CINCINNATI STREETCAR

AGENCY SAFETY PLAN

801 PLUM STREET

CINCINNATI, OHIO 45202

DECEMBER 30, 2024

REVISION 7

RECORD OF REVISIONS

Revision #	Revised By	Date	Issue/Revision Description
0	TJ Thorn	8/27/2019	Original Draft Document
1	TJ Thorn	10/21/2019	Removed references to Authority (meaning SORTA) in appropriate sections of the document, added a description of an "adequately trained" CSO in 22.2, added feedback process language to Section 23.
2	Paul Conway	4/8/2020	Update signature block and minor grammar edits. Remove interim status.
3	Les Shaw	4/15/2020	Replaced the "CEO" with the "City Manager," who is the Accountable Executive. Replaced the "Engineering and Project Management" with the "Department of Transportation and Engineering." Replaced "ENP text messages from the RCC" with "text messages from the City." Replaced "Security Director" with "Chief Safety Officer." Removed the fire training video statement.
4	Paul Conway	7/20/2021	Update current roles and dates. Update table of contents. Add PTSCTP training for City Staff (CSO, Streetcar Director, Transit Coordinator). Update Safety Performance Targets. Add City Address to Title page. Update and sign policy statement.
5	Paul Conway	5/10/2022	Updated ASP review date to April 30th (Section 14). Removed reference to GATIS worksheet and updated SMS implementation (Section 17). Employee Safety Committee added (Section 22.6).

			Employee suggestion box added to employee reporting (Section 23). Transit operators de-escalation training added (Section 32.5). Updated the City personnel that must go through a specific technical transit training (Section 41.1). Updated to include the separate, overarching training plan included in the Operations and Maintenance plans (Section 41.2). Update table of contents.
6	Paul Conway	10/1/2023	-Update ASP review date to November 1st to fall in line with ODOT's annual review, Section 11 -Add reference to Continuity of Operations Plan (COOP) developed by the City and Transdev, Section 32.2 -Update how rules compliance activities are monitored and how does Transdev assure QA / QC. (Sections 34.4 and 35) -Remove City Transit Coordinator from signature page - add strategies to minimize exposure to infectious disease (Section 26.7) - added employee safety reporting protection from disciplinary action (Section 23) -added employee behavior that is not protected from disciplinary action (Section 23) -detail how the City will respond to emergency Corrective Action Plans and submit CAPs to the SSOA(section 31) -added the Accountable Executive's review and signature of materials regarding the conduct and results of internal safety reviews. (section33) -update table of contents

7	Paul Conway	12/21/2024	-changed References from section 43 to section 44. -updated section 43 now covers Risk Based Inspections by ODOT - added section 22.6.1 for employee Safety committee responsibilities -Define the roles and responsibilities of the Cincinnati Transit Coordinator and Deputy Director of Streetcar Services. (Section 22.3) -update section 23 to include reports of safety concerns through the Streetcar website -Update methods of rules compliance activities to include SmartDrive system for signal violations (Section 34.4) - update the Safety Performance Targets in Table 1, section 9 to reflect NTD data from 2021-2023 -update section 22.5 to allow the SSRC to vote on items electronically via email -update the table of contents

Agency Safety Plan Review and Approval

Approved by: _____ 2/6/25
Accountable Executive

Reviewed by: _____ 2/4/2025
Director of Transportation and Engineering

Reviewed by: _____ 02/03/2025
Streetcar Deputy Director

Reviewed by: _____ 12/21/24
Chief Safety Officer of Streetcar Services

Reviewed by: Leslie Shaw _____ 02/03/24
Cincinnati Streetcar General Manager

Approval by City Council

This plan was approved by the City Council of the City of Cincinnati on ___/___/___ and reflected in the official, approved council minutes. A copy of the resolution is contained in the Appendices.

Table of Contents

1. Definitions

A list of definitions based upon those listed in 49 CFR Part 673.5 is contained in the Appendices.

2. Acronyms

A list of acronyms utilized in this Plan is contained in the Appendices.

3. Introduction

On July 19, 2018, the Federal Transit Administration (FTA) published the Public Transportation Agency Safety Plan (ASP) Final Rule, which requires certain operators of public transportation systems that receive federal funds under FTA's Urbanized Area Formula Grants to develop safety plans that include the processes and procedures to implement Safety Management Systems (SMS). The effective date of this rule is July 19, 2019. As a result, Transit operators must certify they have a safety plan in place meeting the requirements of the rule by July 20, 2020. The plan must be updated and certified by the transit agency annually.

4. Applicability

As a recipient of funds under 49 U.S.C. 5307 the City of Cincinnati is required to develop a Public Transit ASP. This document will serve as the ASP for Cincinnati Streetcar.

5. Policy

Cincinnati Streetcar has adopted the principles and methods of SMS as the basis for enhancing safety and will follow the principles and methods of SMS in the delivery of service to our community.

6. Transition from SSPP to ASP

Cincinnati Streetcar previously utilized a System Safety Program Plan (SSPP), which documented the overall safety program. The Plan was previously approved by the State Safety Oversight (SSO) Program of the Ohio Department of Transportation (ODOT) and the Board of Trustees of the Southwest Ohio Regional Transit Authority, the operator at that time. The SSPP was constituted of 21 elements which outlined and described the policies, processes and procedures associated with the safety program. To maintain the integrity of the safety program, yet be compliant with state and federal regulations, these elements were integrated into the ASP. This integration was based upon an analysis performed by the SSO to determine where and how these elements should be integrated into components of the ASP per 49 CFR Part 673.

7. Accountable Executive and City Council Approvals

In accordance with 49 U.S.C. 5329(d)(1)(A), the Accountable Executive and City Council must approve this plan. This will be accomplished via signature of the Accountable Executive, which will be affixed to this Plan, and by formal City Council Ordinance. A copy of that Motion will be included in the Appendices of this document. Additionally, the ASP will be submitted for approval to the Accountable Executive and City Council annually.

8. Modes Covered by this Plan

This Plan covers the Cincinnati Streetcar System.

9. Safety Performance Measures and Targets

Safety Performance Measures aid Cincinnati Streetcar in monitoring performance. Safety performance measures also focus on improving safety performance through the reduction of safety events, fatalities, and injuries. These Safety Performance measures are shared with our MPO annually. In accordance with the National Public Transportation Safety Plan the following Safety Performance Targets have been identified:

Safety Performance Measure		Description
1	Measure 1a – Major Events	This includes all safety and security major events as defined by the NTD.
2	Measure 1b – Major Event Rate	This includes all safety and security major events as defined by the NTD, divided by VRM.
3	***Measure 1.1 – Collision Rate (new)***	This includes all collisions reported to the NTD, divided by VRM.
4	***Measure 1.1.1 – Pedestrian Collision Rate (new)***	This includes all collisions "with a person," as defined by the NTD, divided by VRM.
5	***Measure 1.1.2 – Vehicular Collision Rate (new)***	This includes all collisions "with a motor vehicle," as defined by the NTD, divided by VRM.
6	Measure 2a – Fatalities	This includes all fatalities as defined by the NTD.
7	Measure 2b – Fatality Rate	This includes all fatalities as defined by the NTD, divided by VRM.
8	***Measure 2.1 – Transit Worker Fatality Rate (new)***	This includes all transit worker fatalities as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM.
9	Measure 3a – Injuries	This includes all injuries as defined by the NTD.
10	Measure 3b – Injury Rate	This includes all injuries as defined by the NTD, divided by VRM.
11	***Measure 3.1 – Transit Worker Injury Rate (new)***	This includes all transit worker injuries as defined by the NTD, including the categories "Transit Employee/Contractor," "Transit Vehicle Operator," and "Other Transit Staff," divided by VRM.
12	***Measure 4a – Assaults on Transit Workers (new)***	This includes all assaults on transit workers as defined by the NTD.9
13	***Measure 4b – Rate of Assaults on Transit Workers (new)***	This includes all assaults on transit workers as defined by the NTD,9 divided by VRM.
14	Measure 5 – System Reliability	This includes Major Mechanical System failures as defined by the NTD.

