FTA
FEDERAL TRANSIT ADMINISTRATION

PTASP TECHNICAL ASSISTANCE CENTER

Sample
Bus Transit Provider

Agency Safety Plan (ASP)

The Federal Transit Administration (FTA) provides this sample ASP to assist bus transit providers that do not meet the 49 CFR Part 673 definition of "small public transportation provider." This document provides an example of how these bus transit providers, which operate 101 or more vehicles across all fixed route modes and/or 101 or more vehicles in each nonfixed route mode in peak revenue service, or that also provide rail transit service, can address minimum requirements in the Public Transportation Agency Safety Plan (PTASP) regulation, 49 CFR Part 673. **FTA uses the fictitious Straightline Transit (ST) as the model public transportation provider for this sample ASP. ST is not a real transit agency, and any similarities to an actual agency in this sample ASP are merely coincidental**. Illustrative language in this sample ASP addresses all Part 673 elements; however, this language provides only one example of how a bus transit provider, required to draft and certify its own plan, may meet Part 673 requirements.

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. Grantees and subgrantees should refer to FTA's statutes and regulations for applicable requirements.

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This sample Agency Safety Plan was developed using FTA's PTASP Template for Bus Transit, available at https://www.transit.dot.gov/regulations-and-guidance/safety/public-transportation-agency-safety-program/ptasp-template-bus and FTA's PTASP Template for Bus Transit Reference Tool, available at https://www.transit.dot.gov/regulations-and-guidance/safety/public-transportation-agency-safety-program/ptasp-template-bus-0.

1. Transit Agency Information

Transit Agency Name	Straightline Transit (ST)
Transit Agency Address	1234 Straightline Transit Drive, Anytown, AnyState 55555
Name and Title of Accountable Executive	Jessica Rawls, Chief Executive Officer
Name of Chief Safety Officer or Safety Management System Executive	Roger Jones, Chief Safety Officer

Mode(s) of Service Covered by This Plan	Fixed Route Bus; Paratransit	**List All FTA Funding Types (e.g., 5307, 5310, 5311)**	5307

Mode(s) of Service Provided by the Transit Agency (Directly operated or contracted service)	Fixed Route Bus (owner operated); Paratransit (contractor operated, under ST Contract Number ST-TRFR-0021) Note: Contractor maintains a separate Agency Safety Plan (ASP) on file at the contractor's office and overseen by ST's Paratransit Operations Manager and staff through monthly reporting and scheduled and unscheduled audits and reviews.

	Yes	No	**Description of Arrangement(s)**	
Does the agency provide transit services on behalf of another transit agency or entity?		☒		Not applicable

Name and Address of Transit Agency(ies) or Entity(ies) for Which Service Is Provided	Not applicable

2. Plan Development, Approval, and Updates

Name of Person Who Drafted This Plan	Roger Jones, Chief Safety Officer, Straightline Transit	
Signature by the Accountable Executive	**Signature of Accountable Executive**	**Date of Signature**
	Jessica Rawls Chief Executive Officer	7/20/2020
Approval by the Board of Directors or an Equivalent Authority	**Straightline Transit Board of Directors**	**Date of Approval**
	Resolution #A-102	6/30/2020
	Relevant Documentation (title and location)	
	A copy of Resolution #A-102, approving the Agency Safety Plan, is maintained on file by the Chief Safety Officer.	

Version Number and Updates

Record the complete history of successive versions of this plan.

Version Number	Section/Pages Affected	Reason for Change	Date Issued
1		New Document	7/20/2020

Annual Review and Update of the Public Transportation Agency Safety Plan

Describe the process and timeline for conducting an annual review and update of the Public Transportation Agency Safety Plan.

ST's Accountable Executive holds ST's management and committees accountable for compliance with the processes and procedures detailed in the Agency Safety Plan (ASP) to ensure adequate safety performance and fulfill requirements of the Public Transportation Agency Safety Plan (PTASP) regulation (49 CFR Part 673). ST's Chief Safety Officer will coordinate the annual review of the ASP, beginning with a notification to all ST departments by March 1 of each year that they must review ASP

sections applicable to their function to ensure that the ASP aligns with their processes. ST departments must submit comments to the Chief Safety Officer by April 1 of each year. The Chief Safety Officer will incorporate departmental comments in the ASP and then conduct a final review and update with the Director of Operations and Director of Maintenance by June 1 of each year. The Accountable Executive will sign and approve any changes, then forward the ASP to the Board of Directors for approval by July 1 of each year.

March 1

CSO notifies departments that they must review ASP sections applicable to their function

June 1

CSO incorporates departmental comments then conducts a final review and update with the Director of Operations and Director of Maintenance

April 1

Departments submit comments to the CSO

July 1

Accountable Executive signs and approves changes, then forwards the ASP to the Board of Directors for approval

ST may need to modify this ASP outside of this annual review cycle. Within thirty (30) calendar days of a modification request, the Chief Safety Officer, Director of Operations, and Director of Maintenance will present the Accountable Executive with the modified plan for review and signature. The Accountable Executive will then forward the modified plan to the Board of Directors for approval.

3. Safety Performance Targets

Safety Performance Targets[1]

Specify performance targets based on the safety performance measures established under the National Public Transportation Safety Plan.

ST established safety performance targets for the period January 1, 2020, through December 31, 2021, based on our review of the last five (5) years of ST's safety performance data, vehicle revenue miles (VRM), and major mechanical system failures reported to the National Transit Database (NTD).

Mode of Transit Service	Fatalities (total)	Fatalities (per 10 million VRM)	Injuries (total)	Injuries (per 10 million VRM)	Safety Events (total)	Safety Events (per 10 million VRM)	System Reliability (VRM / failures)
Fixed Route Bus	0	0	35	8.75	45	11.25	6,500
Paratransit	0	0	1	10	1	10	55,000

Safety Performance Target Coordination

Describe the coordination with the State and Metropolitan Planning Organization(s) (MPO) in the selection of State and MPO safety performance targets.

ST's Accountable Executive shares our ASP, including safety performance targets, with the MPO in our service area each year after its formal adoption by the ST Board of Directors. ST's Accountable Executive also provides a copy of our formally adopted plan to the AnyState Department of Transportation. In addition, ST coordinates with the State and MPO in the selection of State and MPO safety performance targets as requested and outlined in ST's Metropolitan Planning Agreement.

Targets Transmitted to the State	State Entity Name	Date Targets Transmitted
	AnyState Department of Transportation	7/20/2020
Targets Transmitted to the MPO	**MPO Name**	**Date Targets Transmitted**
	Metropolitan Planning Organization	7/20/2020

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[1] Total numbers and rates per vehicle revenue miles (VRM) are provided for illustrative purposes only.

4. Safety Management Policy

Safety Management Policy Statement

Include the written statement of safety management policy, incorporating safety objectives.

Safety is a core value at ST, embodied in everything we do. As documented in our ASP, we commit to developing, implementing, maintaining, and continuously improving processes to ensure the safety of our system, employees, and the public we serve. We maintain an active Safety Management System (SMS) that encourages the open sharing of information on all safety issues throughout our organization.

Responsibilities and Accountabilities for Safety

To remain consistent with the top-down, organization-wide nature of SMS, our Executives and Board of Directors ensure that organizational resources are allocated to further this commitment and achieve the highest level of transit safety performance. This accountability is supported by all agency employees, who ensure that management has access to the information necessary to strategically deploy resources based on identified safety concerns, establish and support accountability for safety decision-making, and address unacceptable safety risk.

Our overall safety objective is to proactively manage safety hazards and their associated safety risk, with the intent to eliminate unacceptable safety risk in our transit operations. To that end, we will continuously examine our operations for hazards. As required by the Federal Transit Administration, we have set annual safety performance targets to help us measure the safety of our transit service. In addition, to address our overall safety objective, we have established mandatory and voluntary employee safety reporting programs and will conduct reporting workshops with all frontline, supervisory, and management personnel during this calendar year.

Safety Objectives

ST has established a set of safety objectives to help us assess our safety performance and the effectiveness of our SMS. Our objectives include the following:

- Continuously examining our operations for hazards, through active employee reporting and review and analysis of data;
- Clearly explaining for all staff their accountabilities and responsibilities for the development and operation of ST's SMS;
- Ensuring that employees charged with implementing the agency's SMS processes, methods and activities are adequately trained and only assigned tasks commensurate with their skills and experience;
- Providing ST employees and contractors with formal, ongoing SMS communications; and

- Continuously improving ST's safety performance through the management of processes that ensure effective safety risk mitigations are implemented in a timely manner.

Quarterly Progress Report

Each quarter, our Safety Department will report to our entire agency regarding how well we are meeting our safety objectives.

We will review and update these objectives, as needed, each year.

