# Lower Rio Grande Valley Development Council

# **Dba**

# Valley Metro



# Public Transportation Agency Safety Plan

Version 1

Adopted June 24, 2020

Purposed board approval: August 31, 2022

In compliance with 49 CFR Part 673

Developed in conjunction with the Texas Department of Transportation

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# **1. EXECUTIVE SUMMARY**

Moving Ahead for Progress in the 21st Century (MAP-21) granted the Federal Transit Administration (FTA) the authority to establish and enforce a comprehensive framework to oversee the safety of public transportation throughout the United States. MAP-21 expanded the regulatory authority of FTA to oversee safety, providing an opportunity to assist transit agencies in moving towards a more holistic, performance-based approach to Safety Management Systems (SMS). This authority was continued through the Fixing America's Surface Transportation Act (FAST Act).

In compliance with MAP-21 and the FAST Act, FTA promulgated a Public Transportation Safety Program on August 11, 2016, that adopted SMS as the foundation for developing and implementing a Safety Program. FTA is committed to developing, implementing, and consistently improving strategies and processes to ensure that transit achieves the highest practicable level of safety. SMS helps organizations improve upon their safety performance by supporting the institutionalization of beliefs, practices, and procedures for identifying, mitigating, and monitoring safety risks.

There are several components of the national safety program, including the National Public Transportation Safety Plan (NSP), that FTA published to provide guidance on managing safety risks and safety hazards. One element of the NSP is the Transit Asset Management (TAM) Plan. Public transportation agencies implemented TAM plans across the industry in 2018. The subject of this document is the Public Transportation Agency Safety Plan (PTASP) rule, 49 CFR Part 673, and guidance provided by FTA.

Safety is a core business function of all public transportation providers and should be systematically applied to every aspect of service delivery. At Valley Metro, all levels of management, administration and operations are responsible for the safety of their clientele and themselves. To improve public transportation safety to the highest practicable level in the State of Texas and comply with FTA requirements, the Texas Department of Transportation (TxDOT) has developed this Agency Safety Plan (ASP) in collaboration with the Rio Grande Valley Metropolitan Planning Organization (MPO), and the Lower Rio Grande Valley Development Council (LRGVDC), dba Valley Metro.

To ensure that the necessary processes are in place to accomplish both enhanced safety at the local level and the goals of the NSP, LRGVDC, on behalf of Valley Metro, adopts this ASP and the tenets of SMS including a Safety Management Policy (SMP) and the processes for Safety Risk Management (SRM), Safety Assurance (SA), and Safety Promotion (SP), per 49 U.S.C. 5329(d)(1)(A).<sup>1</sup> While safety has always been a primary function at Valley Metro, this document lays out a process to fully implement an SMS over the next several years that complies with the PTASP final rule.

<sup>&</sup>lt;sup>1</sup> Federal Register, Vol. 81, No. 24

## A. Plan Adoption - 673.11(a)(1)

This Public Transit Agency Safety Plan is hereby adopted, certified as compliant, and signed by:

Ken Jones, Manuel Cruz, Executive Director of Lower Rio Grande Valley Development Council

ACCOUNTABLE EXECUTIVE DIRECTOR SIGNATURE

DATE

Since Valley Metro is considered a department of the LRGVDC, the main governing body is the LRGVDC Board of Directors. Approval of this plan by the LRGVDC occurred on June 24, 2020, August 31, 2022, and is documented in the attached resolution from the Board Meeting.

## B. Certification of Compliance – 673.13(a)(b)

TxDOT certifies on June 24, 2020, August 31, 2022, that this Agency Safety Plan is in full compliance with 49 CFR Part 673 and has been adopted and will be implemented by Valley Metro as evidenced by the plan adoption signature and necessary Board approvals under Section 1.A of this plan.

# 2. TRANSIT AGENCY INFORMATION - 673.23(D)

The LRGVDC – Valley Metro provides public transportation in urbanized and non-urbanized areas of the lower Rio Grande Valley through our transit department, Valley Metro. The LRGVDC main office is located at 301 W. Railroad St., Weslaco, TX 78596, and the Valley Metro Transit Center is located at 510 S. Pleasantview Drive, Weslaco, TX 78596.

Valley Metro currently operates twenty six (26) twenty – five (25) flex routes, four (4) four (4) demand response, five (5) micro-transit/fast ride (uber service), and three (3) fixed routes. Flexed route service operates in Hidalgo County, Cameron County, and Starr County, weekday demand response service operates in Willacy County from 7:00 am to 4:00 pm, MicroTransit-Fast Ride from 8:00 a.m. – 5:00 p.m., Starr County from 7:00 am to 4:00 pm, and Zapata County from 7:00 p.m. to 4:00 p.m. 8:00 am to 5:00 pm. Since Valley Metro is considered a department of the LRGVDC, the agency is managed by the LRGVDC Director of Regional Transit and the management team consisting of the Program Supervisor II - IV – Maintenance, Operations & Planning, the Program Specialist II-Risk, , and Chief Safety Officer (CSO)/Safety.

No additional transit service is provided by Valley Metro on behalf of another transit agency or entity at the time of the development of this plan.

Table 1 contains agency information while an organizational chart for Valley Metro is provided in Figure 1. Table 1: Agency Information

Information Type	Information		
Full Transit Agency Name	Lower Rio Grande Valley Development		
	Council District, dba Valley Metro		
Transit Agency Address	510 S Pleasant View Drive Weslaco, Texas		
Name and Title of Accountable Executive 673.23(d)(1)	Tom Logan, Maribel Contreras Director of		
	Regional Transit (Valley Metro)		
Name of Chief Safety Officer or SMS Executive	Dora Cruz, Program Specialist II		
673.23(d)(2)	Dora Cruz, Frogram Specialist n		
Key Staff	Program Supervisor I-VI – Operations,		
	Maintenance, and Planning		
	Planner II, Grant Coordinator, Assistant		
Key Staff	Director, Program Supervisor I -IV,		
	Operations, Maintenance, and Planning		
Mode(s) of Service Covered by This Plan 673.11(b)	Fixed/Flex Route Bus & Demand Response		
List All FTA Funding Types (e.g., 5307, 5310, 5311)	5307,5310, 5311, 5311f, 5339, and 5339b		
Mode(s) of Service Provided by the Transit Agency	MB. Commuter and Domand Bospanso		
(Directly operated or contracted service)	MB, Commuter and Demand Response		
Number of Vehicles Operated	<del>82</del> 66		

FIGURE 1: VALLEY METRO ORGANIZATIONAL CHART -



LRGVDC – Valley Metro Organizational Chart

### A. Authorities & Responsibilities - 673.23(d)

As stated in 49 CFR Part 673.23(d), Valley Metro is establishing the necessary authority, accountabilities, and responsibilities for the management of safety amongst the key individuals within the organization, as those individuals relate to the development and management of our SMS. In general, the following defines the authority and responsibilities associated with our organization.

