

Oklahoma Department of Transportation  
State Safety Oversight Program

# 2018 ANNUAL REPORT

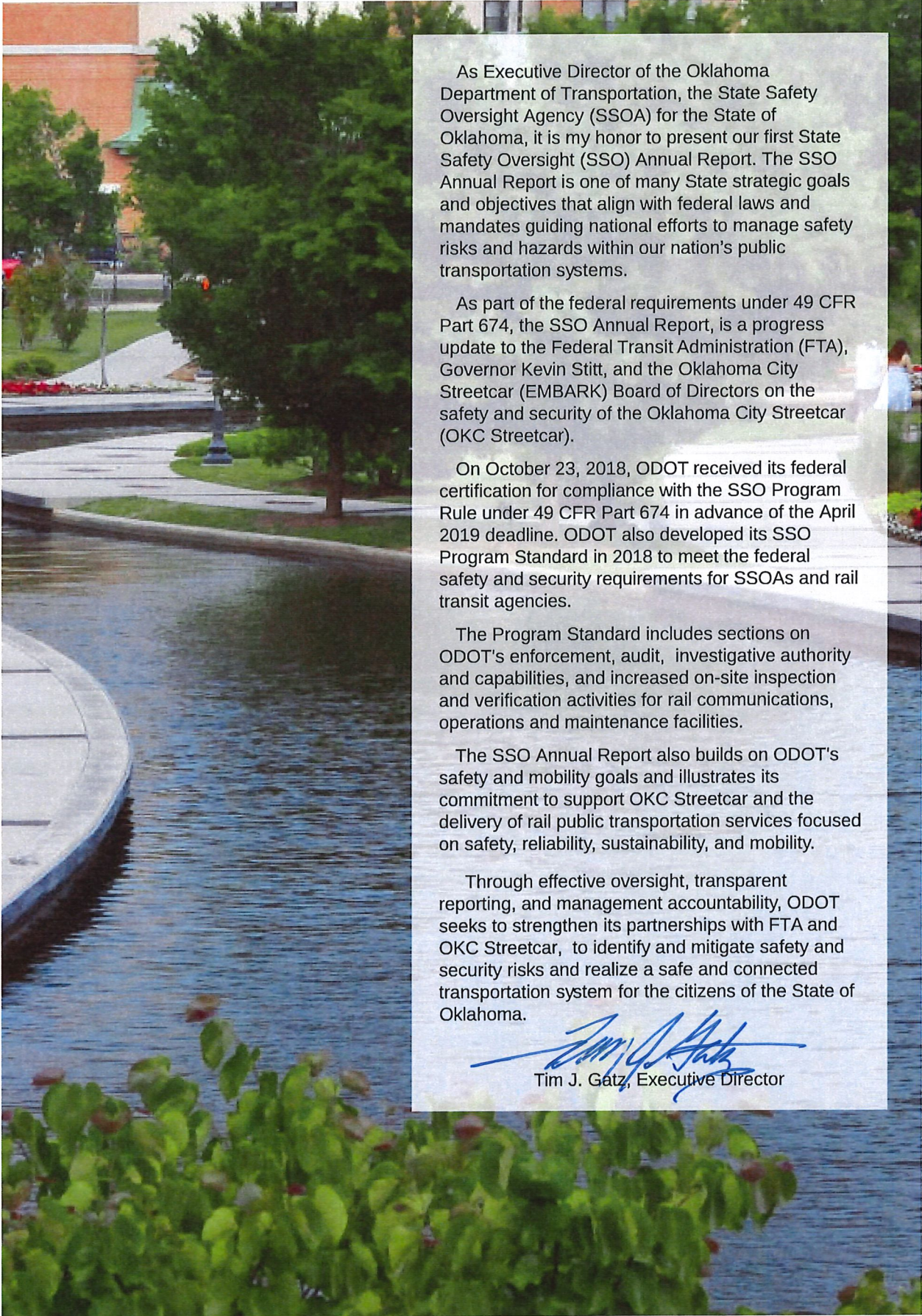




# TABLE OF CONTENTS

Message from the Executive Director	3
Program Management	4
Oklahoma City Streetcar	5
A New Age in Transportation Safety	7
System Safety Program Plan	10
Security and Emergency Preparedness	12
Internal Audit Program	14
Hazard Management	15
Event Notification, Investigation, and Reporting	16
SSO Annual Audits and Inspections	17
FTA Reporting	18
Safety and Security Readiness Review	19
Technical Training Plan	20
Transit Asset Management Plan	21
Contact Us	22





As Executive Director of the Oklahoma Department of Transportation, the State Safety Oversight Agency (SSOA) for the State of Oklahoma, it is my honor to present our first State Safety Oversight (SSO) Annual Report. The SSO Annual Report is one of many State strategic goals and objectives that align with federal laws and mandates guiding national efforts to manage safety risks and hazards within our nation's public transportation systems.

As part of the federal requirements under 49 CFR Part 674, the SSO Annual Report, is a progress update to the Federal Transit Administration (FTA), Governor Kevin Stitt, and the Oklahoma City Streetcar (EMBARC) Board of Directors on the safety and security of the Oklahoma City Streetcar (OKC Streetcar).

On October 23, 2018, ODOT received its federal certification for compliance with the SSO Program Rule under 49 CFR Part 674 in advance of the April 2019 deadline. ODOT also developed its SSO Program Standard in 2018 to meet the federal safety and security requirements for SSOAs and rail transit agencies.

The Program Standard includes sections on ODOT's enforcement, audit, investigative authority and capabilities, and increased on-site inspection and verification activities for rail communications, operations and maintenance facilities.

The SSO Annual Report also builds on ODOT's safety and mobility goals and illustrates its commitment to support OKC Streetcar and the delivery of rail public transportation services focused on safety, reliability, sustainability, and mobility.

Through effective oversight, transparent reporting, and management accountability, ODOT seeks to strengthen its partnerships with FTA and OKC Streetcar, to identify and mitigate safety and security risks and realize a safe and connected transportation system for the citizens of the State of Oklahoma.



Tim J. Gatz, Executive Director





In October of 2018,  
 Oklahoma's State Safety  
 Oversight Program was  
 granted 49 CFR Part 674  
 Certification by the FTA

**PROGRAM MANAGEMENT**

The management of rail public transportation safety is a balanced hierarchy that extends from the federal government to each state with rail public transportation systems in engineering or operations.

**FEDERAL TRANSIT ADMINISTRATION**

Within this hierarchy, the role of the FTA is to provide on going oversight and monitoring of Oklahoma's SSO program and its compliance with the federal laws and rules for rail system safety.

The FTA must ensure that the SSO program is adequately promoting the safety purposes of Section 5329 and issues certification to the state.

In October of 2018, ODOT was granted 49 CFR Part 674 Certification by the FTA .