Table 1 Safety Performance Targets

Mode of Transit Service	Major Events(1a)	Major Event (Rate) Per 100,000 VRM (1b)	Collision (Rate) Per 100,000 VRM (1.1)	Pedestrian Collision (Rate) Per 100,000 VRM (1.1.1)	Vehicular Collision (Rate) Per 100,000 VRM (1.1.2)	Fatalities (Total) (2a)	Fatalities (Rate) Per 100,000 VRM (2b)
Cincinnati Streetcar	0	0.00	2	1.0	6	0	0.0
Mode of Transit Service	**Transit Worker Fatality (Rate) Per 100,000 VRM (2.1)**	**Injuries (Total) (3a)**	**Injuries (Rate) Per 100,000 VRM(3b)**	**Transit Worker Injury (Rate) Per 100,000 VRM (3.1)**	**Assaults on Transit Workers (4a)**	**Assaults on Transit Workers (Rate) Per 100,000 VRM**	**System Reliability VRM between failures**
Cincinnati Streetcar	0	2.0	2	0	0	0.0	10000

It should be noted that these performance targets are based on the time the City has been operating the system as documented in the National Transit Database (NTD) Safety and Security Time Series from January 2021 through December 2023.

10. Safety Plan Review, Update and Certification

In accordance with 49 U.S.C. 5329(d)(1)(A), the ASP will be certified as compliant on an annual basis. Annually, the Chief Safety Officer (or Designee) will lead a review of the ASP in conjunction with affected departments and update the ASP as necessary. Route extensions, significant changes to the operational practices, or other events may be cause for a review at any time. The ASP and any updates must be reviewed and approved by the City of Cincinnati's City Council.

11. ASP Review Schedule

The ASP will be reviewed annually by November 1st. However, any changes and approvals will be completed by January 15th. The ASP will be submitted to City Council for review and approval by February 10th.

12. ASP Control and Update Procedure

The Chief Safety Officer is responsible for control and update of the ASP. Input for annual reviews will be solicited from all Cincinnati Streetcar personnel.

13. ASP Review and Approval by City Council

In accordance with 49 U.S.C. 5329 (d)(1)(A) and 49 CFR Part 673 (1) the Public Transportation ASP, and subsequent updates, must be signed by the Accountable Executive and approved by the agency's Board of Directors, or an Equivalent Authority. Because Cincinnati Streetcar does not have a Board of Directors, the Cincinnati City Council is the equivalent authority and therefore is required to review and approve the ASP as well as any updates to the ASP.

14. Review and Approval by ODOT SSO

Cincinnati Streetcar is required to review the ASP at least annually and make any modifications, as needed to assure that the ASP is current and accurate. Each updated draft ASP submitted to the ODOT SSO program will include a summary that identifies and explains the changes. If there are no changes required for the ASP, it will be indicated.

Once the draft ASP has been determined to be ready for approval, the ODOT SSO program staff will indicate that status to the Chief Safety Officer and provide the checklist used for the review. This submittal is required to be completed by April 30th each year to coincide with the annual report to the ODOT SSO program. Upon receipt of the final ASP, the ODOT SSO program will issue written approval of the ASP to Cincinnati Streetcar within thirty (30) calendar days.

15. ASP Change Management

Any changes to the ASP will be documented in the Change Record. This Change Record will contain a summary that identifies and explains the changes for submittal to the City Council annually.

16. Coordination with the Metropolitan Planning Organization (MPO) and Non-Metropolitan Planning Organizations

Annually the Cincinnati Streetcar will create Safety Performance and State of Good Repair Measures and Targets for Cincinnati Streetcar service based upon the principal of continuous improvement. To aid in the planning process for both the State of Ohio and the local MPO these measures and targets will be transmitted to the MPO via electronic communication to the OKI Regional Council of Governments and ODOT Office of Transit. However, prior to submittal to the MPO and ODOT Office of Transit the safety performance measures and targets must be submitted to, and approved by, the SSO. The entire process will be completed prior to annual submission of the ASP to City Council.

17. Safety Management System (SMS) Implementation

To implement SMS, the Cincinnati Streetcar has taken a four-phase approach based upon a continuous improvement cycle of Plan, Do, Check, Act. Over the last 4 years the Cincinnati Streetcar has made the transition to SMS. City of Cincinnati employees have completed the

FTA's Public Transportation Safety Certification Training Program (PTSCTP) while Operations & Management (O&M) operator Transdev's management team will complete the same training in 2025. Transdev has developed a SMS training program for all employees, maintains an employee safety reporting drop box, and hosts a management/frontline employee safety meeting monthly. Employee concerns are addressed, and conclusions are shared via operators orders and break room postings. The Safety & Security department is responsible for leading implementation with assistance from the Safety and Security Review Committee (SSRC) which also serves as the SMS implementation team. The City and Transdev are committed to a culture of open safety discussions and strive for continuous improvement.

18. Safety Management Policy

Safety Management Policy establishes necessary organizational structures, roles and responsibilities. It also ensures safety is on the same priority level as other organizational functions. And it provides direction for effective safety risk management (SRM), assurance and promotion. Lastly, it helps ensure sufficient resources are provided.

19. Safety Management Policy Statement

Cincinnati Streetcar recognizes that the management of safety is a core value of our business. The management team at Cincinnati Streetcar will embrace the SMS and is committed to developing, implementing, maintaining, and constantly improving processes to ensure the safety of our employees, customers, and the general public. All levels of management and frontline employees are committed to safety and understand that safety is the primary responsibility of all employees.

Cincinnati Streetcar is committed to:

- Communicating the purpose and benefits of the SMS to all staff, managers, supervisors, and employees. This communication will specifically define the duties and responsibilities of each employee throughout the organization and all employees will receive appropriate information and SMS training.
- Providing appropriate management involvement and the necessary resources to establish an effective reporting system that will encourage employees to communicate and report any unsafe work conditions, hazards, or at-risk behavior to the management team.
- Identifying hazardous and unsafe work conditions and analyzing data from the employee reporting system. After thoroughly analyzing provided data, the transit operations division will develop processes and procedures to mitigate safety risk to an acceptable level.
- Ensuring that no action will be taken against employees who disclose safety concerns through the reporting system, unless disclosure indicates an illegal act, gross negligence, or deliberate or willful disregard of regulations or procedures.
- Establishing safety performance targets that are realistic, measurable, and data driven.

- Continually improving our safety performance through management processes that ensure appropriate safety management action is taken and is effective.

A signed copy of this statement is contained in the Appendices.

20. Safety Management Policy Communication

This Safety Management Policy Statement is communicated to the City Council via the annual review and approval process. It is also communicated to Streetcar employees and contractors through the use of communication boards at the Maintenance and Operations facility as well as on our website at https://www.cincinnati-oh.gov/streetcar/. An employee may also request a printed copy from their supervisor. A signed copy of the Safety Management Policy Statement is contained in the Appendices.

21. Emergency Preparedness and Response Plans

Cincinnati Streetcar's emergency preparedness and response plans, which are incorporated here by reference, include the Security and Emergency Preparedness Plan (SEPP) and Emergency Operations Plan (EOP).

21.1. Emergency Response Personnel Training

Training to familiarize fire, rescue, and other emergency service personnel with special transit system requirements is coordinated through and conducted by O&M Contractor.

Emergency preparedness and response drills are planned and conducted with emergency services and Cincinnati Streetcar personnel to a) ensure the adequacy of emergency plans and procedures; b) ensure readiness personnel to perform under emergency conditions; and c) effectively coordinate between and emergency response agencies. These exercises and drills are coordinated through the O&M Contractor and include potentially affected operations personnel.

22. Authorities, Accountabilities, and Responsibilities

22.1. Accountable Executive

The City of Cincinnati City Manager serves as the Accountable Executive for the Cincinnati Streetcar and is ultimately responsible for the Safety Program. The Accountable Executive is responsible for ensuring there are adequate resources to develop and maintain both the ASP and Transit Asset Management Plan and approving the ASP annually.

22.2. Chief Safety Officer

The Chief Safety Officer reports directly to the Accountable Executive and is responsible for the following: developing and maintaining SMS documentation; directing hazard identification and safety risk assessment; monitoring safety risk mitigation activities; providing periodic reports on safety performance; briefing the Accountable Executive and City Council on SMS implementation progress; and planning safety management training. The Chief Safety Officer

will be adequately trained. Adequate training is defined as having completed or in process of completing the PTSCTP for Rail and be a graduate of an accredited University or College.

22.3. Executive Management

In addition to the Accountable Executive and Chief Safety Officer the Transit Coordinator (TC) and the Streetcar Deputy Director (SD) have responsibility for day-to-day implementation of the SMS including but not limited to.