The **Accountable Executive** has ultimate responsibility for carrying out the SMS of our public transportation agency, and control or direction over the human and capital resources needed to develop and maintain both the ASP, in accordance with 49 U.S.C. 5329(d), and the agency's TAM Plan, in accordance with 49 U.S.C. 5326. The Accountable Executive has authority and responsibility to address substandard performance in the Valley Metro SMS, per 673.23(d)(1).

**Agency leadership and executive management** are those members of our agency leadership or executive management, other than the Accountable Executive, CSO/SMS Executive, who have authority or responsibility for day-to-day implementation and operation of our agency's SMS.

The (**CSO**) **Chief Safety Officer** is an adequately trained individual who has the authority and responsibility as designated by the Accountable Executive for the day-to-day implementation and operation of the Valley Metro SMS. As such, the CSO is able to report directly to our transit agency's Accountable Executive.

**Key staff** are staff, groups of staff, or committees to support the Accountable Executive, CSO, or SMS Executive in developing, implementing, and operating our agency's SMS.

In compliance with the IIJA and FTA's Dear Colleague Letter, dated Feb 2022, LRGVDC has established a safety committee consisting of an equal number of frontline and managerial employees. The safety committee shall; consist of an equal number of frontline employee representatives, of the frontline workforce employed by the recipient or management representatives; and have, at a minimum, responsibility for- identifying and recommending risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the agency's safety risk assessment; identifying mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; and identifying safety deficiencies for purposes of continuous improvement. The safety committee shall review and approve the PTASP prior to Board approval

**Front line employees** perform the daily tasks and activities where hazards can be readily identified so the identified hazards can be addressed before the hazards become adverse events. These employees are critical to SMS success through each employee's respective role in reporting safety hazards, which is where an effective SMS and a positive safety culture begins.

In addition, over the next year, Valley Metro will be reviewing and modifying, if necessary, our current job descriptions to ensure the job descriptions comply with 49 CFR Part 673.

# **3. SAFETY POLICIES AND PROCEDURES**

### A. Policy Statement – 673.23(a)

Safety is Valley Metro's first priority. Valley Metro is committed to implementing, developing, and improving strategies, management systems, and processes to ensure that all our activities uphold the highest level of safety performance and meet required safety standards.

We will develop and embed a safety culture in all our activities that recognizes the importance and value of effective safety management and acknowledges at all times that safety is paramount.

We will clearly explain for all staff their accountabilities and responsibilities for the development and operation of the Safety Management System.

For passengers and employees, we will minimize the safety risk associated with transit service to as low as reasonably practicable and we will work to comply with and, wherever possible, exceed legislative and regulatory requirements and standards. We also will work to ensure that all employees are provided with adequate and appropriate safety information and training, are competent in safety matters, and are only allocated tasks commensurate with their skills.

We have established Safety Performance Targets (SPT) to help us measure the overall effectiveness of our processes and ensure we meet our safety objectives. We will issue quarterly reports to the entire organization documenting how well we met our safety performance targets and describing the safety risk mitigations we implemented to reduce safety risk.

### I. Employee Safety Reporting Program – 673.23(b) –

Frontline employees are a significant source of safety data. These employees are typically the first to spot unsafe conditions that arise from unplanned conditions either on the vehicles, in the maintenance shop, or in the field during operations. For this reason, the Employee Safety Reporting Program (ESRP) is a major tenet of the PTASP Rule. Under this rule, agencies must establish and implement a process that allows employees to report safety conditions directly to senior management; provides protections for employees who report safety conditions to senior management; and includes a description of employee behaviors that may result in disciplinary action.

Valley Metro has a policy in place called the *LRGVDC Personnel Policy Manual* (Appendix A, Table 8 shows the document name, file name, and date of adoption). In *Section <del>11 Health and Safety 3.05</del> Workplace Safety, each employee of LRGVDC shall be responsible to perform and observe safety standards relevant to job function. Employees are expected to exercise reasonable care for themselves and others while on duty.* the document states employees are responsible for conducting their work activities in a manner that is protective of their own health and safety, as well as those of other employees. Further to this, the *Operating Policy and Procedures Manual* (Appendix A) provides Valley Metro with appropriate disciplinary actions. Every year, Valley Metro will review and modify, if

# necessary, our *LRGVDC Personnel Policy Manual* to develop the procedure into a full ESRP to ensure that the procedure complies with 49 CFR Part 673.

As contained in the *General Policies Section* of the *LRGVDC Personnel Policy Manual*, LRGVDC conducts an *Open Door Policy* which states that the LRGDVC believes in direct and open communication to resolve problems, safety issues, complaints, and other work related matters.

In addition to the *Open Door Policy*, the *LRGVDC Personnel Policy Manual* provides *Appendix G* which is the *Whistle Blower Policy*. The *Whistle Blower Policy* is formulated to provide the opportunity to employees to access the LRGVDC Executive Committee in good faith in case they observe unethical and improper practices or any other wrongful conduct in the organization and to prohibit managerial personnel from taking any adverse personnel action against those employees. The (COG) Council of Governments complies with the Texas Whistleblowers Act which states "a state or local governmental entity may not suspend or terminate the employment of, or take other adverse personnel action against, a public employee who in good faith reports a violation of the law by the employing governmental entity or another public employee to an appropriate law enforcement authority." Texas Government Code Ann. §554.002

In general, the Valley Metro Employee Safety Reporting Program will ensure that all employees are encouraged to report safety conditions directly to senior management or their direct supervisor for elevation to senior management. The policy will include any contract employees. The policy will also spell out what protections are afforded employees who report safety related conditions and will describe employee behaviors that are not covered by those protections. The policy will also elaborate on how safety conditions that are reported will be reported back to the initiator(s) – either to the individual or groups of individuals or organization, dependent on the nature of the safety condition.