Signatures

As required by 49 CFR Part 673 and Section 2 of this document, ST's ASP, which describes our agency's commitment to continuously monitoring, measuring, and improving safety performance, has been approved by the Board of Directors and endorsed by the Chief Executive Officer.

Jessical Rawls	
Jessica Rawls, Chief Executive Officer and Accountable Executive	June 1, 2020
William Thomas	
Chair, Board of Directors	July 1, 2020

Safety Management Policy Communication

Describe how the safety management policy is communicated throughout the agency's organization. Include dates where applicable.

ST has established organizational accountabilities and responsibilities for its SMS, and our Accountable Executive has issued a written Safety Management Policy (SMP) statement that includes ST's safety objectives.

The Chief Safety Officer, who leads ST's SMS activities, ensures the SMP statement is distributed via electronic and hard copy to all employees and contractors. ST conducts an annual safety stand down meeting to discuss safety issues and considerations. We begin this annual activity by reviewing the SMP statement and management's commitment to the safety of our system.

The Chief Safety Officer also ensures the SMP statement is readily available to all executives, managers, supervisors, administrative and frontline employees, union leadership, and the contractor that provides paratransit services, for additional posting and mailouts. The Chief Safety Officer prepares and disseminates quarterly reports documenting how ST is meeting the safety objectives set forth in the SMP statement. The results of these reports are documented in ST's monthly newsletter.

ST also posts copies of the SMP statement and quarterly reports on bulletin boards at headquarters and in all operations and maintenance break areas at each of the operating divisions. The SMP statement and quarterly reports are also distributed during new hire training and orientation.

Should the SMP statement be updated during the year, the Chief Safety Officer will redistribute it throughout the agency following the same protocols to ensure it is provided to all employees and contractors.

ST also communicates organizational accountabilities and responsibilities, described in the section below, in job position descriptions. The Safety Promotion section of this ASP outlines additional mechanisms and processes available to support the communication of information on ST's SMP statement.

Authorities, Accountabilities, and Responsibilities

Describe the authorities, accountabilities, and responsibilities of the following individuals for the development and management of the transit agency's Safety Management System.

Accountable Executive	The Chief Executive Officer (CEO), who is the Accountable Executive, has the following authorities, accountabilities, and responsibilities under this plan: • Controls and directs human and capital resources needed to develop and maintain the ASP, SMS, and Transit Asset Management Plan; • Designates a Chief Safety Officer with a direct line of reporting to the Accountable Executive; • Issues annual SMP statement and safety objectives;

	• Ensures that ST's SMS is effectively implemented throughout the system; • Ensures action is taken to address substandard performance in ST's SMS; • Monitors ST's safety performance; • Accepts safety risk associated with hazards or mitigates unacceptable safety risk; and • Assumes ultimate responsibility for carrying out ST's ASP and SMS.

Chief Safety Officer or SMS Executive	The Accountable Executive designates the Chief Safety Officer as the position with the authority and responsibility for day-to-day implementation and operation of ST's SMS. The Chief Safety Officer holds a direct line of reporting to the Accountable Executive.
	
	The Chief Safety Officer has the following authorities, accountabilities, and responsibilities under this plan:
	
	• Leads the development and update of ST's ASP;
	
	• Develops ST's SMS policies and procedures;
	
	• Monitors day-to-day implementation and operation of ST's SMS;
	
	• Establishes and maintains ST's safety data information management and reporting systems;
	
	• Chairs the SMS Committee, Management of Change Committee, and Accident and Incident Review Board:
	
	    o Coordinates the activities of the committees with other members;
	
	    o Develops agendas and sets topics for discussion;
	
	    o Keeps and distributes minutes of committee meetings;
	
	    o Maintains documentation and decisions made by committees.
	
	• Develops and distributes quarterly report on ST's progress in meeting the safety objectives specified in the SMP statement;
	
	• Develops and distributes reports that monitor and analyze trends in hazards and safety events;
	
	• Develops and issues Safety Reporting Bulletins and manages ST's mandatory and voluntary safety reporting programs;
	
	• Provides information and analysis on reports made through the mandatory reporting program and voluntary employee safety reporting program (ESRP);

	• Ensures personnel who have submitted voluntary reports are notified of the receipt of the report and are informed about the disposition of the report;
	• Develops and issues ST's annual safety performance targets (in coordination with the Accountable Executive);
	• Identifies deficiencies and substandard performance in ST's SMS, notifies the Accountable Executive, and works with the Accountable Executive to develop action plans to address the identified deficiencies;
	• Advises the Accountable Executive on SMS progress and status; and
	• Supports ST departments in managing safety risk by providing Safety Risk Management (SRM) expertise and conducting and overseeing Safety Assurance activities.
Agency Leadership and Executive Management	ST Agency Leadership and Executive Management include staff who report directly to the Accountable Executive:
	• Chief Operating Officer,
	• Deputy Chief Operating Officer,
	• Chief Mechanical Officer,
	• Chief Operations Planning,
	• Chief Counsel,
	• Chief Civil Rights and Equal Employment Opportunity Officer,
	• Chief Innovation Officer, and
	• Chief Policy Officer.
	ST Agency Leadership and Executive Management have authorities and responsibilities for day-to-day implementation and operation of ST's SMS as it applies to their respective business units. In addition, they support systemwide SMS implementation as requested by the Chief Safety Officer and SMS Committee.
	Specific authorities, responsibilities and accountabilities for Agency Leadership and Executive Management under this plan include, but are not limited to, the following:
	• Allocating resources within respective business units to accomplish safety objectives identified in the SMP statement and to address substandard performance in the SMS;

	• Overseeing the safety of day-to-day operations and SMS implementation in their respective business units; • Coordinating with the Safety Department on the implementation of SMS in their respective business unit and providing subject matter expertise as requested; and • Modifying policies consistent with implementation of the SMS and other safety regulations.
Key Staff	Agency Leadership designate Key Staff to support the Accountable Executive and Chief Safety Officer in developing, implementing, and operating the agency's SMS, including specific staff positions and committees. **Key Staff Positions** ST's Key Staff includes those positions that directly oversee ST's Operating Divisions, Control Center and Maintenance Facilities, as well as ST's Human Resources, Technical Training and Procurement Departments. Specific authorities, responsibilities and accountabilities for Key Staff under this plan include, but are not limited to, the following: • Complying with SMS programs and processes; • Supporting development, implementation, and operation of ST's SMS; • Maintaining documents that support SMS implementation; • Reviewing and investigating employee reports, in coordination with the Chief Safety Officer and/or SMS Committee, and documenting results in ST's reporting system; • Providing subject matter expertise to support implementation of ST's SMS; and • Verifying compliance with safety requirements and reporting deviations to the Safety Department. **Key Staff Committees** ST uses five committees to support SMS implementation: • SMS Committee; • Joint Labor Management Safety Committee; • Management of Change Committee; • Accident and Incident Review Board; and • Bus Rules and Procedure Development Committee. Each of these committees is briefly described below.

SMS Committee

ST has established an SMS Committee to support and oversee implementation of our SMS and to promote interagency coordination and action. Members of this committee are appointed by the Accountable Executive and include the following:

- Chairman – Chief Safety Officer,
- Member – Deputy Chief Operating Officer,
- Member – Director of Bus Transportation,
- Member – Senior Dispatcher,
- Member – Senior Bus Operations Instructor,
- Member – Director of Bus Maintenance,
- Member – Senior Vehicle Mechanic,
- Member – Senior Bus Maintenance Instructor,
- Member – Director of Quality,
- Member – Designated Labor Representative,
- Member – Director of Human Resources, and
- Member – Director of Procurement.

The SMS Committee meets monthly and has the following responsibilities:

- Reviews the timely collection of information related to hazards, potential consequences, and safety events;
- Reviews reported hazards and supports the analysis of hazards;
- Investigates, analyzes, and identifies causal factors for safety events;
- Monitors and analyzes trends in hazards and safety events;
- Monitors and evaluates the effectiveness of mitigations implemented to address assessed safety risk and reports findings to the Accountable Executive;
- Monitors and evaluates the effectiveness of corrective actions implemented to address non-conformances and to prevent the recurrence of safety events, and reports findings to the Accountable Executive;
- Monitors industry data and reports from FTA and oversight authorities, industry associations, and manufacturers and other vendors;

- Determines the adequacy of the training provided to the individuals responsible for maintenance, operations, and other personnel who are assigned duties related to the SMS; and

- Supports day-to-day implementation and operation of ST's SMS.

Joint Labor Management Safety Committee

Labor agreements with ST's local union set forth specific provisions for a Joint Safety Committee. This committee is directed to act in an advisory capacity to management. The Joint Safety Committee discusses safety concerns and makes recommendations to the appropriate departments for additional actions, including enhanced compliance activities, safety risk management, tracking and monitoring, training, and communication.

