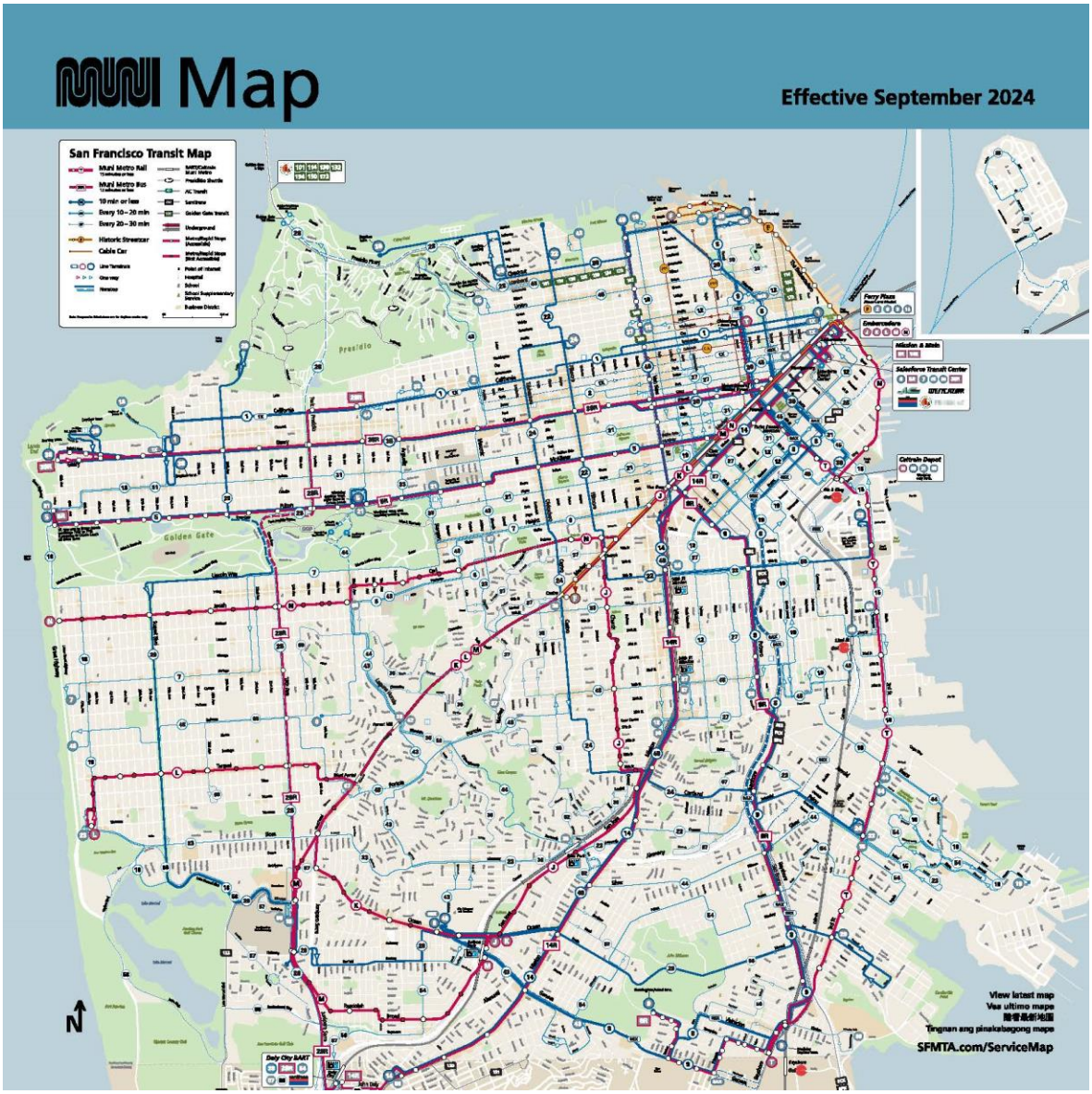
APPENDIX H: STANDARD OPERATING PROCEDURES

SFMTA's Standard Operating Procedures are maintained on an internal database and are available for review upon request.

APPENDIX I: SYSTEM DIAGRAM

Figure I-1. Muni Metro Light Rail System

Figure I-2. Complete Municipal Railway System



APPENDIX J: CERTIFICATION OF COMPLIANCE

APPENDIX J1: ACCOUNTABLE EXECUTIVE APPROVAL

SFMTA

March 20, 2025

Daren Gilbert, Program Manager
Rail Transit Safety Branch
Rail Safety Division
California Public Utilities Commission
300 Capitol Mall, Suite 400
Sacramento, CA 95814

Subject: PTASP – Certificate of Approval: Accountable Executive

Dear Mr. Gilbert,

As the Accountable Executive for SFMTA 's Safety Management System, I have approved this Public Transportation Agency Safety Plan and certify that it complies with 49 CFR 672, 673, 674, CPUC General Order 164 and CPUC Program Standard.