Oklahoma's certification demonstrated that the SSO

program has the necessary authorities, resources, and structure in place to oversee the safety of the rail transit systems in the State, namely OKC Streetcar.

The certification covered six categories:

1. SSO Agency Independence
2. General Program Requirements
3. Enforcement Authorities
4. Investigations and Audits
5. SSO Staffing, Training, and Qualification
6. Program Standard

With the issuance of a comprehensive set of new rail safety rules, the FTA is responsible for leading the implementation of an innovative, performance-based approach to improving safety for rail transit passengers and employees.

**STATE OF OKLAHOMA**

The primary responsibility of the State of Oklahoma is designating the most appropriate entity to oversee safety and security of rail fixed guideway public transportation systems that operate in its jurisdiction.

**OKLAHOMA DEPARTMENT OF TRANSPORTATION**

ODOT was granted the authority and responsibility as the State Safety Oversight Agency for Oklahoma by State Statute Title 69-4019, effective July 1, 2018.

As the State Safety Oversight Agency, ODOT is responsible for preparing a Program Standard. The Standard is a written document that describes ODOT's policies, objectives, responsibilities, and procedures to provide rail safety and security oversight across the state.



# OKLAHOMA CITY STREETCAR



Oklahoma City Streetcar (OKC Streetcar) is responsible for the effective implementation of a System Safety Program Plan and Security and Emergency Preparedness Plan. Together, these plans form a strategic framework for modern safety performance management.

The OKC Streetcar system consists of 4.8 miles of at-grade track, 7 streetcar vehicles, and 22 stops serviced by two loops (or operating routes).

The Downtown Loop goes through all 22 stations while the Bricktown Loop covers a smaller portion of the same loop with 9 stations.

Each of the stops consists of a sheltered, curb-level platform with kiosks displaying operating schedules and ticket vending machines although fares may be purchased on mobile phones as well.

The OKC Streetcar operates in accordance with street signals at each intersection to determine right-of-way. The system makes use of an automatic vehicle location system and going into 2019, the agency hopes to improve efficiency and reduce time between stops by upgrading the signal networking technology.

The system is powered by an overhead contact system and six traction power substations. The vehicles operate wirelessly for several hundred feet under existing bridges so each vehicle also has a lithium-ion battery onboard energy storage system.

The streetcars travel in lanes sharing space with motorists, pedestrians, and bicyclists and follow traffic signals, train signals, and other rules of the road. The streetcars operate at speeds of up to 30 miles per hour.

To enhance operational safety, there are three streetcar-only sections of the system, identified by white hatch pavement markings in the travel lane.

After over 10 years of planning and construction, rail installation, and streetcars running through test miles, the OKC Streetcar system opened for passenger operations on December 14, 2018.

## QUICK FACTS

- 2 routes
- 4.8 track miles
- 40% wireless operations
- 7 streetcars
- 22 stops
- 30 mph operating speed
- 1 maintenance facility