The committee may conduct periodic inspections of worksites, review and analyze reports of industrial illness or injury, and review training reports and safety procedures in order to complete a safety review. Results from these reviews may support safety risk management activities, including the identification of hazards and the mitigation of safety risk.

Such reviews and worksite inspections are performed during normal business hours and are scheduled in advance with appropriate ST staff. The results of the reviews and inspections are not used for disciplinary purpose but serve to support implementation and oversight of ST's SMS.

The Chief Safety Officer co-chairs this committee, which meets monthly.

Management of Change Committee (MoCC)

In compliance with ST's *Policy Instruction SAF-MOCC-002, Management of Change*, ST established its MoCC to support the identification and assessment of changes that may introduce new hazards or impact the transit agency's safety performance.

The Accountable Executive appoints ten (10) members to the MoCC, including representatives from Operations, Maintenance, Engineering, Procurement, Safety, and Human Resources Departments. Members serve for a two-year term that begins January 1 of each even-numbered year.

The MoCC is chaired by the Chief Safety Officer and meets quarterly.

Accident and Incident Review Board

In compliance with ST's *Policy Instruction SAF-INV-004, Safety Event Investigation*, ST's Accident and Incident Review Board reviews the results of ST accident and incident investigations and makes final determinations regarding preventability, causal factors and discipline. ST's Accident and Incident Review

Board consists of seven members that represent Management, the Union, Operations and Maintenance.

The Chief Safety Officer chairs the board.

Bus Rules and Procedure Development Committee

In compliance with ST's *Policy Instruction BUS-PR-32-A, Bus Rules and Procedures Development and Update,* the Bus Rules and Procedures Development Committee is responsible for developing procedures and rules for work processes relating to operating bus transit service, including Bus Operations, Bus Technical Training, and Bus Dispatching. Committee membership includes representatives from Bus Operations, Bus Maintenance, Bus Technical Training, Operations Control Center, Field Operations, Operations Engineering, Safety Department, and members of the local union. Meetings are held on an as-needed basis.
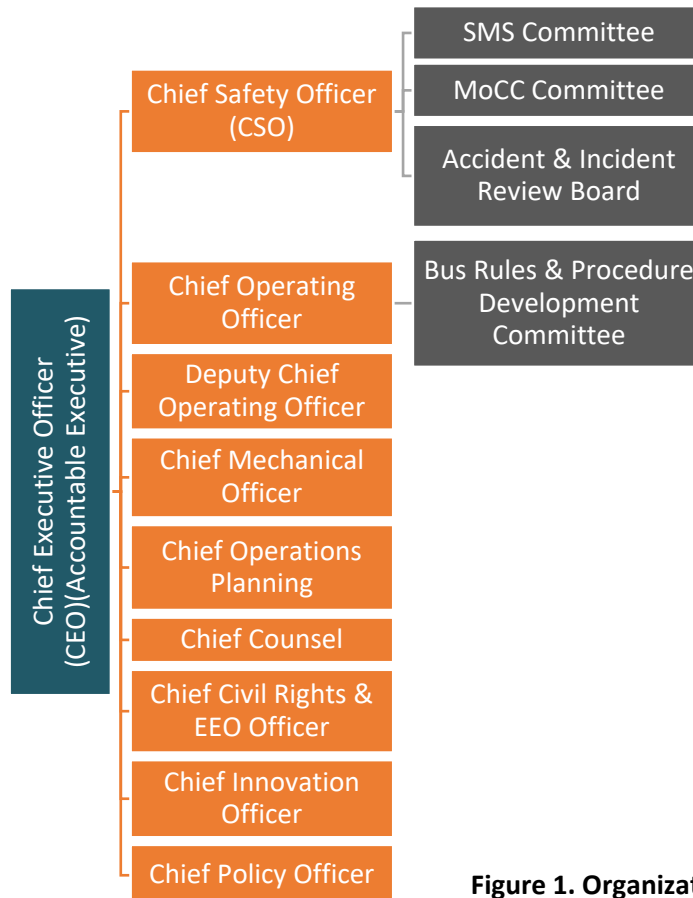
The Chief Operating Officer chairs the committee.

Figure 1. Organizational Chart

Employee Safety Reporting Program

Describe the process and protections for employees to report safety conditions to senior management. Describe employee behaviors that may result in disciplinary action (and, therefore, are excluded from protection).

ST's frontline personnel are our best source of information on safety conditions throughout our system. Nobody knows more about the actual safety performance of the transit system than the employees who deliver the service.

To collect information critical to the safety of our operations, ST uses two types of employee reporting:

- **Mandatory**: As specified in ST's Operations Rulebook and ST's *Policy Instruction SAF-REP-54-S, Safety Reporting*, employees must report certain information related to the occurrence of safety events, non-compliance with safety rules, and as directed in ST Safety Reporting Bulletins.

- **Voluntary**: For all other situations, ST encourages its employees to report any safety condition, safety concern, or safety issue in good faith to their supervisor or senior management without fear of discipline, reprisal or penalty. ST offers employees several different methods for reporting, and reports can be made anonymously.

Mandatory Safety Reporting

ST requires its employees to report the occurrence of safety events meeting the thresholds specified in section 6.2 of ST's Operations Rulebook. This includes safety events as defined in section 6.2 and FTA's PTASP regulation, §673.5.

ST requires employees to immediately report these events via radio, when possible, to the Control Center, or to the first available supervisor if radio contact is not an option. All employees must fill out ST's Safety Event Report Form as soon as possible and provide information to support ST's event investigation process, as necessary.

ST employees also must report non-compliance with safety rules identified in section 6.7 of ST's Operations Rulebook. If an employee fails to report or reports false information regarding non-compliance with these safety rules, ST may take disciplinary action. Reports must be made to the employee's supervisor by no later than the end of shift.

In cases of an employee self-reporting non-compliance with safety rules identified in section 6.7 of ST's Operations Rulebook, ST may consider a non-punitive response. Any discipline will be determined on a case-by-case basis by the Operations Superintendent with the assistance of the Technical Training Department, in coordination with the Accident and Incident Review Board.

As specified in ST's *Policy Instruction SAF-REP-54-S, Safety Reporting*, ST requires employees to report information in response to ST Safety Reporting Bulletins. The Accountable Executive, Chief Safety Officer, or SMS Committee issue these bulletins to collect information on potentially high-risk hazards and safety

concerns. Reporting may occur through radio, email, or the use of forms. Time frames and reporting protocols will be specified in each Safety Reporting Bulletin.

Voluntary Employee Safety Reporting Program

In an effort to maximize available safety information and to ensure that safety concerns are reported freely and without prejudice, ST has established a process through which employees and contractors can report safety conditions, unsafe acts/practices, and/or close-call incidents without fear of discipline, reprisal or penalty. Examples of the types of information reported include:

- Safety hazards in the operating environment (for example, county or city road conditions),
- Policies and procedures that are not working as intended (for example, insufficient time to complete pre-trip inspection),
- Events that senior managers might not otherwise know about (for example, near misses in a bus garage), and
- Information about why a safety event occurred (for example, radio communication challenges).

Acceptable means of reporting safety conditions include:

- Calling ST's safety hotline at 555-SAFE (555-7233),
- Emailing a report to ST's Safety Department at safetyreporting@ST.com,
- Completing the Safety Condition Report Form (*SAF-RPT-FR-304C*) and placing it in the collection box at the employee's main facility or emailing it to ST's Safety Department at safetyreporting@ST.com,
- Submitting Operator Comment Cards or Inspection/Defect Report Forms,
- Notifying Operations Control Center Bus Dispatch, and
- Providing verbal or email notification to a supervisor or union steward.

ST's Accountable Executive is responsible for ensuring protections for employees who report safety conditions to senior management. ST provides employees who voluntarily report safety conditions in good faith with protections from any form of discipline, retribution or penalty, consistent with State and Federal guidelines and regulations, collective bargaining agreements, and Section 5 of ST's Employee Handbook.

When requested, employees providing information related to safety conditions will be kept anonymous and protected from discipline, retribution or penalty to the extent permissible by law. For a complete description of protections provided to employees, see ST's *Voluntary Employee Safety Reporting Procedure (SAF-RPT-001A)*.

While ST places a very high value on employees reporting important safety information, in cases where the reporting employee engaged in an illegal act, committed gross negligence, or deliberately or willfully disregarded regulations or procedures, ST reserves the right to pursue disciplinary action in accordance with current ST policy and applicable collective bargaining agreements.