To bolster the information received from frontline employees, Valley Metro will also review our current policy for how our agency receives information and safety related data from employees and customers. If necessary, Valley Metro will develop additional means for receiving, investigating, and reporting the results from investigations back to the initiator(s) – either to the person, groups of persons, or distributed agency-wide to ensure that future reporting is encouraged.

### II. Communicating the Policy Throughout the Agency - 673.23(c)

Valley Metro is committed to ensuring the safety of our clientele, personnel, and operations. Part of that commitment is developing an SMS and agencywide safety culture that reduces agency risk to the lowest level possible. The first step in developing a full SMS and agencywide safety culture is communicating our SMP throughout our agency.

The SMP and safety objectives are at the forefront of all communications. This communication strategy will include posting the policy in prominent work locations for existing employees and adding the policy statement to the on-boarding material for all new employees. In addition, the policy statement will

become part of our agency's regular safety meetings and other safety communications efforts. The policy will be signed by the Accountable Executive so that all employees know that the policy is supported by management.

## B. PTASP Development and Coordination with TxDOT - 673.11(d)

This PTASP has been developed by the Texas Department of Transportation on behalf of the Rio Grande Valley MPO and the Lower Rio Grande Valley Development Council - District, dba Valley Metro, in accordance with all requirements stated in 49 CFR Part 673 applicable to a small public transportation provider. TxDOT mailed a formal call for participation in a State sponsored PTASP development process to all Texas Section 5307 small bus transit agencies on January 15, 2019 and followed that call with a series of phone calls and additional correspondence. Valley Metro provided a letter to TxDOT opting into participation on March 15, 2019 and has been an active participant in the development of this plan through sharing existing documentation and participating in communication and coordination throughout the development of this plan. The Valley Metro documentation used in the development of this plan is presented in Table 8, in Appendix A.

In support of tracking performance on our SA and SP processes, Valley Metro conducts a yearly safety culture survey. The survey is intended to help Valley Metro assess how well we communicate safety and safety performance information throughout our organization by gauging how safety is perceived and embraced by Valley Metro's administrators, supervisors, staff, and contractors. The survey is designed to help us assess how well we are conveying information on hazards and safety risks relevant to employees' roles and responsibilities and informing employees of safety actions taken in response to reports submitted through our ESRP. Results from our most recent survey were analyzed and incorporated into the implementation strategies contained in this ASP.

Once the documents were reviewed, an on-site interview was conducted with Valley Metro to gain a better understanding of the agency. This understanding was necessary to ensure that the ASP was developed to fit Valley Metro's size, operational characteristics, and capabilities.

The draft ASP was delivered to Valley Metro in March 2020 for review and comment. Once review was completed and any adjustments made, the final was delivered to Valley Metro for review and adoption.

## C. PTASP Annual Review - 673.11(a)(5)

Per 49 U.S.C. 5329(d)(1)(D), this plan includes provisions for annual updates of the SMS. As part of Valley Metro's ongoing commitment to fully implementing SMS and engaging our agency employees in developing a robust safety culture, Valley Metro will review the ASP and all supporting documentation annually. The review will be conducted as a precursor to certifying to FTA that the ASP is fully compliant with 49 CFR Part 673 and accurately reflects the agency's current implementation status. Certification will be accomplished through LRGVDC's annual Certifications and Assurances reporting to FTA.

The annual review will include the ASP and supporting documents (Standard Operating Procedures [SOPs], Policies, Manuals, etc.) that are used to fully implement all the processes used to manage safety at Valley Metro. All changes will be noted (as discussed below) and the Accountable Executive will sign and date the title page of this document and provide documentation of approval by the LRGVDC Board whether by signature or by reference to resolution.

The annual ASP review will follow the update activities and schedule provided below in Table 2. As processes are changed to fully implement SMS or new processes are developed, Valley Metro will track those changes for use in the annual review.

Task	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Review Agency Operations								
Review SMS Documentation								
• Safety Policy;								
Risk Management;								
• Safety Assurance; and								
Safety Promotion.								
Review Previous Targets and Set or Continue Targets								
Report Targets to National Transit Database (NTD),					1			
TxDOT, Rio Grande Valley MPO								
Make Any Necessary Adjustments to PTASP								
Update Version No., Adopt & Certify Plan								~
Compliance								

#### TABLE 2: ASP ANNUAL UPDATE TIMELINE

The following table, Table 3, will be used to record final changes made to the ASP during the annual update. This table will be a permanent record of the changes to the ASP over time.

Document Version	Section/Pages Changed	Reason for Change	Reviewer Name	Date of Change
Header		Text	Text	
Public	Text	Valley Metro on going	Maribel	Text
Transit	Annual Review – 673.11	commitment to fully	Contreras	August 31,
Agency	(a)(5)	implement and engage in	& Dora	2022
Safety Plan		developing a safety culture.	Cruz	
Header	Text	Text	Text	Text
Header	Text	Text	Text	Text

#### TABLE 3: ASP RECORD OF CHANGES

The implementation of SMS is an ongoing and iterative process, and, as such, this PTASP is a working document. Therefore, a clear record of changes and adjustments is kept in the PTASP for the benefit of safety plan performance management and to comply with Federal statutes.

## D. PTASP Maintenance - 673.11(a)(2)(c)

Valley Metro will follow the annual review process outlined above and adjust this ASP as necessary to accurately reflect current implementation status. This plan will document the processes and activities related to SMS implementation as required under 49 CFR Part 673 Subpart C and will make necessary updates to this ASP as Valley Metro continues to develop and refine our SMS implementation.

### E. PTASP Documentation and Recordkeeping - 673.31

At all times, Valley Metro will maintain documents that set forth our ASP, including those documents related to the implementation of Valley Metro's SMS and those documents related to the results from SMS processes and activities. Valley Metro will also maintain documents that are included in whole, or by reference, that describe the programs, policies, and procedures that our agency uses to carry out our ASP and all iterations of those documents. These documents will be made available upon request to the FTA, other Federal entity, or TxDOT. Valley Metro will maintain these documents for a minimum of three years after the documents are created. These additional supporting documents are cataloged in Appendix A and the list will be kept current as a part of the annual ASP review and update.