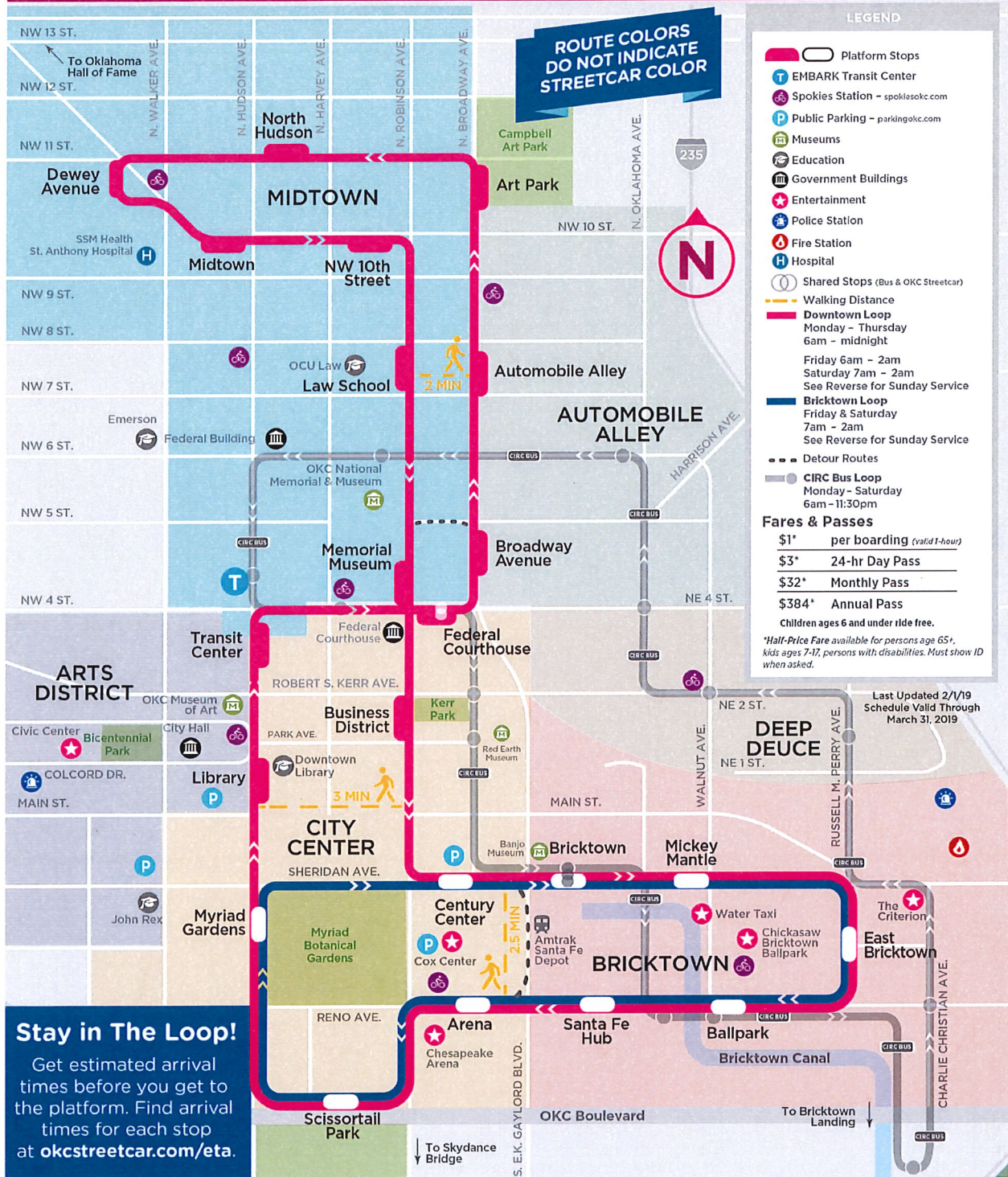


# OKLAHOMA CITY STREETCAR

An **EMBARC** Transit Service

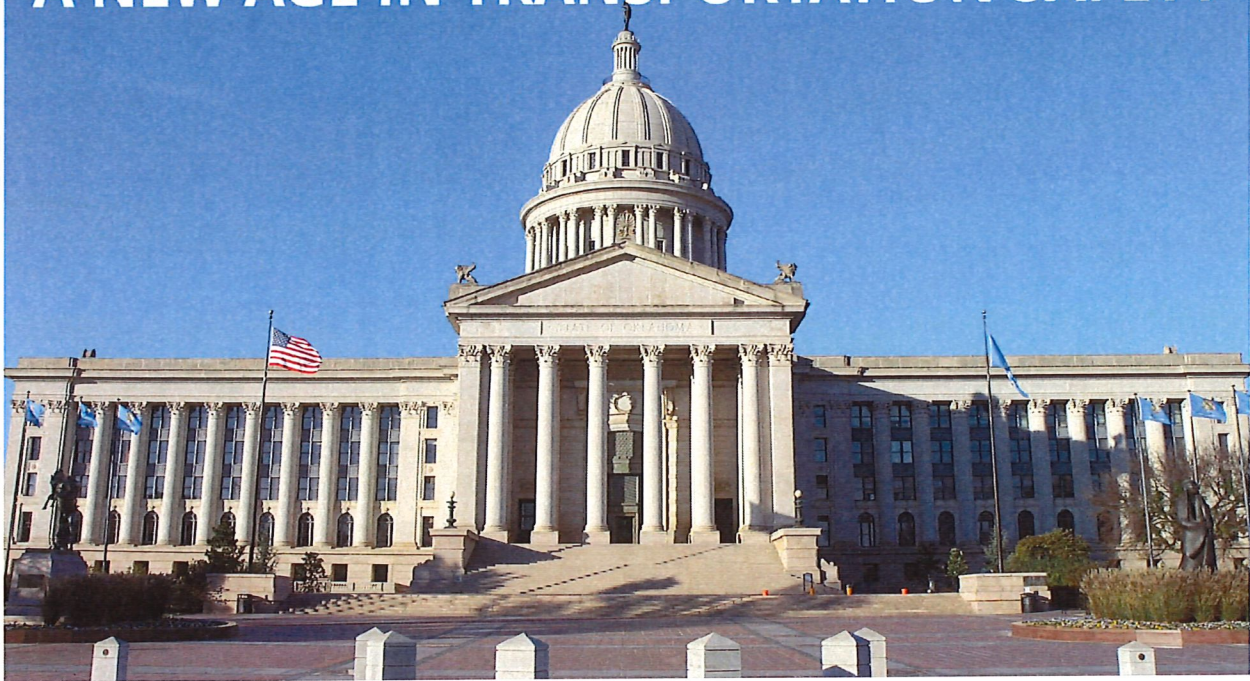
## Contact Information

(405) 235-RIDE (7433)  
 okcstreetcar.com  
 @okcstreetcar





# A NEW AGE IN TRANSPORTATION SAFETY



With the issuance of its final two safety rules in 2018, FTA completed the foundation of a National Public Transportation Safety Program. A total of six rules represent the regulatory framework within which ODOT will work to enhance public transit safety throughout the State of Oklahoma.

## **49 CFR PART 670**

The Public Transportation Safety Program must include a National Public Transportation Safety Plan to improve the safety of all public transportation systems that receive Federal transit funding.

The purpose of the National Public Transportation Safety Plan is to guide the national effort in managing the safety risks and safety hazards within our nation's public transportation systems. The National Safety Plan must include the following elements:

1. Safety performance criteria for all modes of

- public transportation,
2. The definition of the term "state of good repair,"
3. Minimum safety performance standards for public transportation vehicles used in revenue operations,
4. Minimum safety standards to ensure the safe operation of public transportation systems that are not related to vehicle performance standards, and
5. A safety certification training program.

The National Safety Plan is just one component of the Public Transportation Safety Program. Each component of the program will work together to ensure that appropriate and adequate risk surveillance, monitoring, and intervention methods and practices are utilized to minimize risks through the strategic application of available resources.

## **49 CFR PART 674**

The State Safety Oversight final rule significantly strengthened ODOT's authority as the State Safety Oversight Agency to investigate accidents and oversee OKC Streetcar's implementation of its safety, security, and emergency management plans and procedures.

The SSO rule gave FTA the authority to review and approve each State's oversight program and take enforcement actions against those States with non-existent or non-compliant safety oversight programs.

Every state that has a rail fixed guideway public transportation system, including Oklahoma, must have an oversight program that:

- Is financially and legally independent from any rail transit agency it oversees.
- Does not directly provide public



transportation services in an area with a rail transit agency that the SSOA oversees.

- Does not employ any individual responsible for administering a rail transit agency.
- Has authority to review, approve, oversee, and enforce a safety plan for a rail transit agency.
- Has investigative and enforcement authority with respect to the safety of a rail transit agency.
- At least once every three years, audits compliance with safety plan requirements for every rail transit agency in its jurisdiction.
- At least once a year, reports the status of the rail transit agency's safety program to the Governor, the FTA, and the rail transit agency's board of directors.

#### **49 CFR PART 673**

Under the Public Transportation Agency Safety Plan (PTASP) final rule, issued in late 2018, each operator of public transportation that receives federal financial assistance under 49 U.S.C. Chapter 53, such as OKC Streetcar, is required to develop and implement a PTASP based on the principles of Safety Management Systems (SMS).

Each transit operator is required to develop a PTASP by July 20, 2020, one year after the effective date of the final rule.

The final rule requires each operator's plan to require, at minimum:

- Approval of the plan by

the board of directors or equivalent entity;

- Methods for identifying and evaluating safety risks throughout the system;
- Strategies to minimize the exposure of the public, personnel and property to hazards;
- An annual review and update of the plan;
- Performance targets based on the safety performance criteria established in a National Public Transportation Safety Plan;
- An adequately trained Safety Officer who reports directly to the general manager, president, or equivalent officer; and
- A comprehensive training program.

#### **49 CFR PART 672**

In December 2015, the FTA issued interim safety certification training provisions for: 1) FTA and State agency personnel and their contractor support who conduct safety audits and examinations of public transportation systems; and 2) public transportation agency personnel who are directly responsible for safety oversight.

The interim safety certification training provisions were designed to advance FTA's proposed adoption of SMS to improve the safety of public transportation.

The interim provisions consisted of:

- (1) A required training program promoting SMS and ensuring technical competencies for FTA personnel and contractors who

conduct safety audits and examinations and SSOA personnel and contractors who conduct safety audits and examinations of rail transit systems not subject to FRA regulation;

(2) a required training program that includes promoting the adoption of SMS for designated rail transit systems employees who are directly responsible for safety oversight; and

(3) a voluntary component for personnel who are directly responsible for safety oversight of non-rail transit systems (e.g., passenger ferry, bus, bus rapid transit, and community transportation providers).