Under the direction of the Chief Safety Officer, the Safety Department leads the collection, analysis, resolution, and monitoring of safety conditions and feedback through the voluntary ESRP. The Safety

Department ensures employee reports are entered into the safety information system and reviews these reports with the SMS Committee during monthly meetings. The Safety Department also maintains documentation of the policies and specific protocols related to the ESRP. Safety reports are stored electronically, for a minimum of three years, and in hard copy format for future review, trending, and analysis.

Voluntary ESRP Process

The following steps outline ST's voluntary ESRP process. More information is available in ST's *Voluntary Employee Safety Reporting Procedure (SAF-RPT-001A)*:

- Employee or contractor submits a safety report.

- The Safety Department formally records the report in the safety information system as soon as possible and acknowledges its receipt to the reporter, if possible (i.e., reporter is not anonymous).

- The Safety Department initially reviews the report to determine if:

    o Further immediate action must be taken to prevent harm;

    o The report is complete or further information is needed; or

    o The safety concern or issue requires further investigation.

- When additional information is needed and the report is not anonymous, the Safety Department follows up with the reporter. For anonymous reports, the Safety Department may follow up with supervisors or ST's subject matter experts.

    o Further investigation may lead to the identification of hazards and potential consequences, and the determination that the reported safety condition must go through ST's SRM process.

    o Employee reports focused on reported deficiencies and non-compliance with rules or procedures will be forwarded to appropriate management personnel for resolution through the Safety Assurance process, and tracking through the safety information system.

- For employees providing their contact information:

    o Safety Department staff will provide specific verbal or written feedback on employee reports that go through ST's SRM process and employee reports where monitoring was implemented or no further action was taken.

    o Management personnel will report back to employees regarding actions taken through the Safety Assurance process to address reported deficiencies and non-compliance with rules or procedures.

    o Records of communication with reporting employees will be documented in ST's safety information system.

- The Safety Department prepares a monthly report for the SMS Committee to review the voluntary ESRP reports and actions taken to address them. The SMS Committee also supports investigation and resolution of reports.

- The SMS Committee prepares and delivers a quarterly report for the Accountable Executive summarizing the results of the voluntary ESRP (including resolutions and the status of reports) and offering recommendations, as appropriate.

ST's paratransit contractor is contractually obligated to have a formal ESRP. ST's Paratransit Operations Manager, in coordination with ST's Chief Safety Officer, performs on-site monitoring of the contractor's ESRP to ensure that it meets program requirements established by ST.

5. Safety Risk Management

Safety Risk Management Process

Describe the Safety Risk Management process, including:

- Safety Hazard Identification: The methods or processes to identify hazards and consequences of the hazards.

- Safety Risk Assessment: The methods or processes to assess the safety risk associated with identified safety hazards.

- Safety Risk Mitigation: The methods or processes to identify mitigations or strategies necessary as a result of safety risk assessment.

Safety Risk Management Process

ST's Safety Risk Management (SRM) process includes the activities and tools needed to identify and analyze hazards and assess safety risk. ST uses its SRM process to proactively manage safety hazards and their associated safety risk, with the intent to mitigate the safety risk in our transit system to a point that is as low as reasonably practicable. The results of ST's SRM process are documented in the Safety Risk Register module of ST's safety information system and are maintained for a minimum of three (3) years.

ST's Chief Safety Officer leads ST's SRM process, with support from ST's Safety Department and ensures that trained safety personnel work with ST's subject matter experts to identify hazards and consequences, assess the safety risk of the consequences of hazards, and mitigate safety risk, as necessary. In carrying out its SRM process, ST uses Department of Defense, Standard Practice, System Safety MIL-STD-882E as a reference (see Appendix A).

ST's SRM process applies to:

- Existing ST operations and maintenance procedures;

- Changes to ST's public transportation system; and

- Design of new ST public transportation service, vehicles, equipment, and capital projects.

Key terms used in our SRM process include:

- **Event**: Any accident, incident, or occurrence.

- **Hazard**: Any real or potential condition that can cause injury, illness, or death; damage to or loss of facilities, equipment, rolling stock, or infrastructure belonging to ST; or damage to the environment.

- **Risk**: Composite of predicted severity and likelihood of the potential effect of a hazard.

- **Risk mitigation:** Method(s) to eliminate or reduce the effects of hazards.

- **Consequence:** An effect of a hazard involving injury, illness, death, or damage to ST's property or the environment.

Safety Hazard and Consequence Identification

ST identifies hazards and potential consequences from a variety of sources, including the following:

- Voluntary ESRP and mandatory safety reporting program;
- Results from the review of smart camera technology video from our vehicles, including scored or coachable events (driver-specific or aggregated trends of at-risk behaviors);
- Meetings and workshops with employees to discuss safety concerns;
- Results of employee surveys and outreach;
- Results of activities completed by the MoCC to identify changes that may introduce new hazards or impact the ST's safety performance;
- Monthly safety committee meetings with bus operators in each depot;
- Monthly fleet maintenance meetings;
- Results of reports documenting ST's Safety Assurance activities, highlighting safety concerns and changes, including the following:
  - Pre-trip and post-trip vehicle condition reports that identify bus safety concerns to the fleet manager and depot leadership;
  - Results of routine observations of the workplace by management personnel;
  - Results of regular ride checks, mystery rider program, and rule compliance assessments;
  - Information collected from reports and investigations of safety events; and
  - Information collected from other Safety Assurance activities, including maintenance reports, vehicle inspection reports, system inspection reports, quality inspections and reports, and special studies or reviews.
- Results of condition assessments undertaken for the Transit Asset Management plan;
- Results of inspections, audits, and observations performed by Safety Department personnel;
- Review of the drawings and specifications for new or modified equipment or facilities;
- Findings or recommendations made as a result of audits, reviews, studies, or assessments from internal or external departments or agencies;
- After Action Review reports following an emergency event or exercise;
- Information from customer reports and reports of unsafe behavior from the public and law enforcement;
- Information from industry associations, manufacturers and other vendors, and oversight authorities, such as the National Transportation Safety Board and the Federal Motor Carrier Safety Administration, as well as state and local transportation agencies; and

- Information from FTA, including safety directives, bulletins, alerts, and technical assistance, as well as regulations and recommended practices.

ST's Safety Department, SMS Committee, and subject matter experts identify hazards and consequences from these sources. For sources not managed by the Safety Department, ST departments provide reports and hazard information to the Safety Department using forms and notification protocols established by the SMS Committee. ST departments also provide subject matter experts to support identification of hazards and consequences from available reports and information sources.

For all sources, the Safety Department's SRM Lead reviews information collected to identify specific hazards and consequences and determine the potential impact on transit operations and the health and safety of employees. The SRM Lead, working with ST departments, ensures that all hazards reported to, or identified by, the Safety Department are documented in the safety information system.

ST's paratransit contractor is contractually obligated to have a formal SRM process and to identify hazards and consequences. ST requires monthly summary reports regarding hazards and consequences identified by the contractor and their sources. ST's Paratransit Operations Manager, in coordination with ST's Chief Safety Officer, also performs on-site monitoring of the contractor's SRM process to ensure that it meets program requirements established by ST.

Safety Risk Assessment

ST assesses safety risk associated with identified safety hazards and their consequences using its safety risk assessment process, specified in *ST Policy Instruction SAF-SRA-004-A, Safety Risk Assessment*. This process includes an assessment of the likelihood and severity of the consequences of hazards, including existing mitigations, and prioritizing hazards based on safety risk.

As described in *SAF-SRA-004-A*, the SRM Lead, with support from Safety Department staff, manages ST's safety risk assessment activities. In some instances, safety risk assessment may be performed by other ST departments or contractors, with the results reported to the ST Safety Department or SRM Lead for incorporation into the Safety Risk Register module of ST's safety information system.

To conduct the assessment, the SRM Lead may assemble a small team of subject matter experts based on their knowledge of the factors and potential consequences of a hazard and its potential consequence(s) under assessment. Additionally, ST may use outside resources with specialized expertise in the safety risk assessment process or a transit technical discipline.

As specified in *SAF-SRA-004-A*, ST's safety risk assessment process has five steps:

- Step 1: Collecting Information;
- Step 2: Assessing Severity;
- Step 3: Assessing Likelihood;

- Step 4: Determining the Safety Risk Index; and
- Step 5: Documenting Results.

Each step is summarized below.