- Develop the annual safety performance report (TC)
- Document and process Management of change activity (TC)
- SSRC vice chair (TC)
- Safety and Security certification for small projects (TC)
- Monitor and analyze accident/incident data (TC)
- Develop the presentation for the SSO Quarterly meeting (TC)
- Safety performance monitoring (TC)
- Assist CSO with Safety monitoring (SD)
- Engage in budget and resource management including funding opportunities to enhance the system (potential FEMA grants) (SD)
- Operational oversight and service performance monitoring (SD)

22.4. Key Staff

The SSRC is designated as key staff to support the Accountable Executive and Chief Safety Officer in developing, implementing, and operating the SMS. Additionally, the SSRC will serve as SMS Ambassadors to promote the SMS program through communication and training.

22.5. Safety and Security Review Committee

The SSRC is a multi-disciplinary working group that serves as a high-level committee to address all safety and security issues as well as review and approval of configuration management items. Committee membership includes representation from the following functional areas: safety, security, engineering, planning, operations and maintenance. ODOT representatives are invited to attend all SSRC meetings. The committee is chaired by the Chief Safety Officer and co-chaired by the City Transit Coordinator. The SSRC can vote to approve items brought to the committee at the normally scheduled meeting or electronically through e-mail. For more detailed information about the SSRC please refer to the Cincinnati Streetcar SSRC procedure.

22.6. Monthly Employee Safety Committee

The Employee Safety Committee is a working group composed of O&M management, operators, maintenance, and support staff along with the City Chief Safety Officer and City Transit Coordinator. This group meets monthly to discuss any issues that frontline employees encounter and works on specific mitigations. The committee is comprised of an equal number of frontline (union) and management employees, typically 4 of each. Union employees include operators, vehicle maintenance, and maintenance of way staff. The Safety Committee is chaired by the Operations Manager or designee (typically the Chief Safety Officer). Safety Committee Agendas and Meeting Minutes will be printed and shared with all staff and electronic copies of

the minutes are sent to the SSO and Accountable Executive monthly. Safety Committee meetings occur during normal business hours during a normal work shift. Safety Committee decisions are voted on by the members in attendance and recorded in the minutes. Any disputes that cannot be worked out at the Safety Committee will be resolved by the Collective Bargaining agreement. If the Safety 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 will prepare a written statement explaining their decision, pursuant to recordkeeping requirements at § 673.31. The Accountable Executive will submit and present this explanation to the transit agency's Safety Committee and City council.

22.6.1 Employee Safety Committee Responsibilities:

-1 Review and approve the transit agency's Public Transportation Agency Safety Plan and any updates as required at § 673.11(a)(1)(i);

-2 Set annual safety performance targets for the safety risk reduction program as required at § 673.11(a)(7)(iii); and

-3 Support operation of the transit agency's SMS by:

(i) 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;

(ii) 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

(iii) Identifying safety deficiencies for purposes of continuous improvement as required at § 673.27(d), including any instance where the transit agency did not meet an annual safety performance target in the safety risk reduction program.

(iv) The Safety Committee will identify any deficiencies in the transit agency's performance against annual safety performance targets set by the Safety Committee under § 673.19(d)(2) for the safety risk reduction program required in § 673.11(a)(7).

23. Employee Safety Reporting Program

Cincinnati Streetcar has established a Safety Reporting System for the public and employees to report identified hazards or safety concerns. Employees are encouraged to report safety concerns and may do so through the following means including, but not limited to: Employee Safety Committee, Employee Safety Anonymous Drop Box, and immediate manager or supervisor. The City and the City's O&M contractor will not retaliate against any employee reporting a safety concern. This includes protection from termination, compensation decrease,

a poor work assignment, and threats of physical harm. To close the feedback loop Cincinnati Streetcar will provide an update to employees regarding the results of any investigations and (or) action taken arising out of their report. Employee behavior that is not protected from disciplinary action includes, but is not limited to:

- Preventable Accidents/Incidents
- Threats, intimidation, harassment, physical violence or fighting while on duty
- Possession of firearms, weapons, explosives, or similar devices on Company premises or any time while on duty
- Abusive, harassing, or threatening behavior toward a passenger, any member of the public, fellow employee, supervisor, or other company official

The public may report concerns to the Cincinnati Customer Service Request hotline at 513-591-6000, which will notify Streetcar management for follow-up. The public can also report safety concerns on the Streetcar's website at this link https://www.cincinnati-oh.gov/streetcar/ .

24. Safety Risk Management

SRM is vital to the success of the SMS. And before an SMS can be effectively built or improved, safety hazards must be identified and mitigations in place to manage the safety risk. SRM is a continuous process, which includes the following activities: Safety hazard identification, safety risk assessment, and safety risk mitigation.

25. Safety Risk Management Process

The SRM Process identifies and analyzes hazards and potential consequences. It then expresses safety risks for each consequence in terms of probability and severity to determine if the risk is acceptable and if not utilizes safety risk mitigation to lower the safety risk. The process also includes interaction with safety assurance to ensure hazards are tracked after safety risk mitigation has taken place. In all cases safety risk mitigation activities are documented.

26. Safety Hazard Identification

Effective Hazard Identification is supported by sources, training on proper identification and reporting and promotion of the safety reporting program to employees and the public. Potential sources for hazard identification and their consequences include the following: Safety Reporting System (employee program and public reporting), safety event (accidents, incidents occurrences), internal audits, safety committees, government sources (ODOT,FTA, NTSB), industry partners (American Public Transit Association - APTA) operational observations, review of historical data, scenario development and review, Job Hazard Analysis (JHA)/Job Safety Analysis (JSA), accident/incident investigations data review and ad hoc hazard reporting.

As referenced in Section 3.5 Reporting to the State Safety Oversight Agency (SSOA) of the Hazard Management Plan, Cincinnati Streetcar has established a Hazard Tracking Log, which reflects the consolidation of information in the hazard management process. The Hazard Tracking Log will contain all hazards identified through the methods applied by Cincinnati Streetcar. The Hazard Tracking Log will be submitted to ODOT's designated point of contact on the 15th day after the end of the month.

For more information see the Cincinnati Streetcar Hazard Management Plan.

26.1. Safety Certification Process

The Safety and Security Certification Plan ensures that any design or operating hazards/threats are identified, monitored, and properly controlled or mitigated, prior to the commencement of revenue service. The Safety and Security Certification Plan addresses all systems and equipment, which may reasonably be expected to pose hazards/threats to customers, employees, contractors, emergency responders, and the general public. The plan identifies the technical and managerial tasks required during the design, supply, construction, and commissioning of any project or equipment.

The City of Cincinnati certifies that all safety critical systems and major capital projects that may impact passenger, employee, or public safety are operationally ready to enter safe and secure revenue service as further delineated in Cincinnati Streetcar's Safety and Security Certification Plan provided. Safety and security operational readiness is demonstrated through a safety and security certification program that is developed and implemented for each subsequent operating segment and phase.

The goals of the safety and security certification program are to verify that identified safety and security requirements have been met and to provide evidence that the new or rehabilitated equipment, systems and facilities are safe to use by passengers, employees, contractors, emergency responders, and the public by:

- Verifying that appropriate codes, standards, and guideline, including the most recent Safety and Security Design Criteria, have been incorporated into the specifications.
- Ensuring that a thorough and complete system safety/security engineering process is followed throughout the acquisition process.
- Ensuring that all identified hazards/threats have been eliminated or controlled.
- Ensuring that normal and emergency hazard resolution methodologies have been implemented.
- Ensuring that all training required for the safe/secure operation of the new vehicles is complete.
- The objectives of the safety and security certification program that support the above goals include:

    - Identify specific safety and security requirements to ensure the most comprehensive specification possible to avoid inadvertent hazards/threats.
    - Verify that all documentation identified as safety critical has been reviewed to ensure compliance with safety criteria.
    - Facilities and equipment have been constructed, manufactured, inspected, installed, and tested, in accordance with safety and security requirements in the Design Criteria and contract documents.