The interim rule established a mandate that ODOT, as the State Safety Oversight Agency, must develop a Technical Training Plan (TTP) which embodies robust regulations and requirements for the demonstration of these technical competencies.

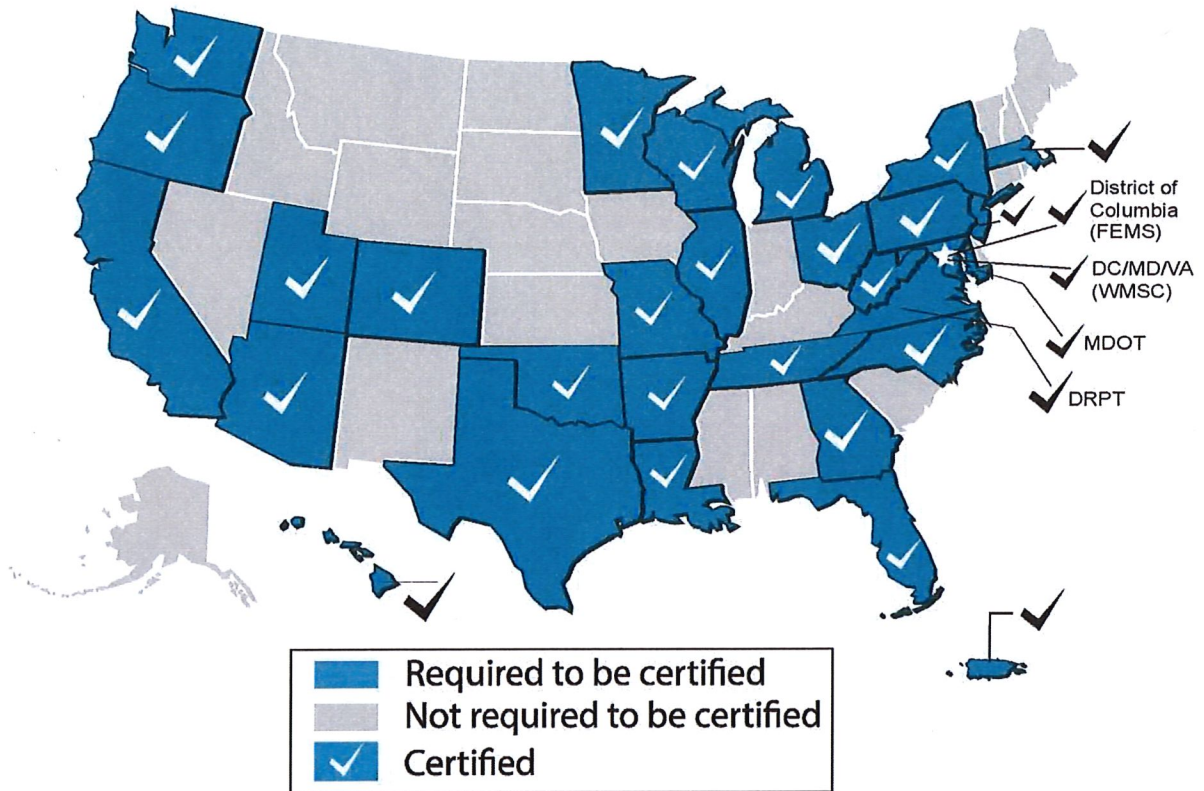
In 2018, FTA finalized the safety training certification rule with no substantial changes to the interim rule.

#### **49 CFR PART 625**

In October 2016, the FTA established the Transit Asset Management Plan final rule. This rule requires a rail transit agency to monitor and manage its assets to improve safety, increase reliability and performance, and to establish performance measures.

The purpose of this rule is to help achieve and maintain a state of good repair for the nation's public transportation assets. Transit asset management is a business model that uses asset condition





to optimize and prioritize funding.

The regulations apply to all transit providers that are recipients or subrecipients of federal financial assistance under 49 U.S.C. Chapter 53 and own, operate, or manage transit capital assets used in the provision of public transportation.

When reviewing OKC Streetcar's Transit Asset Management Plan, ODOT will ensure the plan includes an asset inventory applicable to rail, including assets that are owned by a third party or shared resources, as required and expected by FTA.

**49 CFR PART 630**

The National Transit Database (NTD) was established by Congress in 1974 as the primary source for information and statistics on the transit systems of the United

States. The NTD is administered by the FTA and records the financial, operating, and asset condition of transit systems. The NTD is designed to support local, state, and regional planning efforts and help governments and other decision-makers make multi-year comparisons and perform trend analyses.

To carry out its oversight responsibilities under this rule, ODOT will manage the FTA annual reporting process and ensure accurate and complete data reporting by OKC Streetcar.

**674 CERTIFICATION**

In October of 2018, the FTA announced that the State of Oklahoma obtained federal certification of its State Safety Oversight Program; well in advance of the important April 15, 2019 deadline. States had

to receive FTA certification by the deadline or new federal transit funds could not be awarded.

At the time of FTA's approval, the State of Oklahoma became 1 of 27 states to achieve this historic certification and meet the challenges of this new age of public transportation safety.

To achieve FTA certification, ODOT's oversight program successfully met several federal statutory requirements: financial and legal independence from OKC Streetcar; adoption and enforcement of safety laws applicable to rail transit; enhancement of ODOT's investigative and audit authority; establishment of dedicated and appropriately training staff and contractor resources to provide oversight.



# SYSTEM SAFETY PROGRAM PLAN

Under the requirements of 49 CFR Part 673, ODOT must ensure that OKC Streetcar develops and implements a Public Transportation Agency Safety Plan (PTASP) by July 20, 2020.

The PTASP is a crucial part of a Safety Management System or SMS, which is the strategic framework adopted by FTA to manage system safety within the public transportation industry.

SMS is a formal, top-down, organization-wide, data-driven approach to managing safety risk and assuring the effectiveness of safety risk mitigations. It includes systematic policies, procedures, and practices for the management of safety risk.

The goal of SMS is to bring management and employees together to build on the transit industry's existing safety foundation to:

- Control safety risk better
- Detect and correct safety problems earlier
- Share and analyze safety data more effectively
- Measure safety performance more carefully.

ODOT must ensure that OKC Streetcar establishes and implements an SMS — and the PTASP is the first of many steps.

The SMS program must be appropriately scaled to the size, scope, and complexity of the rail transit agency. Equally important, SMS must include the following elements: Safety Management Policy, Safety

Risk Management, Safety Assurance, and Safety Promotion.

ODOT's ultimate goal with SMS is to ensure that OKC Streetcar has an inclusive and effective process to direct resources to optimally manage safety.