### F. Safety Performance Measures - 673.11(a)(3)

The PTASP Final Rule, 49 CFR Part 673.11(a)(3), requires that all public transportation providers must develop an ASP to include SPTs based on the safety performance measures established under the NSP. The safety performance measures outlined in the NSP were developed to ensure that the measures can be applied to all modes of public transportation and are based on data currently being submitted to the NTD. The safety performance measures included in the NSP are fatalities, injuries, safety events, and system reliability (State of Good Repair as developed and tracked in the TAM Plan).

There are seven (7) SPTs that must be included in each ASP that are based on the four (4) performance measures in the NSP. These SPTs are presented in terms of total numbers reported and rate per Vehicle Revenue Mile (VRM). Each of the seven (7) is required to be reported by mode as presented in Table 4.

Safety Performance Measure	SPT	SPT
Fatalities	Total Number Reported	Rate Per Total VRM
Injuries	Total Number Reported	Rate Per Total VRM
Safety Events	Total Number Reported	Rate Per Total VRM
System Reliability Mean distance between major mechanical failure		

#### TABLE 4: NSP SAFETY PERFORMANCE MEASURES

Table 5 presents baseline numbers for each of the performance measures. Valley Metro collected the past five (5) years of reported data to develop the rolling averages listed in the table.

#### TABLE 5: BASELINE 2019 2020 SAFETY PERFORMANCE MEASURES

Mode	Fatalities	Rate of Fatalities*	Injuries	Rate of Injuries*	Safety Events	Rate of Safety Events*	Mean Distance Between Major Mechanical Failure
Flexed Route (Bus)	0	0.00000%	3.0	0.00274%	3.0	0.00274%	109,420
Demand Response	0	0	0.0	0.00000%	0	0.00000%	17,261

\*rate = total number for the year/total revenue vehicle miles traveled

While safety has always been a major component of the Valley Metro operation, the adoption of this ASP will result in changes across all aspects of the organization. The SPTs set in Table 6 and Table 7 reflect an acknowledgment that SMS implementation will produce new information that will be needed to accurately set meaningful SPTs. We will set our targets at the current NTD reported five-year average as we begin the process of fully implementing our SMS and developing our targeted safety improvements. This will ensure that we do no worse than our baseline performance over the last five years.

#### TABLE 6: FLEXED ROUTE (BUS) SAFETY PERFORMANCE TARGETS

Mode	Baseline	Target
Fatalities	0	0
Rate of Fatalities*	0.0000%	0.00000%
Injuries	2.6	2.6
Rate of Injuries*	0.00020%	0.00020%
Safety Events	2.6	2.6
Rate of Safety Events*	0.00020%	0.00020%
Mean Distance Between	F8 140	F8 410
Major Mechanical Failure	58,149	58,419

\*rate = total number for the year/total revenue vehicle miles traveled

#### TABLE 7: DEMAND RESPONSE SAFETY PERFORMANCE TARGETS

Mode	Baseline	Target
Fatalities	0.0	0.0
Rate of Fatalities*	0.00000%	0.0000%
Injuries	.04	.04
Rate of Injuries*	0.00003%	0.00003%
Safety Events	.04	.04
Rate of Safety Events*	0.00003%	0.00003%
System Reliability	47,397	47,397
Other	0	0

\*rate = total number for the year/total revenue vehicle miles traveled

As part of the annual review of the ASP, Valley Metro will reevaluate our SPTs and determine whether the SPTs need to be refined. As more data is collected as part of the SRM process discussed later in this

plan, Valley Metro may begin developing safety performance indicators to help inform management on safety related investments.

## G. Safety Performance Target Coordination – 673.15(a)(b)

Valley Metro will make our SPTs available to TxDOT and the Rio Grande Valley MPO to aid in those agencies' respective regional and long-range planning processes. To the maximum extent practicable, Valley Metro will coordinate with TxDOT and the Rio Grande Valley MPO in the selection of State and MPO SPTs as documented in the Interagency Memorandum of Understanding (MOU).

Each year during the FTA Certifications and Assurances reporting process, LRGVDC will transmit any updates to our SPTs to both the Lower Rio Grande Valley MPO and TxDOT (unless those agencies specify another time in writing).

# 4. SAFETY MANAGEMENT SYSTEMS – 673 SUBPART C

As noted previously, FTA has adopted SMS as the basis for improving safety across the public transportation industry. In compliance with the NSP, National Public Transportation Safety Plan, and 49 CFR Part 673, Valley Metro is adopting SMS as the basis for directing and managing safety and risk at our agency. Valley Metro has always viewed safety as a core business function. All levels of management and employees are accountable for appropriately identifying and effectively managing risk in all activities and operations in order to deliver improvements in safety and reduce risk to the lowest practical level during service delivery.

SMS is comprised of four basic components - SMP, SRM, SA, and SP. The SMP and SP are the enablers that provide structure and supporting activities that make SRM and SA possible and sustainable. The SRM and SA are the processes and activities for effectively managing safety as presented in Figure 2.

FIGURE 2: SAFETY MANAGEMENT SYSTEMS



Implementing SMS at Valley Metro will be a major undertaking over the next several years. This ASP is the first step to putting in place a systematic approach to managing the agency's risk. Valley Metro has already taken several steps to implement SMS, such as developing this initial ASP and designating a (CSO) Chief Safety Officer. During the first year of implementation, Valley Metro will identify SMS roles and responsibilities, key stakeholder groups and key staff to support this process. Valley Metro will also ensure that these key staff receive SMS training, develop a plan for implementing SMS, inform stakeholders about the ASP, and discuss our progress with the LRGVDC Board and our planning partners.

### A. Safety Risk Management – 673.25

By adopting this ASP, Valley Metro is establishing the SRM process presented in Figure 3 for identifying hazards and analyzing, assessing, and mitigating safety risk in compliance with the requirements of 49 CFR Part 673.25. The SRM processes described in this section are designed to implement the Valley Metro SMS.

### FIGURE 3: SAFETY RISK MANAGEMENT PROCESS

Safety Hazard Identification

Safety Risk Assessment Safety Risk Mitigation

The implementation of the SRM component of the SMS will be carried out over the course of the next year. The SRM components will be implemented through a program of improvement during which the SRM processes will be implemented, reviewed, evaluated, and revised as necessary, to ensure the processes are achieving the intended safety objectives as the processes are fully incorporated into Valley Metro's SOPs.

The SRM is focused on implementing and improving actionable strategies that Valley Metro has undertaken to identify, assess and mitigate risk. The creation of a Risk Register provides an accessible resource for documenting the SRM process, tracking the identified risks, and documenting the effectiveness of mitigation strategies in meeting defined safety objectives and performance measures. The draft Risk Register is presented in Figure 4.