- Assure that operations and maintenance manuals reflect appropriate procedures necessary for control of hazards and include appropriate warnings, hazards, and cautions required for safety critical operations.
- Training documents have been developed for the training of operating personnel, and emergency response personnel.
- Transportation and maintenance personnel have been properly trained and qualified regarding potentially hazardous operations.
- Emergency response agency personnel have been prepared to respond to emergency situations in or along the alignment system.
- Verify that testing associated with elimination of control of hazards has been completed.
- All security related issues have been addressed and resolved.
- Create a verification-tracking log to track all safety related closures that are not complete at the time of revenue operations.

An outline of the certification process is shown below. The process began with system design and continued through the start of revenue operation. The process is ongoing for continuous improvement.

1. Identify those safety and security related elements to be certified
2. Establish Safety & Security Design Criteria
3. Prepare the Design Criteria Conformance Checklists
4. Verify conformance with Design Criteria
5. Prepare the Specification Conformance Checklists
6. Verify conformance with Specifications
7. Perform testing, training, and emergency response coordination
8. Manage Integrated Testing
9. Resolve all Open Items
10. Perform Pre-Revenue Testing
11. Approve completed checklists and issue Project Safety & Security Certificate

Each critical system element receives a written safety/security certificate. When all required system elements are certified, a system-wide safety/security certificate is issued along with a safety/security verification report. Final authority to approve certification of extensions for revenue service rests with the City Manager.

The City of Cincinnati and Southwest Ohio Regional Transit Authority certified the project in 2016. Formal safety certification is required for all new, extended, rehabilitated or modified systems or components including replacement vehicles and equipment. A complete program description can be found in the Safety and Security Certification Plan.

26.2. System Modifications

The City of Cincinnati ensures that safety concerns are addressed in modifications to the existing system by a formal process of notification to O&M Contractor. The O&M Contractor is responsible for coordinating changes to existing systems, including vehicles, trackway, signals, and switches. All changes are to be reflected in a modification log for each system or subsystem. Modifications or changes will be disseminated through various means and will follow the process laid out in Section 38.0 Management of Change Process.

26.3. Train Orders and Special Instructions

Operations personnel will be informed of changes or modifications through either Train Orders or Special Instructions. Permanent modifications or changes will be written into the Recertification program and be accepted as a normal condition of operation.

26.4. Memorandum

The O&M Contractor may elect to address modifications or changes to the System in memo form. The O&M Contractor will ensure that information posted has been read and understood by Operations personnel prior to operation through modified or changed systems.

26.5. Tracking

The O&M Contractor is delegated the responsibility of ensuring that any hazards associated with system modifications of any kind are worked into the Hazard Management Process. Any accepted risks associated with system changes will be tracked from the outset.

26.6. Procurement

26.6.1. Overview

Procurement of new systems such as facilities, equipment, cars, and non-revenue vehicles or the modification of existing systems include safety requirements in specifications, design reviews, testing, configuration control and periodic safety evaluations. These procurements include consultation with the Chief Safety Officer to ensure basic system safety principles.

26.6.2. Program Responsibility

The City of Cincinnati will appoint a Project Engineer for new rail contracts and is responsible for all matters relating to this contract, except changes to the contract involving scope, cost or time. Such changes shall be made with the approval of the Project Engineer. The Maintenance Manager is also responsible for coordinating the effort to assure that all specifications to new streetcar vehicles, equipment, and parts meet the technical specifications and provisions in the document “Vehicle Technical Specifications.”

26.6.3. Safety-Related Procurement Process and Procedures

For Rail the Maintenance Manager must approve modifications, or parts changes to any vehicle. The SSRC and Department of Transportation and Engineering office will review modifications to original specifications; however, the Maintenance Manager has the authority to approve the purchase of parts manufactured by a non-OEM supplier. The Maintenance Manager maintains a change and modification record.

26.6.4. New or Modified Systems Specifications

Basic safety and user requirements are included in procurement specifications and coordinated with appropriate departments. As new facility, system, or equipment specifications are proposed, responding contractors are required to resolve hazards in accordance with the established order of precedence:

- Design for Minimum Hazard. The major effort during the design phase of a contract shall be to select appropriate safety design features (e.g., fail-safe and redundancy).
- Safety Devices. Hazards, which cannot be eliminated through design, shall be reduced to an acceptable level using appropriate safety devices.
- Warning Devices. Where it is not possible to preclude the existence or occurrence of a hazard, devices shall be employed for the timely detection of the condition and the generation of an adequate warning signal.
- Special Procedure. Wherever it is not possible to reduce the magnitude of an existing or potential hazard through design, or the use of safety and warning devices, the development of special procedures to control the hazard shall be required.

Specification includes the requirement that contractors who provide systems, subsystems, or equipment that affect safe movement of vehicles or passenger/employee safety, establish and maintain a safety program in accordance with the approved safety program plan which defines objectives, tasks, procedures, schedules, and data submittals for the safety activities that will be performed by the contractor. The contractor's safety program plan and supporting documentation is approved by the designated management representative subject to review by the Chief Safety Officer.

26.6.5. New or Modified Systems Safety Design Reviews

Safety design reviews are an integral part of all acquisition processes for facilities, systems and equipment. Safety design reviews are conducted to assess the compliance of facility or equipment design with safety requirements in specifications and to ensure that the safety of existing equipment is not degraded by the addition of new facilities or equipment. Safety reviews are normally carried out as an integral part of engineering design reviews coordinated by the Department of Transportation and Engineering.

26.6.6. New or Modified Systems Acceptance Testing and Inspection

Acceptance testing and inspections are included in procedures that assess compliance with the safety requirements of the procurement specification. The project manager verifies and certifies to the Chief Safety Officer that the modified system and facility documents follow the specified safety requirements for the issuance of the Final Certification Report.

26.7. Minimizing Infectious Disease Exposure

The Cincinnati Streetcar has adopted strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions, including infectious diseases. The Cincinnati Streetcar has installed 2 hand sanitizing stations on each streetcar and can dispense face masks to passengers if

recommended by the Centers for Disease Control or the local Health Department. Operators can also stop at every station and open the doors to allow fresh air inside the streetcar.

27. Safety Risk Assessment

To assess risk, Cincinnati Streetcar has adopted Military Standard 882-E. A comparative risk assessment process is utilized which is based on the principles, descriptions and definitions of MIL-STD-882E, but enhances the risk assessment and prioritization to include the cost of corrective action. The process codifies the hazard severity, hazard probability of occurrence, and the cost of eliminating or controlling the hazard and rates each element using established hazard rating tables. The process then determines which hazards are unacceptable or undesirable based on their severity and probability of occurrence. The hazard severity, probability and cost combination for unacceptable and undesirable risk is then ranked on a Hazard Priority Rating Table whereby Cincinnati Streetcar Management can prioritize and allocate the resources available to eliminate or correct the unacceptable and undesirable hazards. For information about the safety risk assessment process see the Cincinnati Streetcar Hazard Management Plan.

28. Safety Risk Mitigation

To reduce the likelihood and severity of consequences related to hazards Cincinnati Streetcar will employ the following risk mitigation strategies as appropriate: hazard elimination, reduction of risk through alteration, incorporation of engineered features or devices, provision of warning devices or the incorporation of signage, procedures, training and personal protective equipment. Safety risk mitigation for infectious diseases includes, but is not limited to social distancing, face mask requirements, opening all the doors at station stops. Safety risk mitigation may include more than one measure to achieve the most acceptable result. Any employed risk mitigation measure will be monitored for its effectiveness. This will be accomplished through regular review of performance measures and event reports to determine recurrence and (or) trends.

28.1 Safety Risk Reduction Program Measures

The Safety Risk Reduction Program will monitor 8 Safety Performance Measures and Targets and attempt to reduce the number and rates of safety events, injuries, and assaults on transit workers.

The measures that will be monitored are:

- Major Events and Major Event Rates (divided by VRM), including all major events as defined by the NTD
- Collisions and Collision Rates (divided by VRM) including all collisions reported to the NTD
- Injuries and Injury Rates (divided by VRM) including all injuries defined by the NTD
- Assaults on Transit Workers and Rate of Assaults on Transit Workers including all assaults on transit workers as defined by the NTD including mitigations consistent with § 673.25(d)(4)

- When the Safety Committee, as part of the transit agency's safety risk reduction program, identifies and recommends under § 673.19(c)(6) safety risk mitigations, including mitigations relating to vehicular and pedestrian safety events involving transit vehicles or assaults on transit workers, based on a safety risk assessment conducted under § 673.25(c), the Cincinnati Streetcar will include or incorporate by reference these safety risk mitigations in its ASP pursuant to § 673.11(a)(7)(iv).
- When identifying safety risk mitigations for the safety risk reduction program related to assaults on transit workers, including to address a missed safety performance target set by the Safety Committee under § 673.19(d)(2), the Cincinnati streetcar and its Safety Committee must consider deployment of assault mitigation infrastructure and technology on transit vehicles and in transit facilities. Assault mitigation infrastructure and technology includes barriers to restrict the unwanted entry of individuals and objects into the workstations.