Our hope is that by adopting SMS principles, OKC Streetcar will deepen its commitment to the safety of passengers and employees and will strengthen its core competencies in accident investigation, hazard management, safety data acquisition and analysis, and internal auditing.

SMS is scalable and effective across a broad range of organizations and applications.

It offers a stronger culture for employees and managers to work together to solve safety problems.

It helps public transportation agencies, states, and industry associations better prepare for and manage conditions that lead to negative events.

ODOT believes that SMS will assist OKC Streetcar in the same way it has for other transportation industries facing similar challenges such as aviation, maritime and railroads.

In December 2017, OKC Streetcar published its first System Safety Program Plan (SSPP). The SSPP was developed as part of the comprehensive safety program for the OKC Streetcar.

The plan is intended as an interim governance document until OKC Streetcar develops its Public Transportation Agency

Safety Plan.

Once adopted, the PTASP will supersede the SSPP.

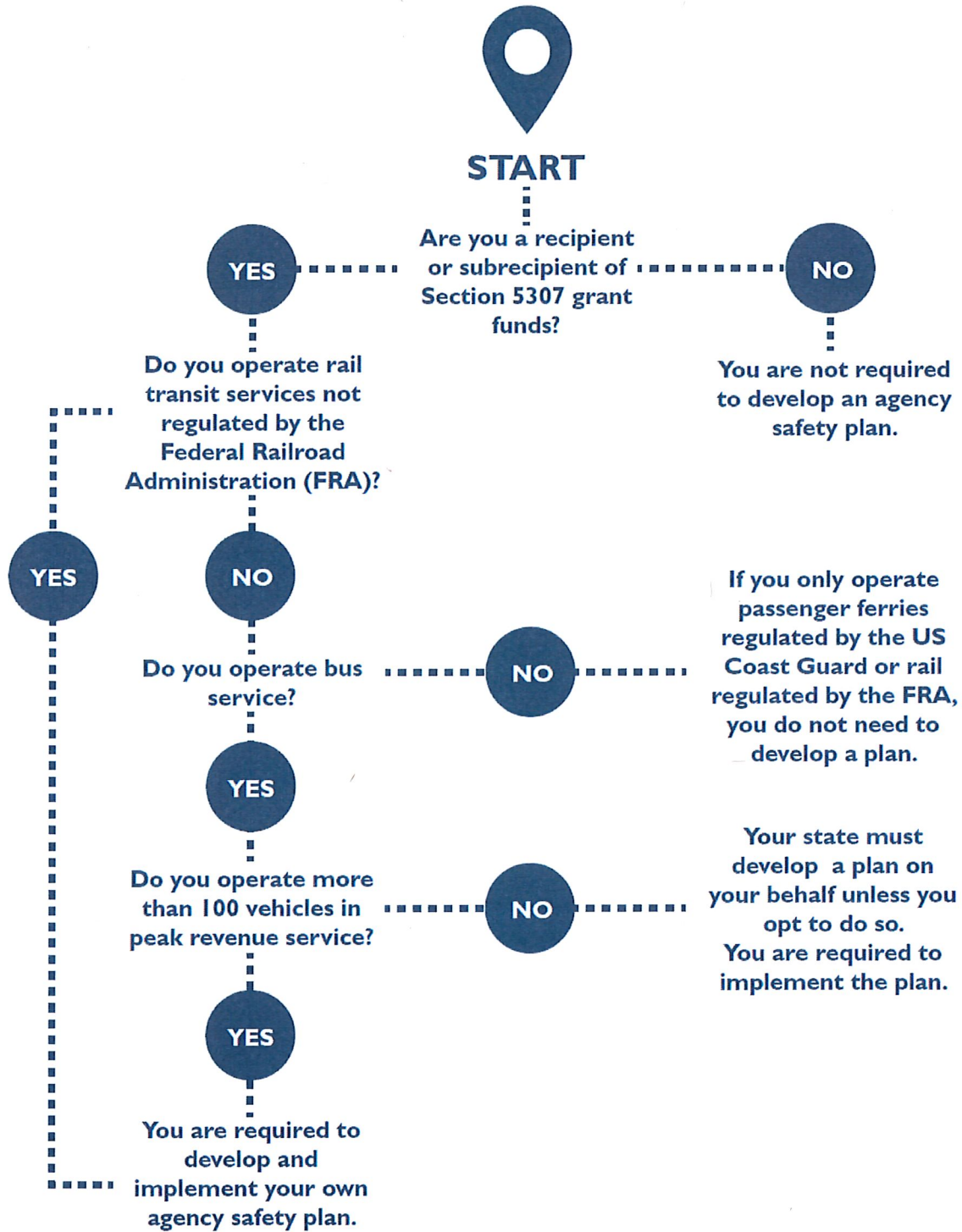
Until then, the current SSPP serves as a guideline for the technical and managerial safety strategies for the identification, assessment, prevention, and control of hazards to transit customers, employees, the public, and others who may come into contact with the OKC Streetcar system.

Specifically, the SSPP:

- States OKC Streetcar's commitment and philosophy to actively sustain safe transit operations.
- Establishes and manages safety activities intended to serve as countermeasures in minimizing risk and loss of OKC Streetcar resources, and to maximize the safety of the public.
- Integrates the system safety function throughout the OKC Streetcar organizational structure.
- Defines organizational safety responsibilities.
- Provides for the documentation and verification of safety activities.
- Evaluates activities to assure continued development and advancement of safety activities.



# WHO NEEDS TO CREATE A PUBLIC TRANSPORTATION AGENCY SAFETY PLAN?



OKC Streetcar must certify that its Public Transportation Agency Safety Plan is in place no later than July 20, 2020.





## SECURITY AND EMERGENCY PREPAREDNESS

Security is a vital component of every public transportation system. The Safety and Security Readiness Review (SSRR) performed by ODOT in the summer of 2018 assessed the initial security measures at OKC Streetcar and helped the agency transition to a more robust and comprehensive Security and Emergency Preparedness Plan (SEPP) to govern its operations.

Through a proactive oversight process, ODOT ensured that the OKC Streetcar's first version of its SEPP addressed the following goals:

- Establish a written security and emergency preparedness plan
- Define roles and responsibilities for security and emergency preparedness
- Ensure that operations and maintenance managers at all levels

are held accountable for security issues under their control

- Coordinate security and emergency preparedness plans with local and regional agencies
- Establish and maintain a security and emergency training program
- Establish plans and procedures to respond to the National Terrorism Advisory System
- Implement and reinforce a public security and emergency awareness program
- Establish and use a risk management process
- Establish and use an information sharing process for threat and intelligence information
- Conduct tabletop and functional drills
- Develop a

comprehensive cyber-security strategy

- Control access to security critical facilities
- Conduct physical security inspections
- Conduct background investigations of employees and contractors
- Control access to documents on security critical systems and facilities
- Define process for access to sensitive security information
- Establish and conduct security program audits

Annually, OKC Streetcar will be responsible for conducting a thorough review of its security and emergency preparedness practices and submitting an updated version of the SEPP to ODOT for review and approval.