Step 1: Collecting Information

ST's SRM Lead collects information on identified hazards and its potential consequence(s). For each identified hazard, the SRM Lead opens a file in the Safety Risk Register module of ST's safety information system to provide background and support assessment. Typical information collection activities include:

- Reviewing ST's safety information system and records to identify information relevant to the hazard and its potential consequence(s);
- Interviewing employees and contractors that work in the area or discipline where the hazard and potential consequence(s) have been identified;
- Conducting a walkthrough of the affected area or system, generating visual documentation (photographs and/or video), and taking any measurements deemed necessary;
- Conducting interviews with subject matter experts to gather potentially relevant information on the hazard and potential consequence(s);
- Reviewing any documentation associated with the hazard (records, reports, procedures, inspections, technical documents, etc.);
- Contacting other departments or agencies that may have association with or technical knowledge relevant to the hazard or its potential consequence(s);
- Reviewing any past reported hazards of a similar nature;
- Reviewing information provided by FTA or an oversight authority; and
- Evaluating tasks and/or processes associated with the hazard and its potential consequence(s).

Step 2: Assessing Severity

The SRM Lead, working with a small team, if one is assigned, will assess the severity of impact of the worst credible potential consequence(s) of the hazard if it/they occurred, taking into account existing mitigations. This includes impact to people, systems, equipment, and the environment. The assessment must be credible and follow the criteria in the Safety Risk Severity table based on MIL-STD 882E (see Appendix A, Table I). This matrix uses four severity levels:

1. Catastrophic
2. Critical
3. Marginal
4. Negligible

Step 3: Assessing Likelihood

The SRM Lead, working with a small team, if one is assigned, will assess the likelihood of the worst credible potential consequence(s) of the hazard taking into account existing mitigations. ST follows the criteria in the Safety Risk Likelihood table adapted from MIL-STD 882E (see Appendix A, Table II). The table includes six likelihood levels:

A. Frequent
B. Probable
C. Occasional
D. Remote
E. Improbable
F. Eliminated

Step 4: Determining the Safety Risk Index

The SRM Lead, working with a small team, if one is assigned, will combine the assessed severity and likelihood into a safety risk index. ST uses a Safety Risk Assessment Matrix adapted from MIL-STD 882E that assigns an alphanumeric rating for each potential consequence to prioritize safety risk (see Appendix A, Table III). This step assists ST's SRM lead in rating the tolerability of the safety risk as:

- **Low (Acceptable without Review)** – ST determines that existing mitigations adequately address safety risk and management review is not necessary.

- **Medium (Acceptable with Existing Mitigations and Management Review)** – ST determines that mitigations currently in place adequately address safety risk with management review, as specified in *SAF-SRA-004-A*. Evaluations of existing mitigations include observation and analysis by subject matter experts and the review of any historical data related to the hazard and consequence under assessment. When necessary, evaluation of the effectiveness of mitigations may include reaching out to external transit experts and discussions with peer transit agencies facing similar concerns.

- **Serious (Acceptable with Monitoring and Management Review)** – ST requires management review, as specified in *SAF-SRA-004-A*, and ongoing monitoring activities to determine if the safety risk mitigation is ineffective, inappropriate, or not implemented as intended.

- **High (Unacceptable; Management Approval required)** – ST requires action to mitigate safety risk. ST will suspend service or activities related to hazards with a high safety risk index until the safety risk has mitigated to an acceptable level. As specified in *SAF-SRA-004-A*, management approval is required prior to resuming suspended activities.

Step 5: Documenting Results

The SRM Lead will open the Safety Risk Register module of ST's safety information system, and enter required information, including the hazard, hazard type, identification source and date, and the hazard's consequences, including the worst credible potential consequence(s), and the existing mitigations (hard and soft) that address the worst credible potential consequence(s), assessments regarding severity and

likelihood of the worst credible potential consequence(s), and any related or supporting documentation. Required management reviews and approvals will also be documented in the system.

Policies and Procedures

The Safety Department maintains the policies, procedures, checklists, and forms that support safety risk assessment activities. The SRM Lead records the results of the safety risk assessment process in the Safety Risk Register. Completed safety risk assessments and supporting attachments, documented in the Safety Risk Register module of the safety information system, will be periodically reviewed by the SMS Committee.

Per contractual agreement, ST's Paratransit Operations Manager, in coordination with ST's Chief Safety Officer, monitors the paratransit contractor's safety risk assessment process through quarterly on-site records reviews. ST also reviews safety risk assessment documentation submitted by the contractor, including the contractor's Safety Risk Register. ST provides post-review reports to the contractor and identifies deficiencies in the safety risk assessment process. The contractor must submit and carry out a corrective action plan for any deficiency.

Safety Risk Mitigation

Based on the results of the safety risk assessment, the safety risk associated with the worst credible potential consequences of identified hazards will be resolved through the development and implementation of mitigations. Mitigations may:

- Eliminate the safety risk of a hazard;
- Reduce the likelihood of the potential consequences of a hazard; and/or
- Reduce the severity of the potential consequences of a hazard.

The goal of ST's safety risk mitigation process is to eliminate the hazard if possible. When a hazard cannot be eliminated, ST will reduce the associated risk to the lowest acceptable level within the constraints of cost, schedule, and performance by applying the design order of precedence specified in MIL-STD 882E:

- Eliminate hazards through design selection;
- Reduce risk through design alteration;
- Incorporate engineered features or devices;
- Provide warning devices; and
- Incorporate signage, procedures, training, and personal protective equipment.

The supervisor or project manager with oversight of the organizational entity will develop mitigations, supported by the SRM Lead, the SMS Committee, and ST's subject matter experts. The appropriate department head, superintendent, or manager of the impacted department will approve the safety risk mitigation. Depending on the nature of the safety risk or mitigation, additional approvals may be required from Agency Leadership and Executive Management and/or the Accountable Executive.

Safety risk mitigations must include milestones, schedule, budget and the part(ies) responsible for implementation. As specified in Section 6, ST will monitor its operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended. This activity may include the use of mitigation monitoring plans.

The supervisor or project manager that developed the mitigation will be responsible for inputting the mitigation information into ST's safety information system. The SMS Committee will review the status of actions to implement mitigations and report any findings or concerns to the Accountable Executive. The Safety Department will include information on the development and implementation of safety risk mitigations in quarterly reports shared throughout the agency, as specified in ST's SMP statement.

Per contractual agreement, ST's Paratransit Operations Manager, in coordination with ST's Chef Safety Officer, monitors the paratransit contractor's safety risk mitigation process through quarterly on-site records reviews and mitigation documentation submitted by the contractor.

6. Safety Assurance

Safety Performance Monitoring and Measurement

Describe activities to monitor the system for compliance with procedures for operations and maintenance.

ST uses **Safety Performance Monitoring and Measurement** to evaluate our compliance with operations and maintenance procedures and to determine whether our existing rules and procedures are sufficient to control our safety risk. ST also uses Safety Performance Monitoring and Measurement to assess the effectiveness of safety risk mitigations and to make sure the mitigations are appropriate and implemented as intended. Safety Performance Monitoring and Measurement activities also include investigating safety events to identify causal factors and analyzing the information from safety reporting, including data about safety failures, defects, and conditions.

Compliance with and Sufficiency of Operations and Maintenance Procedures

ST bus operations are governed by bulletins, rules, notices, and standard operating procedures (SOPs). Bulletins are global in nature and provide direction to all employees; rules govern the daily operations of the bus system; and SOPs provide detailed information and instructions for performing specific tasks. All bulletins, rules, and procedures are reviewed and approved by the Bus Rules and Procedure Development Committee.

ST bus maintenance is governed by maintenance manuals, instructions, bulletins and vendor information. Maintenance procedures are established by Bus Maintenance and modified by Bus Engineering.

To ensure compliance with and sufficiency of operations and maintenance procedures, ST carries out the following activities:

- **Ride Evaluations**: Ride evaluations provide an opportunity for one-on-one interaction between ST Operators and ST instruction staff. During these evaluations, ST instruction staff perform firsthand observations of the operator's driving habits and provide immediate verbal and written feedback. Ride evaluations are designed to uncover and point out unsafe practices, as well as to give positive reinforcement for safe driving practices. Ride evaluations can occur as a reactive measure (post-event rides or rides initiated in response to customer complaints or documented violations of safety rules) or proactively, such as when the operator is learning a new bus line or receiving other types of instruction. The results of ride evaluations are documented in the electronic safety information system.

- **Verification of Transit Training Compliance:** Bus Technical Training personnel are responsible for ensuring bus operators comply with training requirements. Accordingly, Bus Technical Training

personnel are responsible for notifying operators of available classes scheduled throughout the year so that they are able to complete the required refresher training annually.

- **Random Observations:** Transportation Supervisors may conduct observations of Bus Operators for compliance with traffic laws, ST operating rules, and procedures. Any observed rule violations will be documented and submitted to Bus Transportation Division Management.

- **Behavior-Based Safety Observations**: Managers or technical specialists observe employees or contractors performing their assigned tasks and evaluate their actions based on ST's safety policies and procedures and task-specific processes or procedures, if applicable. After each session, the manager or technical specialist discusses what they observed with the employee or contractor they observed and discusses any unsafe or potentially unsafe acts they may have observed. Sessions focus on constructively and positively reinforcing safe acts, gaining employee commitment to identify and avoid unsafe acts, and encouraging two-way communication about safety-related concerns. The manager or technical specialist performing the observations immediately addresses and acts on any observed life-threatening and unsafe behaviors.