29. Safety Assurance

Safety Assurance, in SMS, gives Cincinnati Streetcar the ability to know if and how well our mitigations are working by providing key information for data-driven informed decision making, by the collection and analysis of safety performance data, and the provision of timely safety performance information. Finally, it provides safety performance verification and validates the effectiveness of our safety risk mitigation activities. At Cincinnati Streetcar, this is accomplished through safety performance monitoring and measurement as discussed in Section 30.

30. Safety Performance Monitoring and Measurement

Safety Performance Measurement is a subcomponent of SMS and there are three things that it accomplishes. First of all it provides critical indicators to Executive Management and any oversight authority. Secondly, it provides assurance that Cincinnati Streetcar is meeting its safety objectives. Thirdly, it provides assurance that SMS and safety risk controls are working as anticipated and if not a process is in place to continually improve. Cincinnati Streetcar monitors safety performance through the following activities: the Employee Safety Reporting Program, Service Delivery Activities and Operational and Maintenance Data. It also conducts safety surveys, safety audits and inspections, and safety investigations.

30.1. Safety Data Acquisition

30.1.1. Roles and Responsibilities

The O&M Contractor has the responsibility to monitor the safety performance of operations. Safety data is collected and analyzed to determine if safety performance meets established safety goals. This data includes injuries to passengers, O&M Contractor personnel, public; potentially hazardous equipment failures; unacceptable hazardous conditions, and rules and procedure violations. A closed-loop reporting system for identifying and monitoring safety-related items has been established. To close out each incident, safety verification activities and results are reviewed and audited by the Chief Safety Officer or their designee.

30.1.2. Data Acquisition process

The O&M Contractor is responsible for information regarding accidents, incidents, hazardous conditions and operations obtained from several different reporting mechanisms. These include but are not limited to: email and (or) text messages from the City, accident/incident reports, daily operations reports, and employee occupational injury reports. Employees are also encouraged to bring any safety-related issues to the attention of managers and supervisors.

30.1.3. Data Analysis

Tracking of hazard related data is used to identify trends. These trends are further analyzed and/or investigated to determine causal factors. This is accomplished by interviews with personnel in the affected department(s) and analysis of pertinent documentation. Identified hazards are submitted with corrective action recommendations or request for corrective action development.

30.1.4. Reports

Safety performance trend and analysis reports are provided to the SSRC for review and discussion. SSRC will receive safety trend, and analysis reports relative to the area of interest. The reports are the basis for determining achievement of the ASP safety goals and objectives and formulation of safety performance goals/objectives for the coming year. The safety trend and analysis reports are also the basis for the annual safety performance report to ODOT. The annual report includes collision data, passenger and employee injury data, injury data affecting the public, program audit findings and trends, and corrective action plans (CAP). The annual report also describes the strategies for achievement of the stated safety and security objectives.

30.1.5. Accident and Incident Notification, Accident and Incident Investigation Plan and Reporting Procedures

For Accident and Incident Notification, Accident and Investigation Plans and Reporting Procedures see the Cincinnati Streetcar Accident Investigation Procedure.

31. Corrective Action Plans

CAPs can be the result of safety events (e.g. accidents, near-miss incidents, auditing (internal or otherwise) and potentially National Transit Safety Board investigations. CAPs document the action taken and contain the following information: identification of the hazard, deficiency, or root causes, action(s) being taken to resolve or mitigate the hazard or deficiency, implementation schedule for the CAP, the individual or department responsible for implementing the corrective action(s) and any other critical information deemed necessary by Cincinnati Streetcar or ODOT. CAPs must be approved by ODOT and tracked through resolution. CAPs will be handled on a case-by-case basis by the City and the O&M contractor at the Safety and Security Review Committee (SSRC) with system safety being the top priority. After approval, a CAP closure form including all relevant information. Will be submitted to the SSOA and tracked in the CAP log. Any emergency action will be added to the Hazard Log and

followed up with one or more CAPs to be reviewed by ODOT and the SSRC. For additional information, please refer to the Cincinnati Streetcar CAP Development, Tracking and Closeout Procedure Review and Approval Plan.

32. Emergency Management Program

32.1. Emergency Planning Responsibilities and Requirements

Annually, the Chief Safety Officer, or designee, will coordinate, conduct or participate in safety/security related drills and exercises with the City of Cincinnati, Hamilton County EMA, Department of Homeland Security, and other agencies, such as Cincinnati Fire and Cincinnati Police. The purpose of participation is to ensure that all potential emergency responders are familiar with equipment and property. Participation may include hands-on training, demonstrations, video demonstrations, hand-outs, or any other media. Minimally, emergency responder training will include basics of streetcar vehicle and system electrification, familiarization with Streetcar operations and routing, and emergency entry methods into Streetcar vehicles.

32.2. Emergency Procedures and Plans

Cincinnati Streetcar has implemented several emergency response plans and procedures in support of Emergency Management including an EOP and a Continuity of Operations Plan (COOP). The purpose of the EOP is to ensure that in any event requiring emergency management there is effective coordination of response and restoration of normal operations between Cincinnati Streetcar personnel, First Responders and other responding organizations. The purpose of the COOP is to ensure that during and after an event the City and Cincinnati Streetcar personnel have a coordinated plan to safely continue operations.

Please see the EOP and COOP for additional information.

32.3. Required Meetings

The Chief Safety Officer is responsible to annually establish on-going meetings with local emergency responders. These meetings will include, but are not limited to: a review of emergency management plans, preparation for drills and coordination of familiarization or refresher training with first responders.

32.4. Emergency Exercises and Evaluation

A program for effective joint training exercises and drills involving and other external agencies including local police, fire, and emergency management agencies is maintained by the system the Chief Safety Officer. The Chief Safety Officer uses the Homeland Security Exercise and Evaluation Program (HSEEP). This program includes the creation and use of tabletop exercises (TTX) and Full-Scale Exercises (FSE). This program is followed annually and prior to opening new lines or as required.

TTX involve presenting various emergency scenarios to teams of participants with the purpose of allowing the teams to discuss the appropriate response actions. TTX are conducted to

prepare Cincinnati Streetcar, law enforcement, and emergency response personnel to respond to emergencies involving transit passengers and equipment. FSE differs from TTX in that they involve utilizing actual equipment, facilities, and personnel together to form a full-scale mock emergency.

The purpose of these exercises is to demonstrate that participants understand their individual roles and responsibilities and are familiar with the equipment and layout of facilities. Drills involve local law enforcement and emergency response personnel and are indicative of the types of emergencies typical of transit operations and services. Alternating exercises for natural and human caused scenarios is critical for satisfying federal requirements. Cincinnati Streetcar has adopted an after-action review (AAR) with a lessons learned sharing system (LLS). The key element of the LLS is where an assigned person tracks the results of the AAR and incorporates the recommendations into policy, procedure, SOP, training or mitigation.

The O&M Contractor will implement new findings from TTX and FSE and will ensure that appropriate and timely employee training occurs, as necessary. Furthermore, to ensure that personnel are trained to perform satisfactorily during emergency conditions, annual recertification will incorporate discussion and refresher training regarding procedures, practices, actions, and responsibilities during emergency situations.

32.5. Employee Training

An important aspect of every employee's job is his or her individual responsibility for safety and security. As a result, the O&M contractor develops, maintains, and updates the security-related training curriculum for all employees. Targeted security training incorporates such security and emergency management concepts as terrorism awareness, continuity of operations and the National Incident Management System (NIMS). Security-awareness training is required for all personnel and is considered an essential and proactive element of the security program. De-escalation training for operations and maintenance employees is also a required and essential part of the safety training conducted by the O&M contractor. This program is administered by the O&M contractor, the operator of Cincinnati Streetcar. It is designed to reinforce security roles and responsibilities for all employees by doing the following:

- Preparing employees for the requirements of their jobs with appropriate security training. Train employees on de-escalation methods and tactics.
- Increasing the level of security awareness throughout the organization.
- Reinforcing any applicable security policies and procedures, including standard operating procedures (SOPs).
- Providing each employee with an opportunity to take part in the security program by asking questions and voicing any concerns.
- Increasing employee understanding pertaining to the potential threats and vulnerabilities within the system and what measures can be taken to eliminate, control, mitigate, and prepare for those threats and vulnerabilities.