Examples of the security and emergency management practices and capabilities evaluated by the ODOT SSRR included the following:

- OKC Streetcar aligned the System Security Plan and the Emergency Management Plan into a unified SEPP.
- A Threat and Vulnerability Assessment was performed which identified effective mitigations to security and terrorism-related threats and vulnerabilities.
- OKC Streetcar established a plan for conducting a tabletop exercise that was completed in October 2018. The plan described a scenario in which a ton pickup truck strikes a streetcar. The participants included Herzog Transit Services, OKC Fire Department, OKC Police Department, OKC Public Involvement Officer, a 911 representative, and the TSA.
- OKC Streetcar developed a Continuity of Operations Plan for restoring operating capability following disruption of normal operations.
- OKC Streetcar received operation manuals including information on access control, video surveillance, and security fences and gates.
- OKC Streetcar planned against intrusion access in its Preliminary Design Report and Pre-Revenue Operations Plan.

As of December 31, 2018 there were 5 open corrective action plans related to security from the SSRR. In carrying out its oversight activities, ODOT will continue to work closely with OKC Streetcar to close the remaining open items and monitor the implementation of the agency's security and emergency management program.





## INTERNAL AUDIT PROGRAM

In late 2018, ODOT approved the first Internal Safety and Security Audit Plan for the OKC Streetcar system.

The purpose of the internal safety and security audit program is to inform OKC Streetcar if its safety, security, and emergency management programs and activities are meeting federal, state, and transit agency requirements.

Over the course of a three-year audit period, beginning with calendar year 2019, OKC Streetcar will be required to perform a series of internal audits to verify the compliance and effectiveness of each element of its SSPP, SEPP, and relevant procedures.

To ensure open and timely communications, OKC Streetcar is required to provide a 30-day notification to the

ODOT State Safety Oversight Program Manager prior to the conduct of each internal audit.

Annually, following the completion of the scheduled internal audits, and the preparation of the applicable internal audit reports, the Accountable Executive of OKC Streetcar must certify compliance of the transit system with its SSPP and SEPP, and define the specific areas of non-compliance with appropriate corrective action plans.

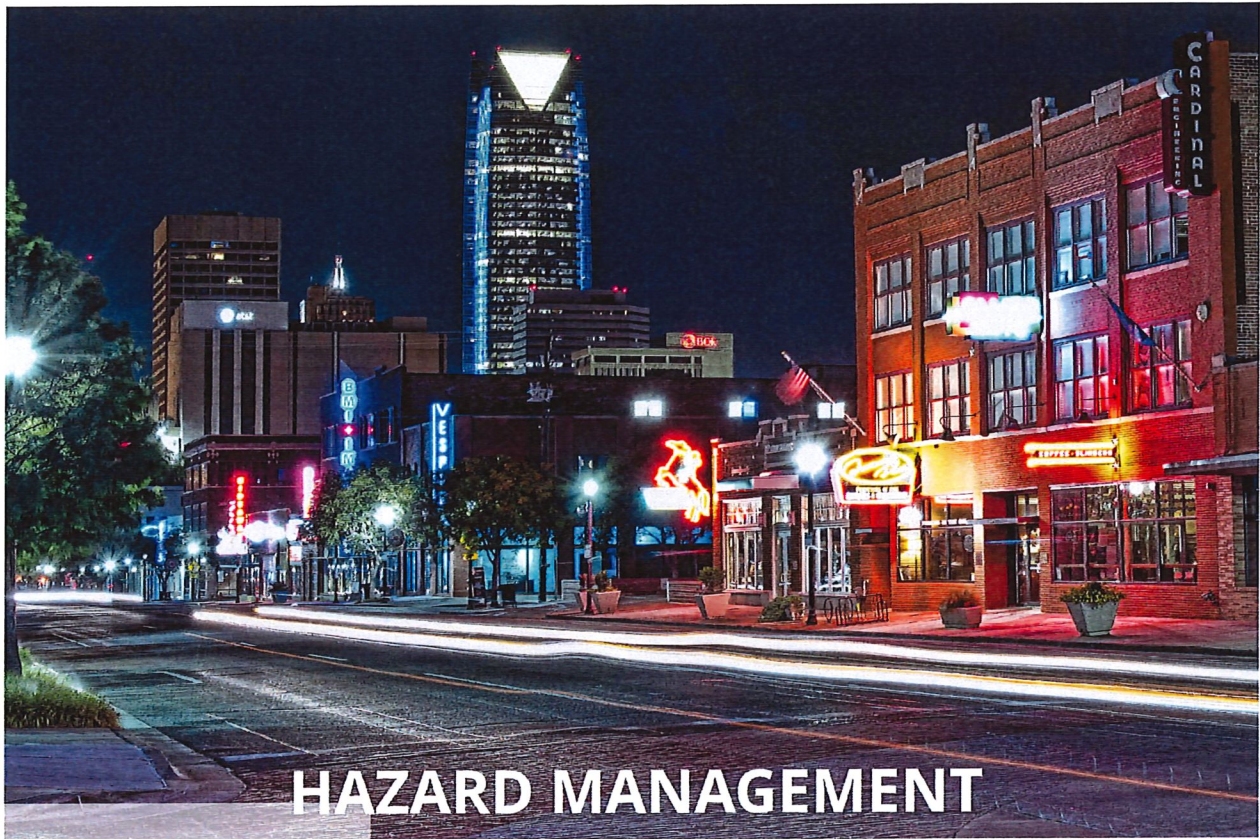
In addition to this letter of certification, OKC Streetcar will produce and submit an Internal Audit Annual Report to ODOT for review and approval.

ODOT looks forward to the submittal of the first Internal Audit Annual Report in the first quarter of 2020.

### 6 Characteristics of Effective Audit Plans

- ▶ Endorsed by top management
- ▶ Establish safety and security goals and objectives
- ▶ Identify safety and security roles and responsibilities of all departments and functions
- ▶ Require cooperation with executive leadership to address safety and security issues
- ▶ Identify an audit process that is managed by the transit agency and overseen by the SSOA
- ▶ Require timely communication and coordination with the SSOA





# HAZARD MANAGEMENT

According to federal law, each rail transit agency must establish a safety plan that includes methods for identifying, evaluating, and minimizing exposure of patrons, employees, and the general public to safety risks, hazards and unsafe conditions.

These requirements are consistent with the safety concept, *Safety Risk Management*, which involves the development of processes and activities to help the transit agency to better identify hazards associated with its operations.