- **Vehicle and Facility Inspections and Records Reviews**: Trained personnel from each ST department or division conduct and document monthly safety inspections at their maintenance and operations facilities for vehicles and infrastructure. These personnel also perform records reviews and trend analyses regarding the results of vehicle and facility inspections to focus follow-up activities. Results are documented on standard ST departmental forms.

- **Video Monitoring**: ST's onboard monitoring system is a gravitational force equivalent (or G-force) based video-monitoring system. When an event on a bus reaches a threshold, the system records video footage. Operations staff review video events daily to ensure timely coaching, retraining, or discipline for unsafe acts. Coachable events are placed in the coaching queue to be addressed one-on-one with operators by supervisors and training personnel. Additionally, supervisors review recordings when operators self-report non-compliance with safety rules or as a result of other employee reports. Operations staff also notify the Maintenance Manager of any events that relate to the Maintenance Department for coaching, retraining, and/or discipline.

Managers of ST's Operations and Maintenance Departments report on these activities monthly to the Chief Safety Officer. Each report documents, for the previous month, the results of:

- Rules compliance activities in the department, including coaching, retraining, or discipline for unsafe acts,

- Inspections of the department's equipment and infrastructure elements,

- Quality control and quality assurance assessments and reviews in the department, and

- Supervisor observations of activities performed in the department.

Data and information are analyzed to identify trends and allow monthly and annual comparisons.

Based on these reports, the Chief Safety Officer works with the managers in each department to review and investigate findings with implications for agency-wide compliance with and sufficiency of operations and maintenance procedures, and to determine the root cause and contributing factors for any issues.

The Chief Safety Officer presents the results of the reviews and investigations to the SMS Committee quarterly. The SMS Committee determines what, if any, action is required, and directs pertinent department personnel to document and track actions taken in the agency's safety information system.

Describe activities to monitor operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended.

Monitoring Safety Risk Mitigations

ST monitors safety risk mitigations to determine if they may be ineffective, inappropriate, or not implemented as intended. ST supervisors, managers and subject matter experts, working with the ST Safety Department, develop mitigation monitoring plans for mitigations implemented through ST's SRM process. The SMS Committee approves mitigation monitoring plans and track them through the Safety Risk Register module of ST's safety information system.

Mitigations found to be ineffective, inappropriate or not implemented, as intended, must go through the SRM process. The Safety Department oversees and tracks the assignment of responsibilities and timelines for implementing new mitigations and eliminating mitigations that are no longer necessary or effective.

To measure the effectiveness of existing safety risk mitigations, which may not have been assessed yet through ST's SRM process, ST's Safety Department and SMS Committee also:

- Review results from safety event investigations;
- Monitor employee safety reporting;
- Monitor the service delivery and operational environment;
- Monitor operational functions to verify that operations activities are carried out in accordance with standard operating procedures (SOPs);
- Monitor maintenance functions to verify that maintenance activities are carried out in accordance with SOPs;
- Review results of internal safety audits and inspections;
- Review results of safety inspections by external entities; and
- Analyze operational and safety data to identify emerging safety concerns.

During SMS Committee meetings, a standing agenda item focuses on the results of these reviews and monitoring activity. Based on its assessment of the situation, the SMS Committee and the Chief Safety Officer will determine whether additional investigation and/or monitoring is required, or if the specific issue or condition needs to be addressed through ST's SRM process.

Per contractual agreement, ST's Paratransit Operations Manager, in coordination with ST's Chief Safety Officer, monitors the paratransit contractor's safety risk mitigation monitoring process through quarterly on-site records reviews and documentation that the contractor submits. ST provides post-review reports to the contractor and identifies deficiencies in the monitoring process. The contractor must submit a corrective action plan for any deficiency.

The Safety Department ensures that ST carries out and documents all monitoring activities. The Safety Department reports the results to the Accountable Executive and/or executive management as directed by the Accountable Executive or SMS Committee. Specific procedures on how to carry out safety risk mitigation monitoring activities and forms to document those activities are on file in the Safety Department.

Describe activities to conduct investigations of safety events to identify causal factors.

Safety Event Investigations to Identify Casual Factors

ST maintains documented procedures for conducting investigations of safety events (accidents, incidents, and occurrences, as defined in 49 CFR Part 673) to find causal and contributing factors and review the existing mitigations in place at the time of the safety event. *ST's Safety Event Investigation Procedures Manual* contains specific procedures for conducting safety investigations.

Local law enforcement also may respond to any ST safety event. As noted in ST's manual, ST will coordinate its investigation process with local law enforcement.

Operations and maintenance management are responsible for immediately notifying the Safety Department of any safety event that meets ST's thresholds. The Safety Department notifies the Accountable Executive (or designated personnel) of any events that resulted in a fatality, serious injury, or property damage to ST's vehicles or private vehicles that may exceed $25,000. The Safety Department ensures that all safety events are recorded and tracked in an electronic Safety Event Log in the safety information system.

The Safety Department also ensures compliance with reporting thresholds, requirements, and processes defined in *FTA's NTD Safety and Security Policy Manual* and with notification thresholds established by the National Transportation Safety Board and the AnyState Department of Transportation.

ST's general safety investigation process consists of five basic phases.

- **Set up**: Assemble an investigation team with the required skills and expertise.
- **Fact gathering**: Record facts pertinent to understanding the circumstances leading to the safety event.
- **Event reconstruction**: Reconstruct the sequence of events.

- **Data analysis**: Analyze the information obtained through fact gathering and event reconstruction to assess the safety risk and provide explanations of the technical and operational factors and any underlying organizational factors and issues.
- **Establish conclusions**: Draw conclusions from the collected and analyzed information based on:
    - Main and direct causes and contributing factors leading to the event.
    - Findings that point out additional hazards that have the potential to introduce safety risk but did not play a direct role in the event.
    - Other findings that have potential to improve the safety of the transit system.

General Investigation Process

Safety Event Investigation Procedures

ST's safety event investigation procedures follow these steps:

- Bus Operators or Operations Supervisors notify Control Center/Dispatch of the safety event. The Operator of the affected transit vehicle follows seven basic emergency steps:
    - Stay calm.
    - Assess the situation.
    - Obtain help.
    - Protect people, then property.
    - Reassure and assist the passengers.
    - Secure the scene.
    - Gather information.
- Control Center/Dispatch immediately notifies Operations Management and the designated Safety Department representative.
- The investigation team is activated. This team normally consists of a trained Safety Department staff person and a trained Operations Supervisor or Training Instructor. The number and management level of the investigation team is based on the size and scale of the safety event.
- The investigation team arrives at the scene as soon as possible with tools to conduct the investigation. (The Safety Event Investigation Procedures manual provides a list of these tools.)
- The investigation team secures the scene and collects facts about what occurred, including interviewing the operator involved, if possible.
- The investigation team begins the technical investigative process, which includes but is not limited to the following:
    - Noting the environmental factors surrounding the safety event, such as lighting and visibility, road surface conditions, climate, and weather conditions.
    - Collecting vehicle and roadway evidence, including vehicle condition and position for all vehicles involved in the incident.

- Recording tire marks, skid marks, tire tread prints, and yaw marks.
- Observing braking-related factors.
- Observing debris and vehicle fluids.
- Observing contact and induced damage.
- Making exterior damage assessments.
- Photographing the scene.
- Sketching the field.
- Interviewing other drivers; witnesses; passengers; fire, emergency medical services, and police personnel at the scene. Interviewing maintenance personnel, if necessary, at a later date.
- Making a drug-and-alcohol testing decision.
- Finalizing the vehicle event and incident report form.

Identifying Causal and Contributing Factors

ST is committed to examining all safety events to determine causal and latent organizational factors that may have contributed to the safety event. This includes examining:

- Process;
- People/human factors;
- Management decision-making and resource support;
- Equipment, tools, and materials;
- Operating environment;
- Environmental issues;
- Existing relevant mitigations; and
- Other causes and contributing factors, as appropriate.

The investigators prepare a report based on this causal analysis and send copies to the Safety Department for immediate action (if necessary) and to the Accident and Incident Review Board for integration into their analysis of the event.