32.6. First Responder Familiarization Training

The Cincinnati Fire Department has hands-on familiarization for fire companies working in or will be responding to emergencies on the alignment, which has been and will continue be provided on an as-needed basis coordinated by the Chief Safety Officer or Designee.

33. Internal Safety Audit Program

The purpose of internal system safety audits is to inform management if programs and activities are meeting planned and published requirements. Audits are authorized by management to verify compliance with requirements and policy. Elements of the ASP will be reviewed over a three-year period. ODOT will be notified and presented with the review checklist thirty days prior to each review. The annual report must be submitted to ODOT each year. The Chief Safety Officer must certify compliance of the ASP each year or define the areas of non-compliance with an appropriate CAP. The Accountable Executive will review, evaluate, and sign off on the results of any internal safety review. An approved designee conducts internal system safety reviews. The Chief Safety Officer is responsible for the direction of the audits. For more information see the Cincinnati Streetcar Internal Audit Plan.

34. Rules Compliance

34.1. General

All Cincinnati Streetcar personnel are responsible for the prevention of accidents, identification of hazards, and resolution of such hazards. Reports of all accidents, incidents, deficiencies, and defects will be maintained by the Manager of the appropriate department.

34.2. Review

34.2.1. Directives, Rules, and Standard Operating Procedures

The Streetcar Operators Rule Book, SOPs, Communications Center Procedures, Emergency Operating Procedures, Bulletins and Operating Orders all govern operations procedures during normal and abnormal conditions and are considered safety-critical documents. Additionally, the Maintenance SOPs govern maintenance practices (Inspection and Maintenance Manual). All of these documents are subject to configuration management and formal document control procedures.

34.3. Rule Book

The Streetcar Operators Rule Book is reviewed and analyzed annually, to ensure it provides for the safe operation of the system in normal, abnormal (e.g. brake failure, bypassed door) and emergency conditions, and to ensure compliance with appropriate governing bodies. Revisions to the Rule Book are done by the Cincinnati Streetcar General Manager, or designees annually, through the SSRC and submission to ODOT before implementation. All Streetcar Operators Rule Book revisions are tracked via a revision page that is updated following revisions. All are signed for by every operator and must be carried with them when operating streetcars. The Streetcar Operations Manager will keep a log for rules compliance and update the committee annually.

34.4. Process for Ensuring Rules Compliance

The Rail Operational Safety Checks Program serves as the foundation for observing, correcting, and documenting safety related behaviors and activities. It is also used to re-enforce positive safety behaviors. Operations Managers/Supervisors and Training Instructors are responsible for conducting periodic field and on-board operations safety checks. Supervisors and Training Instructors travel along the right-of-way and/or board streetcars to observe and evaluate adherence to rules, policies and procedures, verbal, or written instructions such as Train Operating Orders, and speed limit compliance. Operator safety checks are recorded on the "Supervisor Rail Safety Ride Check" and "Supervisor/Check forms." Operations Supervisors and Training Instructors are authorized to take appropriate and immediate actions if indicated by the situation. Each Streetcar Operator receives a monthly operations safety check.

The Cincinnati Streetcar General Manager organizes a program of unannounced safety inspections and field observations. All members of the senior management team participate in at least one such inspection every calendar month. These Safety Inspections and Field Observations fortify the safety processes, procedures and plans we have implemented for Streetcar Operators, Operations Control personnel, Wayside personnel, Streetcar Technicians, and Facilities Maintenance personnel. The Streetcar Operations Manager monitors rules compliance through the Rules Compliance Log. The streetcar Operations manager also uses SmartDrive to monitor and review Streetcar Operators and incidents along the alignment.

The results of Safety Checks will be reported to the Chief Safety Officer, or Designee, for incorporation into the Hazard Management Plan.

34.5. Systems Inspections

An essential element of the System Program is regular inspection of all system elements that can affect safe operation. Major elements in the system that directly affect safety are: vehicles, right-of-way, overhead power distribution, signal system, and streetcar stations and facilities. Preventive maintenance activities on wayside equipment and other safety critical equipment are performed in accordance with manufacturers' recommended practice and the APTA Manual of Standards and Recommended Practices for Transit Systems and are documented. Checklists are used in conducting inspections of facilities and equipment. See the Cincinnati Streetcar Maintenance Plan, Revision 5 for additional information including checklists utilized.

34.6. Coordination with Hazard Management Process

Deficiencies noted during inspections are logged into Cincinnati Streetcars asset management system and submitted for repair or corrective action to applicable managers. The Chief Safety Officer receives copies of all deficiency reports for tracking through the Hazard Management process. The adequacies of control measures for safety critical equipment and systems are evaluated to ensure the proper corrective actions are in place to control potentially hazardous conditions to passengers, employees, and the general public.

34.7. Resolution of Audit/Inspection Findings

Safety critical equipment that does not meet established requirements is removed from service and/or tagged or locked-out. Vehicles or equipment involved in accidents are inspected by qualified personnel prior to being placed back into service

34.8. Compliance with Local, State and Federal Safety Requirements

The City of Cincinnati is committed to the safety and health of its employees and contractors who work within the system. Additionally, the City of Cincinnati ensures a safe and healthy work environment through adherence to all applicable Federal standards, BWC standards and local codes. The O&M Contractor ensures that employees are aware of job related hazards through training, posters and notices located in affected areas. Employees will receive appropriate training when new materials, chemicals, or potentially hazardous materials are brought into their working environment.

The O&M Contractor, in coordination with the Chief Safety Officer, evaluates and creates solutions to ensure that employees are educated to potential hazards in their working environment. Procedures and practices employed to minimize exposure to workplace conditions that may jeopardize their safety and health are periodically reviewed and updated.

34.9. Working On or Near Transit Controlled Property

34.9.1. Contractor and Non-Transit Agency Personnel

All Contractors and Non-Transit Agency Personnel must have a Track Access Permit to perform work on or near the alignment. Furthermore, all Contractor and Non-Agency Personnel must complete a safety orientation as part of the permitting process

34.9.2. Employees

All employees who work on or near the rail alignment will receive safety training during New Hire Orientation or any time there is a change on the alignment.

34.10. Hazardous Materials Program

The goal of any Occupational, Safety and Health Program is to ensure a safe work environment free from recognized hazards. To that, the Hazardous Materials Program places emphasis on recognition, evaluation, and control of material hazards arising in and from the occupational environment. Several tools are employed which include, but are not limited to: industrial hygiene surveys, JHA, chemical inventories and employee training. There is one SOP that that governs the Hazardous Materials Program: Cincinnati Streetcar Hazard Communication Program.

34.11. Responsibility

34.11.1. Chief Safety Officer

The Chief Safety Officer is responsible for maintaining and communicating the expectations within this procedure and ensuring the program is adequate. At least annually, the Chief Safety Officer or designee will conduct an audit of the HCP and update the program as necessary.

34.12. O&M Contractor

The O&M Contractor is responsible for ensuring that personnel and sub-contractors comply with all Safety and Environmental programs.

34.13. Hazardous Materials Process

A chemical inventory is conducted annually. The results of this inventory are documented in the Chemical Inventory List (CIL). During this task chemicals are identified and evaluated based upon their Safety Data Sheet. Other tools may be used to identify hazardous materials such as industrial hygiene surveys and JHA.

34.14. Drug and Alcohol Program

34.14.1. Overview

All drug and alcohol testing for employees classified as "safety sensitive" is covered by the Drug and Alcohol policy. All drug and alcohol testing for Cincinnati Streetcar employees classified as "safety sensitive" is covered by the O&M Contractor Drug and Alcohol program.

34.14.2. Decision Tree

The Drug Testing Decision Tree is used by supervisory personnel to make drug-testing determinations following all accidents involving employees. The completed form will be forwarded to the Drug and Alcohol Test Program Administrator.