In July 2018, with the Safety and Security Readiness Review (SSRR) of OKC Streetcar, ODOT focused on this concept by taking a close look at how the Preliminary Hazard Analyses (PHA) and Threat and

Vulnerability Assessment (TVA) were used to identify and mitigate hazards during the design, construction, installation, testing, and operations and maintenance readiness phases of the project.

ODOT concluded that although the PHA and TVA identified proposed mitigations, the process could benefit from a mechanism to facilitate tracking and resolution of hazards, threats, and vulnerabilities through all phases of the project.

The corrective action plan issued by ODOT to OKC Streetcar calls for expansion of the tracking log to include the ability to capture the party responsible for implementation, proposed completion date, actual completion date, verification document

reference, and status. As of December 31, 2018 this item remained open. ODOT will continue to work with OKC Streetcar to close open items related to safety risks and uphold the *Safety Risk Management* principles in ODOT's Program Standard.





# EVENT NOTIFICATION, INVESTIGATION AND REPORTING

49 CFR 674 brought the safety community, including ODOT and OKC Streetcar, updated definitions and reporting criteria for safety events such as accidents, incidents, and occurrences.

## ACCIDENT

ODOT must consider an event an accident in cases that lead to a fatality within 30 days of the event, a person or people suffering from serious injury, any derailment of a rail transit vehicle, or a collision involving a rail transit vehicle.

After an accident, ODOT must ensure OKC Streetcar performs the following tasks:

- Notify ODOT and the FTA of the accident within 2 hours
- Report the accident to the FTA within 30 days via the National Transit Database.
- Record the accident for Safety Management System analysis.

## INCIDENT

In contrast, ODOT must determine an event is an "Incident" if it results in a personal injury that is not a serious injury, a person or people requiring medical transportation away from the event, or non collision-related damage to equipment, rolling stock, or infrastructure that disrupts the operations of the rail transit agency.

After an incident, ODOT must ensure OKC Streetcar is

required to:

- Report the incident to the FTA within 30 days via the National Transit Database.
- Record the incident for Safety Management System analysis.

## OCCURRENCE

Lastly, ODOT classifies an event as an occurrence if there is no personal injury, but there is non-collision related damage to equipment, rolling stock, or infrastructure that does not disrupt the operations of the rail transit agency.

In 2018, OKC Streetcar experienced a few reportable events while in the construction and testing phase. Below is a summary of those events.

### OCTOBER 19, 2018

**Pantograph BNSF Bridge Collision:** a streetcar departed its station to pass beneath the BNSF bridgeway and did not lower its pantograph, thus the pantograph collided with the bridge leading to substantial damage to the pantograph. The probable causes involved human factors, rule violations, and organizational issues.

### NOVEMBER 11, 2018

**Derailment:** during the testing phase, a streetcar intended to diverge right at a turnout. The operator requested and received authorization to pass through a stop bar signal but the switch was not properly aligned and the train continued straight. The probable causes were equipment failure,

operating rule violations, and human factors.

### DECEMBER 26, 2018

**Streetcar Collision with Ambulance:** an ambulance crossed over lane markings under the BNSF bridge due to reduced clearance under the bridge and the streetcar made contact with the ambulances mirror. The probable cause was due to a design issue with the lane clearances beneath the bridge.

## CORRECTIVE ACTIONS

As a result of these accidents, the rail transit agency developed 9 Corrective Action Plans to prevent recurrence of similar events. The Department is overseeing OKC Streetcar's creation of a master CAP log which includes event mitigations.







For the State of Oklahoma,  
ODOT will conduct audits of  
the OKC Streetcar system  
annually

## SSO ANNUAL AUDITS AND INSPECTIONS

Another major achievement for the State Safety Oversight Program in 2018 was the adoption of the annual audits and inspections program described within the ODOT Program Standard. As required by 49 CFR Part 674, ODOT must conduct an audit of the safety and security plans for the rail transit agency within its jurisdiction at least once every three years.

For the State of Oklahoma, ODOT will conduct audits of the OKC Streetcar system annually. For each annual audit, ODOT will develop an audit schedule, procedures, and checklists to ensure each element subject to audit that year is properly assessed. The audit criteria will be established using the Program Standard, FTA regulations and guidelines, and industry best practices.

The ODOT SSO Program Manager will determine the composition of the audit team,

which will consist of ODOT SSO personnel, a contractor, or a combination of the two.

ODOT's key objectives for its annual audits are to determine if: 1) The safety and security plans and procedures are being followed by OKC Streetcar, 2) Hazards, threats, and vulnerabilities are being identified and resolved in a timely manner, 3) OKC Streetcar's internal safety and security audit process is effective.

Following each annual audit, ODOT will issue a comprehensive report to OKC Streetcar containing results from the audit, including findings. After the report is submitted to OKC Streetcar, the rail transit agency is required to develop formal corrective action plans to address the findings.

Typical verification methods used by ODOT are interviews, document reviews, and field observations. ODOT is currently

scheduled to conduct its first annual audit of OKC Streetcar in December 2019.

In addition to the annual audit, ODOT may also conduct periodic observations under a program of inspection requirements established by ODOT. The intent of the inspections is to conduct ongoing assessments of rule compliance, employee training, safety-related conditions, and to generally keep apprised of the workings of OKC Streetcar.

Inspections and observations will be initiated at ODOT's discretion, but may take place following accidents, incidents, and employee allegations of safety concerns.

These inspections may include field observations along the OKC Streetcar alignment including signals, track and switches, on vehicles, at stop platforms, as well as the storage and maintenance facility.





# FTA REPORTING

As the State Safety Oversight Agency, ODOT must send annual reports to the FTA, Governor of the State of Oklahoma, and the governing body of the OKC Streetcar summarizing its oversight activities for the previous calendar year.

## FTA REPORT

On or before March 15 of each year, ODOT must submit the following to the FTA electronically:

- The adopted Program Standard, with an indication of any changes in the last 12 months
- Evidence that each of its employees and contractors has completed the requirements of the Public Transportation Safety Certification

Training Program (or their anticipated date of completion)

- A publicly available report that summarizes oversight activities for the preceding 12 months, describes causal accident factors identified through investigation, and identifies the status of corrective actions, changes to agency safety plans, and the level of effort by the ODOT in carrying out oversight
- A summary of the triennial audits completed by ODOT during the preceding 12 months, and OKC Streetcar's progress in carrying out corrective action plans arising from triennial audits

- Evidence that ODOT has reviewed and approved any changes to the agency safety plan during the preceding 12 months
- A certification that ODOT is in compliance with the requirements for FTA annual reporting

## SSO REPORT

With this publication, ODOT has completed its requirements to prepare an annual report of its oversight activities for distribution to the Governor of the State of Oklahoma and OKC Streetcar.

Future reports will provide updates on program activities such as accident trend analysis, corrective actions to improve rail safety, and progress toward SMS.