Accident and Incident Review Board

ST's Accident and Incident Review Board reviews information on all accidents and incidents to occur on ST property or involving ST vehicles, equipment or employees. The Accident and Incident Review Board does not review occurrences, as defined in 49 CFR § 673.5

ST's Accident and Incident Review Board consists of seven members that represent management, the union, operations, and maintenance. The Chief Safety Officer chairs the board. The review board determines whether:

- The accident or incident was preventable or non-preventable;

- Personnel require discipline or retraining;
- The causal factor(s) indicate(s) an unexpected or previously unconsidered operating condition or situation or an existing mitigation that may be ineffective, inappropriate, or not implemented as intended; or
- The accident or incident appears to involve underlying organizational causal factors beyond just individual employee behavior.

ST's Accident and Incident Review Board refers its findings to the Safety Department for further analysis and potential examination through ST's SRM process. Information on causal factors identified or confirmed by ST's Accident and Incident Review Board is filed in the CSO's office.

Per contractual agreement, the paratransit contractor must immediately notify ST's Paratransit Operations Manager of any safety event that meets defined minimum thresholds. ST also monitors the paratransit contractor's safety investigation processes by reviewing investigation reports, causal analysis activities, and the contractor's response to investigation reports and causal analysis findings. The contractor is required to submit documentation on safety investigation activities to ST.

The Safety Department maintains all documentation of ST's investigation policies, processes, forms, checklists, activities, and results.

Describe activities to monitor information reported through internal safety reporting programs.

Internal Safety Reporting Programs

The Chief Safety Officer and SMS Committee routinely review safety data and information captured in employee safety reports, safety meeting minutes, customer complaints, and other safety communication channels. When necessary, the SMS Executive and SMS Committee ensure that the issues and concerns are investigated or analyzed through ST's SRM process.

The Chief Safety Officer and SMS Committee also review internal and external reviews, including audits and assessments, compliance with operations and maintenance procedures, and the effectiveness of safety risk mitigations. The Chief Safety Officer discusses relevant safety issues and concerns with the Accountable Executive and executive management.

Per contractual agreement, the paratransit contractor must send quarterly reports to ST's Paratransit Operations Manager documenting information reported through its internal safety reporting programs.

Management of Change

Describe the process for identifying and assessing changes that may introduce new hazards or impact safety performance.

ST understands that change may affect the appropriateness or effectiveness of existing risk mitigation strategies. In addition, change may inadvertently introduce new hazards and safety risk into ST's service. Therefore, ST has established a formal process for identifying and assessing changes that may introduce new hazards or impact our safety performance. If, as a result of this process, we determine a change may impact our safety performance, then we evaluate the proposed change through our SRM process.

ST's Management of Change Committee or MoCC leads this process. The Accountable Executive appoints MoCC members, including 10 total representatives from operations, maintenance, engineering, procurement, safety, and human resources, for a two-year term that begins January 1 of each even-numbered year. The MoCC is chaired by the Chief Safety Officer and meets quarterly.

ST's management of change process is agency-wide and applies to all new and existing system elements. It includes changes identified through our configuration management process, engineering modification request process, and safety certification process, as well as an active scan of changes resulting from:

- Design and implementation of new systems and other capital projects,

- Changes to existing systems or service,

- New services provided to the public,

- New operations or maintenance procedures,

- Changes to existing operations or maintenance procedures,

- Organizational changes, including Agency Leadership and Accountable Executive changes,

- Changes in capabilities and organizational capacity,

- Procurement process changes, and

- Changes to relevant regulations, laws, policies or the FTA's National Public Transportation Safety Plan or Safety Directives or Bulletins that may impact ST's safety programs.

On a quarterly basis, under the direction of the Accountable Executive, the MoCC requests input from ST departments regarding changes with the potential to impact safety performance. ST trains its managers on when and how to identify and report anticipated changes to the committee.

Each quarter, the MoCC also reviews outputs from ST's configuration management process, engineering modification request process, safety certification process, rulebook update and general order system, and route planning process.

When the MoCC determines a change may impact ST's safety performance, the committee directs the Chief Safety Officer to evaluate the change through the SRM process or to ensure another department or contractor is evaluating it through the SRM process.

The SRM process includes identifying a change's associated hazards and potential consequences, assessing safety risk, and, when necessary, creating new safety risk mitigations or modifying existing mitigations. When ST makes a change that requires new or revised mitigations, it monitors these mitigations as described in the mitigation monitoring section above.

Per contractual agreement, the paratransit contractor must have a management of change process that complies with 49 CFR Part 673 and addresses the changes specified in this section. ST's Paratransit Operations Manager monitors the contractor's implementation of this process.

The Safety Department maintains policies, procedures, and documentation related to ST's management of change activities.

Continuous Improvement

Describe the process for assessing safety performance. Describe the process for developing and carrying out plans to address identified safety deficiencies.

ST uses a continuous improvement process to monitor and improve our SMS and safety performance. ST conducts an annual safety performance assessment at the beginning of each fiscal year. If we identify any deficiencies as part of the safety performance assessment, we develop and carry out, under the direction of the Accountable Executive, a plan to address the identified safety deficiencies.

ST's process for assessing its safety performance includes:

- Monitoring the achievement of safety objectives and safety performance indicators and targets.
- Reviewing the effectiveness of:
  o Hazard identification, safety risk assessment, safety risk mitigation development, and management of change activities;
  o Operations and maintenance procedure monitoring activities;
  o Safety risk mitigation monitoring activities;
  o Safety investigation activities;
  o Voluntary ESRP;
  o Safety competencies and training efforts; and
  o Safety communication.

The Safety Department is responsible for assessing ST's safety performance because of its safety expertise and functional independence from operations and maintenance. Safety Department strategies for

assessing safety performance and the effectiveness of ST's SMS operations include but are not limited to the following:

- Reviewing safety data, including data related to safety objectives and safety performance indicators and targets;

- Conducting employee surveys to measure the effectiveness of the ESRP, safety training, and safety communication;

- Using audit checklists to identify how well the processes, activities, and tools within the SMS are performing;

- One-on-one and group interviews of key service-delivery and support stakeholders;

- Attending safety committee meetings and safety meetings;

- Conducting field observations;

- Auditing regulatory compliance; and

- Reviewing SMS documentation.

At times, ST may choose to use an outside independent auditor to assist the Safety Department in its safety performance assessment activities.

The Safety Department provides reports on the results of safety performance assessments to the Accountable Executive and executive management. The Safety Department maintains documentation of the safety performance assessments, including checklists and tools.

ST supports continuous improvement by addressing deficiencies it discovers during assessments of safety performance and SMS operations assessments. ST uses corrective action plans to address safety deficiencies and substandard performance of SMS operation to drive the continuous improvement effort. ST also may choose to use outside expertise to assist in addressing safety deficiencies. These corrective action plans are carried out under the direction of the Accountable Executive and ST's Chief Safety Officer reports on the status of these corrective action plans to the Accountable Executive each quarter.

Per contractual agreement, the paratransit contractor must have a continuous improvement process that complies with 49 CFR Part 673 and addresses the elements specified in this section. ST's Paratransit Operations Manager monitors the contractor's implementation of this process.

7. Safety Promotion

Competencies and Training

Describe the safety training program for all agency employees and contractors directly responsible for safety.

Safety promotion ensures that ST employees and contractors are aware of policies and procedures related to the safety of agency operations, and specifically as related to their areas of work. ST's comprehensive safety training program applies to all ST employees directly responsible for safety, including:

- Bus vehicle operators,
- Dispatchers,
- Maintenance technicians,
- Managers and supervisors,
- Agency Leadership and Executive Management,
- Chief Safety Officer and Safety Department, and
- Accountable Executive.

Training has been developed for each designated position throughout the agency, appropriate to the position's individual safety-related job responsibilities and role in the SMS. This training includes instruction and testing to verify initial competency, as well as refresher training and recertification requirements to ensure employees remain current on the agency's policies and procedures. Basic training requirements for ST employees, including frequencies and refresher training, are documented in ST's Safety Training Matrix and the ST Employee Handbook.

Operations safety-related skill training includes the following:

- New hire bus operator classroom and hands-on skill training;
- Bus operator refresher training;
- Bus operator retraining (recertification or return to work);
- Skill training for bus shifters and fuelers;
- Skill training for bus cleaners;
- Skill training for painting and body-shop personnel;
- Classroom and on-the-job training for control center employees/schedulers/dispatchers at the time of external hire or internal promotion;

- Classroom and on-the-job training for operations supervisors at the time of external hire or internal promotion; and

- Safety event investigation training, including the Transportation Safety Institute (TSI) Fundamentals of Bus Collision Investigation and on-the-job training.

Vehicle maintenance safety-related skill training includes the following:

- Ongoing vehicle maintenance technician skill training;

- Ongoing skill training for vehicle maintenance supervisors;

- Safety event investigation training for vehicle maintenance supervisors;

- Ongoing hazardous material training for vehicle maintenance technicians and supervisors; and

- Training provided by vendors.