34.14.3. Compliance

FTA drug testing regulations require that all supervisors must undergo a minimum of sixty minutes of training on the signs and symptoms of drug use before they are qualified to make reasonable suspicion determination. A similar provision in the FTA alcohol testing regulation requires supervisors to undergo an additional sixty minutes of training on the signs and symptoms of alcohol use. The Drug and Alcohol Program Manager will ensure supervisory staff meet these minimum qualifications and will provide or arrange for refresher training when requested.

34.14.4. Program Responsibility

The O&M Contractor has primary responsibility for administering the Drug and Alcohol Program.

34.14.5. Drug and Alcohol Abuse Program

For Cincinnati Streetcar, the O&M Contractor has primary responsibility for administering the Substance Abuse Testing Program in accordance with 49 CFR Part 40: Procedures for Transportation Workplace Drug and Alcohol Testing Programs and 49 CFR Part 655: Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations.

35. Operational and Maintenance Procedure Compliance Monitoring

The Streetcar Operator Rule book, SOPs, Operations Control Procedures, Emergency Operating Procedures, and Bulletins all govern operations procedures during normal and abnormal

conditions and are considered safety-critical documents. Additionally, the Maintenance SOPs govern maintenance practices (Inspection and Maintenance Manual). All these documents are subject to configuration management and formal document control procedures. Operations Supervisors conduct audits to ensure compliance of rules and procedures. This is accomplished through service audits. Safety performance issues are documented and tracked to determine if remedial action is required. The Streetcar Operations Manager will keep a log for rules compliance and update the committee annually.

The Maintenance Department is responsible for inspections of the facilities, equipment, and infrastructure. These safety inspections include life safety (alarm, fire doors and carbon monoxide monitoring), suppression systems and equipment lifts (portable and fixed). Streetcars are maintained at a minimum in accordance with manufacturer recommendations or at a higher level. Most of the preventative maintenance intervals are time driven based. Maintenance is tracked and coordinated through time schedules, which are maintained by the maintenance personnel using Maintenance Information Systems software. All maintenance is scheduled through work orders and completed within a twenty-percent requirement of the schedule maintenance activity. The Maintenance Department maintains a Quality Assurance Program to ensure audits and inspections are conducted. See the Cincinnati Streetcar Management Plan.

36. Risk Mitigation Monitoring

The purpose of Risk Mitigation monitoring is to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended. At Cincinnati Streetcar this is accomplished though safety performance monitoring.

37. Safety Event Investigation

Safety Events are investigated in the context in which they occur. Collision events are investigated by qualified investigators. For more information see the Cincinnati Streetcar Accident and Incident Investigation Procedure.

38. Management of Change

Change management is activities through which Cincinnati Streetcar ensures that any changes or proposed changes don't introduce new hazards, and if changes have introduced new hazards, measures to mitigate their potential consequences are instituted.

The process for identifying and assessing changes is contained in the Cincinnati Streetcar Configuration Management Plan. The purpose of configuration management plan is to ensure that changes to safety-critical systems and subsystems are reviewed prior to implementation. This assures there are a set of practices and procedures of identifying all components and their relationship in a dynamic and continually evolving system for the purpose of maintaining integrity, traceability and control over change throughout the cradle to grave lifecycle of the component. These practices will ensure that appropriate personnel have been provided accurate reference documentation for maintaining components and any modifications to

components are properly and systematically documented. A change in configuration refers to a modification that may result in a change to physical and/or operational features of any asset.

For additional information, see the Cincinnati Streetcar Configuration Management Change Procedure.

39. Continuous Improvement

Continuous improvement is a process in which Cincinnati Streetcar works towards revising current processes in response to changing needs, operational environment, or standards. In the case of safety, this is accomplished through monitoring and evaluation of SMS performance to ensure we meet our safety performance targets. This is accomplished through internal/external audits and self-assessments.

40. Safety Promotion

Safety Promotion improves safety performance by increasing awareness through communication and training. It also displays continuous management commitment to communication. In fact, one of management's most important responsibilities of management is to encourage and motivate others to want to communicate openly, authentically, and without concern of reprisal. Training also documents executive management responsibilities to allocate resources to training and maintain the relationship between safety training and SRM and safety assurance.

41. Training and Certification Program

Safety training is conducted on equipment. Operating Rules and SOPs will be prepared by the O&M Contractor and provided to all operating personnel. The O&M Contractor oversees the formulation of training programs and records, SOPs, and Rules and maintains all records, which are kept at the streetcar office. The O&M contractor's training plan is maintained in an Operations and Maintenance plan for frontline employees. The City of Cincinnati commits to continuous training for the Streetcar Director, Chief Safety Officer and Transit Coordinator.

41.1. City of Cincinnati

The Streetcar Director, Chief Safety Officer and Transit Coordinator will attend TSA sponsored classes provided by the U.S. Department of Transportation's Transportation Safety Institute (TSI). The PTSCTP requires that the 4 classes be completed over a 3-year period. When completed, this training results in a certificate for the Transit Safety and Security Program (Transit Rail Program).

41.2. Rail Vehicle Operators

All Streetcar Operators will be required to successfully complete the streetcar operations training program prepared by the O&M Contractor and approved by the SSRC, ODOT, and the City of Cincinnati. The O&M Contractor's training plan is contained within the Operations and Maintenance Plan. The O&M Contractor also has a fully developed Streetcar Operator Training plan with a recently updated Training syllabus.

All new Streetcar Operators are given the Streetcar Operator Training Course. This course covers SOPs and Operator Rules that govern the Streetcar alignment and operation. Operators are issued manuals for safe operation and troubleshooting of Streetcar vehicles.

New Streetcar Operators are also evaluated by established Operators using an Observation Report Form. New Operators must meet criteria satisfactorily or will receive additional training. O&M Contractor, on a separate occasion prior to certification, will determine whether the Operator demonstrates safe control of the Streetcar or needs additional training. Each Operator is certified with both written and practical testing to validate operational readiness.

41.2.1. Extensions and Major Modifications

Updated training materials will be developed under coordination by the General Manager, Operations and Safety Manager, Maintenance Manager, and Streetcar Supervisors prior to the opening of any new rail extension or major modification to the existing Streetcar line. Operations personnel will be certified by written and practical testing.

41.2.2. Rail Vehicle Operator Compliance

Streetcar Operators are subject to periodic in-service evaluations by Streetcar Supervisors who monitor their compliance to rules and procedures outlined in the Rule Book and SOP manual. The Supervisor completes an Observation Report Form after completion of the in-service evaluation and will review the information in the report with the Operator. Operators observed violating any rule or procedure are subject to progressive discipline. The O&M Contractor will maintain a Rule Violation Log that chronicles violations each month and administers all disciplinary actions, retraining, re-instructions, and determines the consequence to rule violations.

41.3. Maintenance

Maintenance requirements, methods and procedures of equipment and systems are described in manuals, handbooks, and other documentation developed for the training and certification of maintenance personnel. Use of personal protective equipment (PPE), emergency equipment, and safety instruction are included within the training program.

Maintenance personnel who are required to operate Streetcars, hi-rail equipment, heavy equipment, or other specialized vehicles/equipment/apparatus are certified by both written and practical testing in order to document the employee's knowledge of safety and operating procedures and skill in the proper and safe operation and procedures.

41.4. Refresher Training

41.4.1. Rail Vehicle Operators

Annually, each Operator is given a refresher course on the rules and procedures and will re-certify with written and practical testing. The re-certification may consist of one or more of the following: a quiz, a checklist, a test, and a demonstration of troubleshooting techniques. Any person who fails the annual examination is given special retraining

41.4.2. Maintenance Personnel

Annually, each employee will re-certify in the proper and safe use of the equipment/vehicles with written and practical testing. Each person who fails the annual examination is given special retraining.

41.5. Contractor Training

Construction safety and project management is privately contracted in accordance with City of Cincinnati procedures. Contractors must first seek approval, in writing, to perform work on or near property and infrastructure.

Contractors will contact the City to apply for a Track Access Permit for rail-related projects. The request is forwarded to the O&M Contractor for review. Contractor requests must be submitted, at a minimum, one week in advance of scheduled work. Once approved, the O&M Operations Manager will provide a Track Access Permit to the requesting party. The Access Permit details the work to be performed, the time the work will be performed, and contact information for the on-site contractor Supervisor. The City of Cincinnati will receive a copy of the access permit.