Please contact Chief Safety Officer & SMS Executive Melvyn Henry with any questions or need for additional information.

Sincerely,

Julie Kirschbaum
Director of Transportation

cc: Melvyn Henry, Director of System Safety, Chief Safety Officer
Brent Jones, Acting Director of Transit
Susan Cleveland-Knowles, Deputy City Attorney
Stephanie Stuart, Deputy City Attorney

APPENDIX J2: JOINT LABOR/MANAGEMENT SAFETY COMMITTEE APPROVAL

SFMTA

Date: March 19, 2025

To: Safety Promotion Team
Office of Transit Safety and Oversight
1200 New Jersey Ave, SE
Washington DC 20590

CC: Julie Kirschbaum, SFMTA Director of Transportation
Daren Gilbert, CPUC Rail Transit Safety Branch Manager
Anthony Ballaster, President, TWU Local 250A

From: Joint Labor Management Safety Committee (JLMS)

Subject: 2025 Public Transportation Agency Safety Plan (PTASP)

Per instructions of the Bipartisan Infrastructure Law, the Joint Labor Management Safety Committee (JMLS) revised and updated the agency's PTASP. The committee is composed of 50% of frontline staff from the Transport Workers Union of America (TWU) Local 250A, and 50% of Management Staff from San Francisco Municipal Transportation Agency (SFMTA).

In July 2022, the JMLS was created to begin incorporating applicable PTASP requirements outlined in 49 U.S.C. 5329 (d). The attached PTASP draft has been approved by all the JMLS committee members. The draft will go through the final signature process with the MTA Board of Directors, the SFMTA Director of Transportation and the California Public Utilities Commission (CPUC).

Sincerely,

Melvyn Henry

Melvyn Henry Jr.
Chief Safety Officer
On behalf of JLMS Management Members

Rafael Cabrera
Cable Car Operator
On behalf of JLMS Frontline Members

The committee members listed below are committed to providing an ongoing continuous review of the PTASP, and related policies and procedures.

SFMTA Management Membership **Management Chair*	**Frontline Transit Worker Membership** **Frontline Chair*
Primary Members: 1. *Melvyn Henry (Safety) 2. Lupita Ibarra (Operations) 3. Sean Kennedy (Planning, Scheduling, Safety) 4. Michael Henry (Maintenance) 5. Tony Henderson (Traffic Engineering) 6. Teresa Scism (Security)	**Primary Members:** 1. *Rafael Cabrera (Operator-250A) 2. David Gunter (Operator-250A) 3. Ronald Mitchell (Operator/JLMB-250A) 4. Herman Morales (Proof of Payment-250A) 5. Terrence Hall (Local 250A Executive Board Member) 6. Alfredo Gonzalez (Automotive Service Worker-250A)
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APPENDIX J3: SFMTA BOARD OF DIRECTORS APPROVAL

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
BOARD OF DIRECTORS

RESOLUTION No. 250401-027

WHEREAS, In 2018, the Federal Transit Administration (FTA) published the Public Transportation Agency Safety Plan (PTASP) Rule, requiring each public transportation agency to develop a new safety plan, referred to as the PTASP, and implement a Safety Management System (SMS); and,

WHEREAS, The PTASP Rule is designed to change the safety culture of a transportation agency by making safety everyone's responsibility, empowering employees to play a role in safety and encouraging employees and contractors to report safety concerns to senior management; and,

WHEREAS, The proposed update to the PTASP is required in order to incorporate new requirements imposed by the Bipartisan Infrastructure Law (BIL); and,

WHEREAS, The PTASP must be approved by the San Francisco Municipal Transportation Agency (SFMTA) Joint Labor Management Safety (JLMS) Committee which is comprised of frontline and management staff; and,

WHEREAS, On March 19, 2025 the JLMS approved the SFMTA's 2025 PTASP; and,

WHEREAS, The PTASP must be approved by the SFMTA Board of Directors; and,

WHEREAS, On March 10, 2025, the San Francisco Municipal Transportation Agency, under authority delegated by the Planning Department, determined that the Public Transportation Agency Safety Plan is not defined as a "project" under the California Environmental Quality Act (CEQA) pursuant to Title 14 of the California Code of Regulations Section 15060(c) and 15378(b); and,

WHEREAS, A copy of the CEQA determination is on file with the Secretary to the San Francisco Municipal Transportation Agency Board of Directors and is incorporated herein by reference; now, therefore, be it

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors does hereby approve the SFMTA's 2025 Public Transportation Agency Safety Plan.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of April 1, 2025.

Secretary to the Board of Directors
San Francisco Municipal Transportation Agency