FIGURE 4: DRAFT RISK REGISTER

As the SRM process progresses through the steps of identifying what may be wrong, what could happen as a result, and what steps Valley Metro is taking to resolve the risk and mitigate the hazard, the Chief Safety Officer completes and publishes the various components of the Risk Register. These components include the use of safety hazard identification, safety risk assessment, and safety risk mitigation, as described in the following sections.

### I. Safety Hazard Identification – 673.25(b)

Valley Metro's *Transit Services Safety Plan* (Appendix A) is in place to identify safety and operational risks based on individual assets. The safety procedures provide identification methods for the following categories: operational safety, preventive maintenance, maintenance plan, the maintenance filing system, pre-trip/post-trip daily inspections, emergency procedures, accidents and breakdowns, evacuating the bus, fire or danger of fire, safety parking, evaluating injuries, contracting dispatch personnel, road calls, wheelchair lift inspection report, and safety equipment.

Although the current procedures have been effective in achieving our safety objectives, to ensure compliance with 49 CFR Part 673, Valley Metro is working to implement the following expanded SRM process.

The Valley Metro SRM process is a forward-looking effort to identify safety hazards that could potentially result in negative safety outcomes. In the SRM process, a hazard is any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infra-structure of a public transportation system; or damage to the environment.

Hazard identification focuses on out-of-the-norm conditions that need special attention or immediate action, new procedures, or training to resolve a condition that is unacceptable and return conditions to an acceptable level. Valley Metro uses a variety of mechanisms for identifying and documenting hazards, namely:

- Through training and reporting procedures, Valley Metro ensures personnel can identify hazards and that each employee clearly understands that the employee has a responsibility to immediately report any safety hazards identified to the employee's supervisors. Continued training helps employees to develop and improve the skills needed to identify hazards.
- Employee hazard training coupled with the Employee Safety Reporting Program ensures that Valley Metro has full use of information from frontline employees for hazard identification.
- Upon receiving the hazard report, supervisors communicate the identified hazard to the CSO for entry into the risk register for risk assessment, classification, and possible mitigation.
- In carrying out the risk assessment, the CSO uses standard reporting forms (e.g., *Pre-and Post-Trip Inspection Forms & Incident and Accident Reports* to mitigate mechanical based safety hazards that are identified) and other reports completed on a routine basis by administrative, operations and maintenance. The Valley Metro *Transit Services Safety Plan (Appendix A)* contains procedures for flagging and reporting hazards as a part of day-to-day operations.
- Program Supervisors are responsible for performing and documenting regular safety assessments, which include reporting and recommending methods to reduce identified hazards.
- Valley Metro uses incident reports and records to determine specific areas of training that need to be covered with employees to ensure safety hazard identification is continually improved, and thus ensure that hazards are identified before an event recurrence.
- Incident reports are also analyzed by the risk management team to identify any recurring patterns or themes that would help to identify underlying hazards and root causes of the event that can be mitigated to prevent recurrence.
- If a hazard is such that an employee would be reluctant to report the information due to perceived negative consequences (e.g., disciplinary action), alternative, anonymous reporting mechanisms are available through an anonymous suggestion box or anonymous online reporting form, or other secure mechanism.
- To increase the safety knowledge of our agency, the CSO, management personnel and subject matter experts are also encouraged to participate in available professional development activities and peer-to-peer exchanges as a source of expertise and information on lessons learned and best practices in hazard identification.
- Other sources for hazard identification include:

- Employee Safety Reporting Program
- o Inspections of personnel job performance, vehicles, facilities, and other data
- o Investigations of safety events
- o Safety trend analysis on data currently collected
- o Training and evaluation records
- Internal safety audits
- External sources of hazard information could include:
  - FTA and other federal or state authorities
  - Reports from the public
  - Safety bulletins from manufacturers or industry associations

In addition to identifying the hazard, the hazard identification process also classifies the hazard by type (organizational, technical, or environmental) to assist the CSO in identifying the optimal combination of departmental leadership and subject matter expertise to select in assembling the safety risk assessment team.

The various hazard types can also be categorized by subcategory for each type. For example, organizational hazards can be subcategorized into resourcing, procedural, training, or supervisory hazards. Each of the subcategories implies different types of mitigation strategies and potentially affect overall agency resources through varying costs for implementation. Technical hazards can be subcategorized into operational, maintenance, design, and equipment. Additionally, environmental hazards can be subcategorized into weather and natural, which is always a factor for every operation.

### II. Safety Risk Assessment – 673.25(c)

As part of the new SRM process, Valley Metro has developed methods to assess the likelihood and severity of the consequences of identified hazards, and prioritizes the hazards based on the safety risk. The process continues the use of the Risk Register described in the previous section to address the next two components.

To accurately assess a risk, Valley Metro may need to perform an investigation. Valley Metro currently investigates accidents or crashes but will need to develop a full investigation procedure to inform the SRM process. The investigation procedure will start with the framework found in the *Maintenance Plan's Maintenance Filing System* (Appendix A) and will be developed to cover all risk assessment. Once fully developed, the document will become the Investigation SOP. The SOP will include accident investigation procedures as well as risk investigation procedures. These procedures will be used to investigate risks identified from multiple sources including the ESRP.

Safety risk is based on an assessment of the likelihood of a potential consequence and the potential severity of the consequences in terms of resulting harm or damage. The risk assessment also considers

any previous mitigation efforts and the effectiveness of those efforts. The results of the assessment are used to populate the third and fourth components of the Risk Register as presented in Figure 5.

Hazard	Туре	Likelihood	Consequence	Resolution

FIGURE 5: SAFETY RISK ASSESSMENT STEPS IN POPULATING THE RISK REGISTER

The risk assessment is conducted by the CSO and their management team through the safety compliance committee supplemented by subject matter experts from the respective department or section to which the risk applies. The process employs a safety risk matrix, similar to the one presented in Figure 6, that allows the safety team to visualize the assessed likelihood and severity, and to help decision-makers understand when actions are necessary to reduce or mitigate safety risk.