The O&M Contractor must ensure that the requesting party abides by the safety requirements established by Cincinnati Streetcar. Requirements include, but are not limited to: reflective safety vests, proper hand signaling to Streetcar Operators, and understanding of inherent dangers of the live and hot overhead contact system.

Contractors are required to attend safety certification classes prior to approval and issuance of a Track Access Permit; this requirement depends on the work request. The O&M Contractor will make arrangements for contractors to attend such classes and receive certification prior to the approval and issuance of an Access permit, when necessary.

42. Recordkeeping

Per 49 CFR Part 673.31 Cincinnati Streetcar must maintain the documents utilized to create the ASP, including those related to the implementation of the SMS, and results from SMS processes and activities. Cincinnati Streetcar must also maintain documents (e.g. procedures, plans) that are included in whole, or by reference, that describe the programs, policies, and procedures that are used to carry out the ASP. These documents will be made available upon request by the FTA or other Federal entity, or the ODOT SSO. All these documents require a minimum retention of three years after creation.

43. Risk Based Inspections by ODOT

Pursuant to the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (49 U.S.C. § 5329), the Cincinnati Streetcar adds the following citations to the Agency Safety Plan to facilitate and comply with Special Directive No. 22-41, Required Actions to Implement a Risk-Based Inspection Program at the Ohio Department of

Transportation, the ODOT SSO Program Standard Section 1.8, and Reference Guide Section 5.6.

Risk-Based Inspections – A risk-based inspection program uses qualitative and quantitative data analysis to inform ongoing inspection activities. Risk-based inspection programs are designed to prioritize inspections to address safety concerns and hazards associated with the highest levels of safety risk.

Inspection Access – The Cincinnati Streetcar provides ODOT with the authority and capability to enter the rail facilities that ODOT oversees to inspect infrastructure, equipment, records, personnel, and data, including the data that the Cincinnati Streetcar collects when identifying and evaluating safety risks.

Inspection Access Policies and Procedures – ODOT, in consultation with Cincinnati Streetcar, has established policies and procedures regarding the access for ODOT to conduct inspections of Cincinnati Streetcar, including access for inspections that occur without advance notice to Cincinnati Streetcar.

Data Collection – The Cincinnati Streetcar provides ODOT with the data that the Cincinnati Streetcar collects when identifying and evaluating safety risks, such as:

- Safety program data
    - Records of safety events
    - Hazard records
    - Safety risk mitigation records
    - Corrective actions plans
    - Records of near misses
- Maintenance data
    - Inspection and maintenance records and report forms
    - Work orders
    - Records of failures and defects
    - Records of revenue vehicles out of service, including causal information
    - Major maintenance activity schedule and progress
    - Adherence to maintenance schedules, including reports and documentation of deferred maintenance
- Inspection data
    - Inspection records and report forms
    - Records of failure and defects
    - Records of speed restrictions
    - Event and safety risk mitigation verification
    - Adherence to inspection schedules including reports and documentation of inspections not performed
    - Capital project schedules and progress

Data Collection Policies and Procedures – ODOT, coordinating with the Cincinnati Streetcar, has established policies and procedures for collecting data described in the Data Collection requirements, including with respect to frequency of collection, that is commensurate

with the size and complexity of the Cincinnati Streetcar, see the ODOT/Cincinnati Streetcar Data Products List/Table.

Incorporation of These Requirements – Policies and procedures established by ODOT for Risk-Based inspections remain incorporated into the Cincinnati Streetcar Agency Safety Plan.

44. References

49 CFR 673 – Final Rule
Cincinnati Streetcar Safety and Security Review Committee procedure
Cincinnati Streetcar Configuration Management Change Procedure
Cincinnati Streetcar Hazard Management Plan
Cincinnati Streetcar Internal Audit Plan
Cincinnati Streetcar Accident and Incident Investigation Procedure
Cincinnati Streetcar Corrective Action Plan (CAP) Development, Tracking and Closeout Procedure Review and Approval Plan
Cincinnati Streetcar Maintenance Plan

Appendix A
Definitions of Special Terms Used in the Safety Plan

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 ASP 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 ASP, 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.

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 this part, or a public transportation provider that does not operate a rail fixed guideway public transportation system.

Consequence means a potential outcome of a safety hazard.

Equivalent Authority means an entity that carries out duties similar to that of a Board of Directors, for a recipient or sub recipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or sub recipient's Public Transportation ASP.

Event means any Accident, Incident, or Occurrence.

FTA means the Federal Transit Administration, an 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 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.

Public Transportation Agency Safety Plan means the documented comprehensive ASP for a transit agency that is required by 49 U.S.C. 5329 and this part.

Rail Fixed Guideway Public Transportation System means any fixed guideway system that uses rail, is operated for public transportation, is within the jurisdiction of a State, and is not subject to the jurisdiction of the Federal Railroad Administration, or any such system in engineering or construction. Rail fixed guideway public transportation systems include but are not limited to rapid rail, heavy rail, light rail, monorail, trolley, inclined plane, funicular, and automated guideway.

Rail Transit Agency means any entity that provides services on a rail fixed guideway public transportation system.

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 SMS 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 Deficiency *means a condition that is a source of hazards and/or allows perpetuation of the hazards in time.*

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 the 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 means a process within a transit agency's Public Transportation ASP 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 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.

Small Public Transportation Provider means a recipient or sub recipient of Federal financial assistance under 49 U.S.C. 5307 that has one hundred (100) or fewer vehicles in peak revenue service and does not operate a rail fixed guideway public transportation system.

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.

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 a State 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.

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.

List of Acronyms Used in the Safety Plan

AAR – After Action Review
APTA – American Public Transit Association
ASP – Agency Safety Plan
CAP – Corrective Action Plan
EOP – Emergency Operations Plan
FSE – Full Scale Exercises
FTA – Federal Transit Administration
HSEEP – Homeland Security Exercise and Evaluation Program
JHA – Job Hazard Analysis
LLS – Lessons Learned Sharing System
MOF – Maintenance Operations Facility
MPO – Metropolitan Planning Organization
NIMS – National Incident Management System
O&M – Operations & Management
ODOT – Ohio Department of Transportation
OKI – Ohio Kentucky Indiana council of governments
PPE – Personal Protective Equipment
PTSCTP – Public Transportation Safety Certification Training Program
SEPP – Security and Emergency Preparedness Plan
SMS – Safety Management Systems
SOP – Standard Operating Procedures
SRM – Safety Risk Management
SSO – State Safety Oversight
SSOA – State Safety Oversight Agency
SSPP – System Safety Program Plan
SSRC – Safety and Security Review Committee
TSI – Transportation Safety Institute
TTX – Tabletop Exercises

City Council Resolution/Ordinance

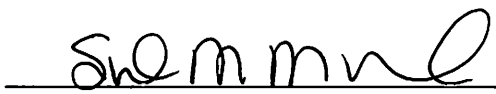
Reserved for formal resolution

Cincinnati Streetcar Safety Management Policy Statement

Cincinnati Streetcar recognizes that the management of safety is a core value of our business. The management team at Cincinnati Streetcar will embrace the Safety Management System (SMS) and is committed to developing, implementing, maintaining, and constantly improving processes to ensure the safety of our employees, customers, and the public. All levels of management and frontline employees are committed to safety and understand that safety is the primary responsibility of all employees. Cincinnati Streetcar is committed to:

- Communicating the purpose and benefits of the SMS to all managers, supervisors, and employees. This communication will specifically define the duties and responsibilities of each employee throughout the organization and all employees will receive appropriate information and SMS training.
- Providing appropriate management involvement and the necessary resources to establish an effective reporting system that will encourage employees to communicate and report any unsafe work conditions, hazards, or at-risk behavior to the management team.
- Identifying hazardous and unsafe work conditions and analyzing data from the employee reporting system. After thoroughly analyzing the provided data, the transit operations division will develop processes and procedures to mitigate safety risk to an acceptable level.
- Ensuring that no action will be taken against employees who disclose safety concerns through the reporting system, unless disclosure indicates an illegal act, gross negligence, or deliberate or willful disregard of regulations or procedures.
- Establishing safety performance targets that are realistic, measurable, and data driven.
- Continually improving our safety performance through management processes that ensure appropriate safety management action is taken and is effective.

Signature by the Accountable Executive



Date 2/6/25

Signature by the Chief Safety Officer_____ Date 12/30/2024