Facility maintenance safety-related skill training includes the following:

- Ongoing facility maintenance technician skill training;

- Ongoing skill training for facility maintenance supervisors;

- Ongoing hazardous material training for facility maintenance technicians and supervisors; and

- Ongoing fire prevention training for facility maintenance technicians and supervisors.

For the Safety Department, ST participates in the Voluntary Bus Safety Training Program outlined in FTA's Public Transportation Safety Certification Training Program regulation, 49 CFR Part 672. ST's designated Safety Department personnel will complete the following curricula, in accordance with the Program's specifications:

- SMS Awareness (e-Learning);

- Safety Assurance (virtual instructor-led);

- SMS Principles for Transit (classroom); and

- Transit Safety and Security Program managed by TSI:

    o Effectively Managing Transit Emergencies,

    o Transit Bus System Safety, and

    o Fundamentals of Bus Collision Investigation.

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

ST also conducts SMS initial and refresher training on basic SMS principles and the mandatory and voluntary ESRP for frontline and supervisory operations and maintenance employees.

ST's Paratransit Operations Manager regularly monitors contractor safety skill training and SMS training, including refresher training, to ensure the contractor is supporting ST's safety and safety management

mission and complying with ST's requirements. ST's Paratransit Operations Manager documents monitoring activities and results in formal reports and audits.

Safety Communication

Describe processes and activities to communicate safety and safety performance information throughout the organization.

In accordance with ST's SMP statement, ST actively encourages the open sharing of information on all safety issues throughout our organization. To ensure effective communication throughout the agency, ST has established formal processes and approaches, including:

- **Dissemination of safety and safety performance information throughout ST's organization**. The communication of safety performance information follows the top-down, agency-wide model of the agency's SMS. The Chief Safety Officer is responsible for reporting on the agency's safety performance to the Accountable Executive. These reports may include, but are not limited to, performance relative to the agency's safety performance targets, updates related to mitigation monitoring plans and corrective action plans, and unusual events.

  In accordance with guidance distributed by the Chief Safety Officer, leadership throughout the agency (including executives, superintendents, directors, managers, and supervisors) are responsible for communicating safety performance information with their teams.

  The Safety Department is responsible for using the safety information system to develop regular status reports on safety risk mitigations and open corrective actions for dissemination to the SMS Committee and Joint Labor and Management Safety Committees for discussion.

  The Safety Department also issues quarterly reports on ST's safety performance and progress in meeting the safety objectives outlined in the SMP statement throughout the agency.

- **Communication of information on hazards and safety risk relevant to employees' roles and responsibilities throughout the agency.** As part of new-hire training, ST distributes safety policies and procedures, included in the ST Employee Handbook, to all employees. ST provides training on these policies and procedures and discusses them during safety talks between supervisors and bus operators and vehicle technicians. For newly emerging safety issues or safety events at the agency, ST's Chief Safety Officer issues bulletins or messages to employees that are reinforced by supervisors in one-on-one or group discussions with employees. ST's Training Department also develops materials and courses to explain the rationale behind changes to policies, procedures, and work instruction that address hazards and safety risk relevant to employees' roles and responsibilities.

  The Safety Department works with ST's executive and management teams (representing all appropriate functions) to define specific, safety-related information that ST needs to communicate to different employee groups. ST also uses multiple approaches to communicate

pertinent safety information to the Board of Directors, management, and individual employees across all ST functions, as appropriate.

- **Explaining actions taken in response to employee reporting**. ST provides targeted communications to inform employees of safety actions taken in response to reports submitted through the ESRP, such as newsletters, handouts and flyers, safety talks, updates to bulletin boards, and one-on-one discussions between employees and supervisors.

The Safety Department works with each operating function to ensure that all SMS and safety communication-related activities take place as scheduled. The Safety Department also maintains documentation of communication processes and procedures and records of safety communications.

ST's Paratransit Operations Manager regularly monitors contractor safety communication activities to ensure the contractor is supporting ST's safety and SMS mission and complying with ST's requirements. ST's Paratransit Operations Manager documents these monitoring activities and results in formal reports and audits.

8. Additional Information

Supporting Documentation

Include or reference documentation used to implement and carry out the ASP that are not included elsewhere in this ASP.

ST and its contractor will maintain documentation related to the implementation of its SMS; the programs, policies, and procedures used to carry out this ASP; and the results from its SMS processes and activities for three (3) years after creation. This documentation will be available to the Federal Transit Administration or other Federal or oversight entity upon request.

Part 673 Definitions of Terms Used in the Safety Plan

ST incorporates all of FTA's definitions that are in 49 CFR § 673.5 of the Public Transportation Agency Safety Plan regulation.

- **Accident** means an Event that involves any of the following: A loss of life; a report of a serious injury to a person; a collision of public transportation vehicles; 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.

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

- **Agency Safety Plan** means the documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and Part 673.

- **Chief Safety Officer** means an adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Chief Safety Officer may not serve in other operational or maintenance capacities, unless the Chief Safety Officer is employed by a transit agency that is a small public transportation provider as defined in Part 673, or a public transportation provider that does not operate a rail fixed guideway public transportation system.

- **Equivalent Authority** means an entity that carries out duties similar to that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient's Agency Safety Plan.

- **Event** means any Accident, Incident, or Occurrence.

- **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 a public transportation system; or damage to the environment.

- **Incident** means an 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 a transit agency.

- **Investigation** means the process of determining the causal and contributing factors of an accident, incident, or hazard for the purpose of preventing recurrence and mitigating risk.

- **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** means an Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a transit agency.

- **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 FTA.

- **Risk** means the composite of predicted severity and likelihood of the potential effect of a hazard.

- **Risk mitigation** means a method or methods to eliminate or reduce the effects of hazards.

- **Safety Assurance** means processes within a transit agency's Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

- **Safety Management Policy** means a transit agency's documented commitment to safety, which defines the transit agency'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 a Chief Safety Officer or an equivalent.

- **Safety performance target** means a performance target related to safety management activities.

- **Safety Promotion** means a combination of training and communication of safety information to support SMS as applied to the transit agency'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 (SRM)** means a process within a transit agency's Agency Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.

- **Serious injury** means any injury which: (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date when 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 a State of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.

- **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.

Acronyms

Acronym	Word or Phase
ASP	Agency Safety Plan
CAP	Corrective Action Plan
CEO	Chief Executive Officer
ESRP	Employee Safety Reporting Program
FTA	Federal Transit Administration
MoCC	Management of Change Committee
MPO	Metropolitan Planning Organization
PTASP	Public Transportation Agency Safety Plan
SMP	Safety Management Policy
SMS	Safety Management System
SOP	Standard Operating Procedure
SRM	Safety Risk Management
ST	Straightline Transit
TSI	Transportation Safety Institute
U.S.C.	United States Code
VRM	Vehicle Revenue Miles

Appendix A: Hazard Risk Index Matrix (Adapted from MIL-STD-882E)

Table I – Severity Levels

Severity	Category	Environment, Safety, and Health Result Criteria
Catastrophic	1	Could result in one or more of the following: death, permanent total disability, irreversible significant environmental impact, or monetary loss equal to or exceeding $10 million.
Critical	2	Could result in one or more of the following: permanent partial disability, injuries or occupational illness that may result in hospitalization of at least three individuals, reversible significant environmental impact, or monetary loss equal to or exceeding $1 million but less than $10 million.
Marginal	3	Could result in one or more of the following: injury or occupational illness to an individual resulting in one or more lost workday(s), reversible moderate environmental impact, or monetary loss equal to or exceeding $100,000 but less than $1 million.
Negligible	4	Could result in one or more of the following: injury or occupational illness to an individual not resulting in a lost workday, minimal environmental impact, or monetary loss less than $100,000.

Table II - Likelihood Levels

Description	Level	Specific Individual Item	Fleet or Inventory
Frequent	A	Likely to occur often in the life of an item.	Continuously experienced.
Probable	B	Will occur several times in the life of an item.	Will occur frequently.
Occasional	C	Likely to occur sometime in the life of an item.	Will occur several times.
Remote	D	Unlikely, but possible to occur in the life of an item.	Unlikely, but can reasonably be expected to occur.
Improbable	E	So unlikely it can be assumed occurrence may not be experienced in the life of an item.	Unlikely to occur, but possible.
Eliminated	F	Incapable of occurrence. This level is used when potential hazards are identified and later eliminated.	Will not occur.

Table III - Risk Assessment Matrix

Likelihood \ Severity	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)
Frequent (A)	High	High	Serious	Medium
Probable (B)	High	High	Serious	Medium
Occasional (C)	High	Serious	Medium	Low
Remote (D)	Serious	Medium	Medium	Low
Improbable (E)	Medium	Medium	Medium	Low
Eliminated (F)	Eliminated			