# SAFETY AND SECURITY READINESS REVIEW

During the week of July 16 – 23, 2018, ODOT, with the assistance of Dovetail Consulting, conducted a Safety and Security Readiness Review (SSRR) of the OKC Streetcar project to determine the quality and effectiveness of the implementation of the safety and security certification program for the system's entry into revenue service. The SSRR consisted of an evaluation of the following 10 certification requirements:

- Requirement 1 - Program Management, Certification Elements
- Requirement 2 - Safety and Security Design Criteria
- Requirement 3 - Design Criteria Conformance
- Requirement 4 - Construction Specification Conformance
- Requirement 5 - Preliminary Hazard Analysis
- Requirement 6 - Threat and Vulnerability Assessment
- Requirement 7 - System Integration Test Program
- Requirement 8 - System Readiness Drills and Familiarization Training
- Requirement 9 - Operations and Maintenance Readiness
- Requirement 10 - Project Readiness, Safety and Security Certification Verification Report

On July 18, 2018, ODOT also conducted a walk-through of the alignment to observe the construction activities. The final SSRR report was submitted to OKC Streetcar in October 2018 and identified 41 findings.

In its report, ODOT explained the types of conditions that warranted a finding such as conducting business in compliance with applicable requirements, but no appropriate written plan, policy, or procedure in place, or the existing plan, policy, or procedure is not appropriate or in accordance with applicable requirements. Additionally, ODOT clarified in its report those circumstances where OKC Streetcar may have had a resource or organizational issue preventing sufficient devotion of resources to required activities.

Following the issuance of the report, OKC Streetcar provided ODOT with responses to the findings for its review and closure. The most critical safety and security findings were related to the development of a design criteria manual, documentation and acceptance of design deviations, and tracking and resolution of hazard and threat mitigations throughout all phases of the project.

As of December 31, 2018, there were 28 open findings and 13 closed. ODOT continues to work with OKC Streetcar to close the remaining findings and verify the actions required through document reviews, field observations, and inspection activities.





# TECHNICAL TRAINING PLAN

In 2018, FTA finalized a new rule, 49 CFR Part 672, Safety Certification Training Provisions.

Under these new federal requirements, ODOT is required to develop and implement a Technical Training Plan (TTP) which is a formal educational program in 17 technical competency areas specific to the rail transit agencies in ODOT's jurisdiction, namely OKC Streetcar.

## CLASSROOM TRAINING

When the TTP is complete, ODOT will have the capability to deliver a classroom training program for the safety and security plans and management functions (i.e. non-physical assets and equipment) of OKC Streetcar to its SSO staff and contractors through a curriculum guide, syllabus, training modules, and quizzes.

The classroom training will address the following competency areas:

- Organizational Structure,
- System Safety Program Plan / Public Transportation Agency Safety Plan
- Security and Emergency Preparedness Plan
- Territory and Schedules
- Current Bulletins, General Orders
- Operations and Maintenance Rule

## Books

- Safety Rules,
- Standard Operating Procedures,
- Roadway Worker Protection
- Employees Hours of Service and Fatigue Management Program
- Employee Observation and Testing Program, and
- Employee Training and Certification Requirements

## FIELD TRAINING

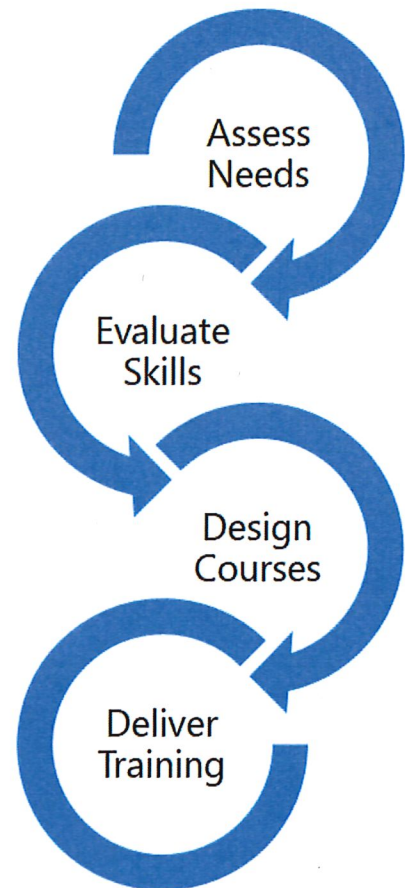
The TTP will also include familiarization training of OKC Streetcar physical assets and equipment. The field training program will verify familiarization of the SSO staff and contractors with:

- Vehicle inspection and maintenance programs, schedules and records,
- Track inspection and maintenance programs,
- Tunnels, bridges, and other structures inspection and maintenance programs, schedules and records,
- Traction power (substation and OCS), load dispatching, inspection and maintenance programs, schedules and records
- Signal and train control inspection and maintenance programs, schedules and records,
- Other inspection and maintenance programs, schedules, and records.

ODOT will complete its TTP in two phases, with Phase One scheduled for completion in late 2019.

ODOT will treat the TTP as a living document that will be reviewed and updated on an annual basis to incorporate changes from federal rules and guidance, ODOT Program Standard, or the OKC Streetcar safety and security plans, operations and maintenance rules and procedures, organizational structure, and training.

## ODOT TTP DEVELOPMENT PROCESS





# TRANSIT ASSET MANAGEMENT PLAN



In its final rule, 49 CFR Part 625, Transit Asset Management, published in October 2016, the FTA required rail transit agencies to establish and implement a Transit Asset Management Plan that addresses the following minimum elements:

- A definition of the term 'state of good repair' that includes objective standards for measuring the condition of capital assets of recipients, including equipment, rolling stock, infrastructure, and facilities;
- A requirement to develop a Transit Asset Management Plan;
- A requirement to report on the condition of the system and description of any change in condition since the last

report;

- An analytical process or decision support tool for use by public transportation systems; and
- Performance measures for capital assets and performance targets for improving the condition of these assets.

When implementing its Transit Asset Management Plan for rail assets, ODOT is requiring OKC Streetcar to adhere to the principles for the state of good repair.

In 2018, OKC Streetcar had not yet established transit asset management requirements for rail. Going forward, ODOT will specify the asset management requirements in its Program Standard and will require OKC Streetcar to develop and transmit a compliant plan.

## 9 TRANSIT ASSET MANAGEMENT PLAN ELEMENTS





# CONTACT US

## Oklahoma Department of Transportation

200 NE 21st St  
Oklahoma City, OK  
73105

<https://www.odot.org>

### **Ernestine Mbroh**

Transit Programs Division Manager  
(405) 522-1829  
embroh@odot.org

### **Steve Jagosh**

Project Manager  
(405) 522-9087  
sjagosh@odot.org

### **Jason Huff**

Project Manager  
(405) 521-2531  
jhuff@odot.org