RISK ASSESSMENT MATRIX							
SEVERITY LIKELIHOOD	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)			
Frequent (A)	High	High	High	Medium			
Probable (B)	High	High	Medium	Medium			
Occasional (C)	High	Medium	Medium	Low			
Remote (D)	Medium	Medium	Low	Low			
Improbable (E)	Medium	Low	Low	Low			

#### FIGURE 6: SAFETY RISK ASSESSMENT MATRIX

Although the current version of the matrix relies heavily on the examples and samples that are listed on the PTASP Technical Assistance Center website, lessons learned from the implementation process during

the coming years will be used to customize the matrix that Valley Metro will use to address our unique operating realities and leadership guidance.

The Risk Assessment Matrix is an important tool. If a risk is assessed and falls within one of the red zones, the risk is determined to be unacceptable under existing circumstances. This determination means that management must take action to mitigate the situation. This is the point in the process when SRMs are developed. If the risk is assessed and falls within one of the yellow zones, the risk is determined to be acceptable, but monitoring is necessary. If the risk falls within one of the green zones, the risk is acceptable under the existing circumstances.

Once a hazard's likelihood and severity have been assessed, the CSO enters the hazard assessment into the Risk Register that is used to document the individual hazard and the type of risk it represents. This information is used to move to the next step, which is hazard mitigation.

### III. Safety Risk Mitigation – 673.25(d)

Upon completion of the risk assessment, the CSO and the safety committee continue populating the Risk Register by identifying mitigations or strategies necessary to reduce the likelihood and/or severity of the consequences. The goal of this step is to avoid or eliminate the hazard or, when elimination is not likely or feasible, to reduce the assessed risk rating to an acceptable level (Figure 7). However, mitigations do not typically eliminate the risk entirely.



FIGURE 7: RISK REGISTER MITIGATION COMPONENT

To accomplish this objective, the CSO, through the risk management team, works with subject matter experts from the respective department or section to which the risk applies. The risk management team then conducts a brainstorming exercise to elicit feedback from staff and supervisors with the highest level of expertise in the components of the hazard.

Documented risk resolution and hazard mitigation activities from previous Risk Register entries and the resolution's documented level of success at achieving the desired safety objectives may also be reviewed and considered in the process. If the hazard is external (e.g., roadway construction by an

outside agency) information and input from external actors or experts may also be sought to take advantage of all reasonably available resources and avoid any unintended consequences.

Once a mitigation strategy is selected and adopted, the strategy is assigned to an appropriate staff member or team for implementation. The assigned personnel and the personnel's specific responsibilities are entered into the Risk Register. Among the responsibilities of the mitigation team leader is the documentation of the mitigation effort, including whether the mitigation was carried out as designed and whether the intended safety objectives were achieved. This information is recorded in the appendix to the Risk Register for use in subsequent SA activities and to monitor the effectiveness of the SRM program.

### B. Safety Assurance - 673.27 (a)

Safety Assurance means processes within the Valley Metro SMS that function to ensure a) the implementation and effectiveness of safety risk mitigation, and b) Valley Metro meets or exceeds our safety objectives through the collection, measurement, analysis and assessment of information.

SA helps to ensure early identification of potential safety issues. SA also ensures that safeguards are in place and are effective in meeting Valley Metro's critical safety objectives and contribute towards SPTs.

### I. Safety Performance Monitoring and Measuring – 673.27 (b)

As the first step in the Valley Metro SA program, Valley Metro collects and monitors data on safety performance indicators through a variety of mechanisms described in the following sections. Safety performance indicators can provide early warning signs about safety risks. Valley Metro currently relies primarily on lagging indicators representing negative safety outcomes that should be avoided or mitigated in the future. However, initiatives are underway to adopt a more robust set of leading indicators that monitor conditions that are likely to contribute to negative outcomes in the future. In addition to the day-to-day monitoring and investigation procedures detailed below, Valley Metro will review and document the safety performance monitoring and measuring processes as part of the annual update of this ASP.

### MONITORING COMPLIANCE AND SUFFICIENCY OF PROCEDURES - 673.27 (B)(1)

Valley Metro monitors our system for personnel with operations and maintenance procedures and also monitors these procedures for sufficiency in meeting safety objectives. A list of documents describing the safety related operations and maintenance procedures cited in this ASP is provided in Appendix A of this document.

Supervisors monitor employee compliance with Valley Metro SOPs through direct observation and review of information from internal reporting systems from both employees and customers.

Valley Metro addresses non-compliance with standard procedures for operations and maintenance activities through a variety of actions, including revision to training materials and delivery of employee

and supervisor training if the non-compliance is systemic. If the non-compliance is situational, then activities may include supplemental individualized training, coaching, and heightened management oversight, among other remedies.

Sometimes personnel are fully complying with the procedures, but the operations and maintenance procedures are inadequate and pose the risk of negative safety outcomes. In this case, the cognizant person submits the deficiency or description of the inadequate procedures to the SRM process. Through the SRM process, the SRM team will then evaluate and analyze the potential organizational hazard and assign the identified hazard for mitigation and resolution, as appropriate. The SRM team will also conduct periodic self-evaluation and mitigation of any identified deficiencies in the SRM process itself.

### MONITORING OPERATIONS - 673.27(B)(2)

Program Supervisors are required to monitor investigation reports of safety events and SRM resolution reports to monitor the department's operations to identify any safety risk mitigations that may be ineffective, inappropriate, or not implemented as intended. If it is determined that the safety risk mitigation did not bring the risk to an acceptable level or otherwise failed to meet safety objectives, then the supervisor resubmits the safety risk/hazard to the SRM process. The CSO will work with the supervisor and subject matter experts to reanalyze the hazard and consequences and identify additional mitigation or alternative approaches to implementing the mitigation.

### II. Safety Event Investigation – 673.27(B)(3)

Valley Metro currently conducts investigations of safety events. From an SA perspective, the objective of the investigation is to identify causal factors of the event and to identify actionable strategies that Valley Metro can employ to address any identifiable organizational, technical, or environmental hazard at the root cause of the safety event.

Safety Event Investigations that seek to identify and document the root cause of an accident or other safety event are a critical component of the SA process because they are a primary resource for the collection, measurement, analysis and assessment of information. Valley Metro gathers a variety of information for identifying and documenting root causes of accidents and incidents, including but not limited to:

- 1. Obtain from the Operator the following information:
  - a. The location of the incident and what direction they were traveling (inbound or outbound); if in station, indicate the situation.
  - b. The bus number and the route that they are on.
  - c. If there are injuries, describe how serious they appear (don't be too graphic, just generalize).
  - d. Provide information about any other vehicles or pedestrians involved and their descriptions.

- 2. Remind the operator of the safety procedures:
  - a. Turn on 4-way flashers. Place traffic warning devices (orange triangles).
  - b. Recheck anyone with injuries, do not move the seriously injured.
  - c. Render comfort and aid to anyone injured, as may be appropriate.
  - d. Evacuate the bus, if necessary.
  - e. Keep the two-way radio on and monitored.
  - f. Hand out courtesy cards to the passengers and to any witnesses.
  - g. Move the vehicle to the side of the road unless it is inoperable.
- 3. Notify the following:
  - a. Call the Police. Call Emergency Medical Personnel (EMP) 911
  - b. Notify/call the immediate supervisor on duty at the time.
- 4. The supervisor will:
  - Is responsible for notifying the LRGVDC Director of Human Resources/or Executive Director's designee for filing a written accident report immediately with the Executive Director.
  - b. Failure to report an on-the-job injury, no matter how minor, is grounds for disciplinary action.
  - c. Determine whether the General Manager or Assistant General Manager needs to be contacted but will give them a report when the supervisor finishes the initial assessment.
  - d. Let the Operator know that Police and supervision have been contacted and help and is on the way.
  - e. Assign a Standby Operator to pre-trip a bus in case a standby must drive the next round for the operator on that route. When needed, the Standby Operator may take a bus out to continue a route.
  - f. Let the Operator know that a Standby Operator and bus have been assigned to continue the route or that support personnel are bringing another bus out to them.
  - g. Refer the operator for required drug and alcohol testing in compliance with 49 CFR § 655.44 post-accident testing, if the safety event meets the definition of accident in 49 CFR § 655.4.
  - h. Record all accident information on the Daily Dispatch log, any missed trips, downtime, or bus change outs.
- 5. Dispatcher on duty will give the Operator an incident report to complete before the Operator leaves that day. Dispatcher will put the Operator's report in the Chief Safety Officer's box.
- 6. The CSO, working with subject matter experts, evaluates the incident report and other available information to determine the root cause of the accident/event. Follow up with driver or other cognizant parties may be necessary to elicit additional information.
- 7. The CSO identifies any hazards noted in the incident report and refers those hazards to the SRM process.

### MONITORING INTERNAL SAFETY REPORTING PROGRAMS – 673.27(B)(4)

As a primary part of the internal safety reporting program, our agency monitors information reported through the ESRP. When a report originating through the complaint process documents a safety hazard, the supervisor submits the hazards identified through the internal reporting process, including previous mitigation in place at the time of the safety event. The supervisor submits the hazard report to the SRM process to be analyzed, evaluated, and if appropriate, assigned for mitigation/resolution.

#### **OTHER SAFETY ASSURANCE INITIATIVES**

Because leading indicators can be more useful for safety performance monitoring and measurement than lagging indicators, Valley Metro is undertaking efforts to implement processes to identify and monitor more leading indicators or conditions that have the potential to become or contribute to negative safety outcomes. This may include trend analysis of environmental conditions through monitoring National Weather Service data; monitoring trends toward or away from meeting the identified SPTs; or other indicators as appropriate.

### C. Safety Promotion - 673.29

Management support is essential to developing and implementing SMS. SP includes all aspects of how, why, when and to whom management communicates safety related topics. SP also includes when and how training is provided. The following sections outline both the safety competencies and training that Valley Metro will implement and how safety related information will be communicated.

### I. Safety Competencies and Training – 673.29(a)

Valley Metro provides comprehensive training to all employees regarding each employee's job duties and general responsibilities. This training includes safety responsibilities related to the employee's position. In addition, regular driver safety meetings are held to ensure that safety related information is relayed to the key members of our agency's safety processes.

As part of SMS implementation, Valley Metro will be conducting the following activities:

- Conduct a thorough review of all current general staff categories (administrative, driver, supervisor, mechanic, maintenance, etc.) and the respective staff safety related responsibilities.
- Assess the training requirements spelled out in 49 CFR Part 672 and the various courses required for different positions. (Valley Metro is not subject to the requirements under 49 CFR Part 672 but will review the training requirements to understand what training is being required of other larger agencies in the event these trainings might be useful).
- Assess the training material available on the FTA PTASP Technical Assistance Center website.

- Review other training material available from industry sources such as the Community Transportation Association of America and the American Public Transportation Association websites.
- Develop a set of competencies and trainings required to meet the safety related activities for each general staff category.
- Develop expectations for ongoing safety training and safety meeting attendance.
- Develop a training matrix to track progress on individuals and groups within the organization.
- Adjust job notices associated with general staff categories to ensure that new personnel understand the safety related competencies and training needs and the safety related responsibilities of the job.
- Include refresher training in all trainings and apply it to agency personnel and contractors.

### II. Safety Communication – 673.29(b)

Valley Metro regularly communicates safety and safety performance information throughout our agency's organization that, at a minimum, conveys information on hazards and safety risks relevant to employees' roles and responsibilities and informs employees of safety actions taken in response to reports submitted through the ESRP (noted in Section 3.A.I) or other means.

Valley Metro reports any safety related information to the LRGVDC Board at their regular meetings and will begin including safety performance information. In addition, Valley Metro holds regularly scheduled meetings with drivers to ensure that any safety related information is passed along that would affect the execution of the drivers' duties. Valley Metro also posts safety related and other pertinent information in a common room for all employees.

Valley Metro will begin systematically collecting, cataloging, and, where appropriate, analyzing and reporting safety and performance information to all staff. To determine what information should be reported, how the information should be reported and to whom, Valley Metro will answer the following questions:

- What information does this individual need to do their job?
- How can we ensure the individual understands what is communicated?
- How can we ensure the individual understands what action must be taken as a result of the information?
- How can we ensure the information is accurate and kept up-to-date?
- Are there any privacy or security concerns to consider when sharing information? If so, what should we do to address these concerns?

In addition, Valley Metro will review our current communications strategies and determine whether others are needed. As part of this effort, Valley Metro has conducted, and will continue to conduct, a Safety Culture Survey to understand how safety is perceived in the workplace and what areas Valley Metro should be addressing to fully implement a safety culture at our agency.

# **5. APPENDIX A**

#### TABLE 8: PTASP SUPPORTING DOCUMENTS

File Name	Revision Date	Document Name	Document Owner
DOC082119-001.pdf	7/29/2004 (Safety Plan)	Transit Services Safety Plan	LRGVDC
		TAM Plan	LRGVDC
		SRTP (placeholder)	LRGVDC
		LRTP (placeholder)	LRGVDC
		Transit Development Plan (placeholder)	LRGVDC
	7/27/2016 (Transit Service Policy)	Transit Service Policy	LRGVDC
		Service Standard Guidelines	LRGVDC
		Training Program	LRGVDC
DOC082119-002.pdf		Appendices to the Personnel Policy Manual	LRGVDC
DOC082119-003.pdf	3/27/2013	LRGVDC Personnel Policy Manual	LRGVDC
DOC082119-004.pdf		Operation Procedures	LRGVDC
DOC082119-005.pdf	5/24/2017	LRGVDC Transit Services Department Maintenance Program Vehicle Maintenance Policy and Facility Maintenance Plan	LRGVDC
DOC082119-006.pdf	2/1/2017	Lower Rio Grande Valley Development Council Procurement Policy	LRGVDC
DOC082119-007.pdf		Appendices Including: Appendix B-2 Appendix C	LRGVDC
DOC111419.pdf		Attachment - A LRGVDC Building Maintenance	LRGVDC

### A. Glossary of Terms

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 transit vehicles; an evacuation for life safety reasons; at any location, at any time, whatever the cause.

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

**Agency Leadership and Executive Management:** are those members of agency leadership or executive management (other than an Accountable Executive, CSO, or SMS Executive) who have authorities or responsibilities for day-to-day implementation and operation of an agency's SMS.

**Chief Safety Officer (CSO):** 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 CSO may not serve in other operational or maintenance capacity, unless the CSO 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.

**Corrective Maintenance**: specific, unscheduled maintenance typically performed to identify, isolate, and rectify a condition or fault so that the failed asset or asset component can be restored to a safe operational condition within the tolerances or limits established for in-service operations.

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

**Event:** means an accident, incident, or occurrence.

**Federal Transit Administration (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.

**Key staff:** means a group of staff or committees to support the Accountable Executive, CSO, or SMS Executive in developing, implementing, and operating the agency's SMS.

**Major Mechanical Failures:** means failures caused by vehicle malfunctions or subpar vehicle condition which requires that the vehicle be pulled from service.

**National Public Transportation Safety Plan (NSP):** 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).

**Passenger:** means a person, other than an operator, who is on board, boarding, or alighting from a vehicle on a public transportation system for the purpose of travel.

**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.

**Preventative Maintenance**: means regular, scheduled, and/or recurring maintenance of assets (equipment and facilities) as required by manufacturer or vendor requirements, typically for the purpose of maintaining assets in satisfactory operating condition. Preventative maintenance is conducted by providing for systematic inspection, detection, and correction of anticipated failures either before they occur or before they develop into major defects. Preventative maintenance is maintenance, including tests, measurements, adjustments, and parts replacement, performed specifically to prevent faults from occurring. The primary goal of preventative maintenance is to avoid or mitigate the consequences of failure of equipment.

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

**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.

**Road Calls**: means specific, unscheduled maintenance requiring either the emergency repair or service of a piece of equipment in the field or the towing of the unit to the garage or shop.

**Safety Assurance (SA):** means the process within a transit agency's SMS that functions to ensure the implementation and effectiveness of safety risk mitigation and ensures that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

**Safety Management Policy (SMP):** means a transit agency's documented commitment to safety, which defines the transit agency's safety objectives and the accountabilities and responsibilities of the agency's employees regarding safety.

**Safety Management System (SMS):** means the formal, top-down, data-driven, 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 CSO or an equivalent.

Safety Objective: means a general goal or desired outcome related to safety.

**Safety Performance:** means an organization's safety effectiveness and efficiency, as defined by safety performance indicators and targets, measured against the organization's safety objectives.

**Safety Performance Indicator:** means a data-driven, quantifiable parameter used for monitoring and assessing safety performance.

**Safety 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.

**Safety Performance Monitoring:** means activities aimed at the quantification of an organization's safety effectiveness and efficiency during service delivery operations, through a combination of safety performance indicators and SPTs.

**Safety Performance Target (SPT):** means a quantifiable level of performance or condition, expressed as a value for a given performance measure, achieved over a specified timeframe related to safety management activities.

**Safety Promotion (SP):** means a combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.

**Safety Risk:** means the assessed probability and severity of the potential consequence(s) of a hazard, using as reference the worst foreseeable, but credible, outcome.

**Safety Risk Assessment:** means the formal activity whereby a transit agency determines SRM priorities by establishing the significance or value of its safety risks.

**Safety Risk Management (SRM):** means a process within a transit agency's Safety Plan for identifying hazards, assessing the hazards, and mitigating safety risk.

**Safety Risk Mitigation:** means the activities whereby a public transportation agency controls the probability or severity of the potential consequences of hazards.

**Safety Risk Probability:** means the likelihood that a consequence might occur, taking as reference the worst foreseeable, but credible, condition.

**Safety Risk Severity:** means the anticipated effects of a consequence, should the consequence materialize, taking as reference the worst foreseeable, but credible, condition.

Serious Injury: means any injury which:

- Requires hospitalization for more than 48 hours, commencing within seven days from the date that the injury was received.
- Results in a fracture of any bone (except simple fractures of fingers, toes, or nose).
- Causes severe hemorrhages, nerve, muscle, or tendon damage.
- Involves any internal organ; or
- 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 subrecipient 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, or the Territories of 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 (TAM) Plan** means the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR part 625.

**Vehicle Revenue Miles (VRM):** means the miles that vehicles are scheduled to or actually travel while in revenue service. Vehicle revenue miles include layover/recovery time and exclude deadhead; operator training; vehicle maintenance testing; and school bus and charter services.

### **B.** Additional Acronyms Used

ASP: Agency Safety Plan
dba: doing business as
EMP: Emergency Medical Personnel
ESRP: Employee Safety Reporting Program

FAST Act: Fixing America's Surface Transportation Act
LRGVDC: Lower Rio Grande Valley Development Council
MAP-21: Moving Ahead for Progress in the 21<sup>st</sup> Century Act
MOU: Memorandum of Understanding
MPO: Metropolitan Planning Organization
NTD: National Transit Database
SOP: Standard Operating Procedure
TxDOT: Texas Department of Transportation

# 6. APPENDIX B

## A. Board Minutes or Resolution

Place here