



CAPITAL DISTRICT TRANSPORTATION AUTHORITY

Public Transportation Agency Safety Plan (PTASP)

June 2020

Introduction

On July 19, 2018, the FTA published the *Public Transportation Agency Safety Plan Final Rule* which requires operators of public transportation systems that receive federal funds under FTA's Urbanized Area Formula Grants to develop safety plans that include the processes and procedures to implement Safety Management Systems (SMS). On July 19, 2019 the ruling took effect.

This plan will be used by the Capital District Transportation Authority as a guide to strengthen the current safety processes in place, while meeting the new regulations set forth in 49 CFR Part 673 of the federal guidelines.

The Public Transportation Agency Safety Plan (PTASP) calls for a formal process to communicate and manage safety from the highest level of management. The updated plan will guide the agency in safety risk management, safety assurance and communication and promoting safety within the organization. There will be an annual review of the plan to review the safety performance measures and determine improvements that may be needed to improve the organizational safety targets.

Agency Background

The Capital District Transportation Authority (CDTA) is the premier mobility provider in the Capital Region, providing local, paratransit, express, commuter and bus rapid transit services across its four-county, 2300 square-mile service area. CDTA also operates a regional bike share program, provides microtransit services, and has introduced electric buses to its fleet. CDTA owns and operates the Rensselaer Rail and Saratoga Springs Train Stations.

The Authority consists of a 10-member board, appointed by the Governor and confirmed by the State Senate. The enabling legislation was modified in 2009 to include a non-voting member representing labor. All policy decisions rest with this board and implemented by the Chief Executive Officer.

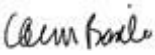
The Capital District Transportation Authority operates in Albany, Rensselaer, Saratoga, and Schenectady Counties. We work daily to meet the mobility needs within the Capital Region. There are 50 routes and more than 2600 stops within the system providing service to more than 16 million passengers a year.

Using our Transit Development Plan as a guide, we have dramatically improved our service network, reduced operating costs, and sharpened our community image. This includes innovative projects like Upstate New York's first Bus Rapid Transit service, Universal Access program, a regional bike share program (CDPHP *Cycle!*), microtransit service (*FLEX*) and the first property in upstate New York to introduce electric buses to its fleet.

Transit Agency Information

Transit Agency Name	Capital District Transportation Plan		
Transit Agency Address	110 Watervliet Avenue Albany, NY 12206		
Name and Title of Accountable Executive	Carm Basile, Chief Executive Officer		
Name of Chief Safety Officer or SMS Executive	Michael Collins, Vice President of Finance and Administration		
Mode(s) of Service Covered by This Plan	Bus Commuter Bus Demand Response (Paratransit) Demand Response – Taxi (Paratransit)	List All FTA Funding Types (e.g., 5307, 5337, 5339)	5307 5311 5339
Mode(s) of Service Provided by the Transit Agency (Directly operated or contracted service)	Bus Commuter Bus Demand Response (Paratransit) Demand Response – Taxi (Paratransit) Vanpool		
Does the agency provide transit services on behalf of another transit agency or entity?	No	Description of Arrangement(s)	N/A
Name and Address of Transit Agency(ies) or Entity(ies) for Which Service Is Provided	N/A		

Plan Development, Approval, and Updates

Name of Entity That Drafted This Plan	Rich Cordero, Manager of Safety & Training	
Signature by the Accountable Executive	Signature of Accountable Executive	Date of Signature
	 Carm Basile Chief Executive Officer	6/24/2020
Approval by the Board of Directors or an Equivalent Authority	Name of Individual/Entity That Approved This Plan	Date of Approval
	Capital District Transportation Authority	6/24/2020
	Relevant Documentation (Title and Location)	
	Board Resolution No. 26–2020	
A copy of all resolutions passed by the Board of Directors of the Capital District Transportation Authority can be found online at www.cdta.org . The original copy is maintained on file with the Manager of Safety and Training.		

Version Number and Updates			
<i>Record the complete history of successive versions of this plan.</i>			
Version Number	Section/Pages Affected	Reason for Change	Date Issued
1		Board Approved No.26-2020	June,24,2020
Annual Review and Update of the Agency Safety Plan			
Describe the process and timeline for conducting an annual review and update of the ASP.			
<p>The plan will be reviewed and updated in June of each year by the Manager of Safety and Training at a mandatory annual safety meeting. All department heads will attend this annual review and will be responsible for reporting on safety objectives and performance targets. Any new implemented policies and procedures will be reviewed for their effectiveness. The agency’s ability to meet performance targets will also be presented, and the need to modify performance targets for the coming year will be considered. Any updates to the plan will be reviewed and approved by the Chief Executive Officer and the Board of Directors.</p> <p>All versions of the plan must be kept on file for no less then (3) years as required by the FTA and kept available for no less than seven (7) years as required by CDTA’s record retention process.</p> <p>Any changes made to the Safety Plan will be distributed for all employees to review after approval is made by the CEO and the Board of Directors. The Chief Safety Officer will draft a notice to all Employees and Managers listing the updates to the plan. The notice will be communicated through the communication channels listed in this plan.</p>			

Safety Performance Targets

Safety Performance Targets							
<i>Specify performance targets based on the safety performance measures established under the National Public Transportation Safety Plan.</i>							
Mode of Transit Service	Fatalities (Total)	Fatalities (Rate)	Injuries (Total)	Injuries (Rate)	Safety Events (Total)	Safety Events (Rate)	System Reliability
Bus	0	0	54	7.0	49	6.3	17,000
Commuter Bus	0	0	2	6.9	3	10.4	70,000
Demand Response (Paratransit)	0	0	3	2.7	3	2.7	46,000
Demand Response – Taxi (Paratransit)	0	0	1	0.7	1	0.7	0
Total	0	0	60	6.2	56	5.1	23,275

Safety Performance Target Coordination		
<i>Describe the coordination with the State and Metropolitan Planning Organization(s) (MPO) in the selection of State and MPO safety performance targets.</i>		
<p>The regional MPO for the Albany, NY area is the Capital District Transportation Committee (CDTC) and overall transit safety for New York State is the responsibility of the Department of Transportation (NYSDOT). CDTA, CDTC, and NYSDOT are partners on many projects and initiatives related to the regional transportation network – including safety of the transit system. There is close and ongoing coordination and correspondence between the three entities. CDTA and NYSDOT are members of CDTC’s Planning Committee, Policy Board, and its Administrative & Financial (A&F) Standing Subcommittee. CDTA is also the host agency for CDTC.</p> <p>The Manager of Safety & Training provides a copy of the ASP to CDTC, NYSDOT Region 1, and the Public Transportation Safety Board. This includes the description of the Safety Performance Targets described in the ASP. The ASP and performance targets have been adopted by the MPO.</p>		
Targets Transmitted to the State	State Entity Name	Date Targets Transmitted
	New York State Department of Transportation – Public Transportation Safety Board	06/24/2020
Targets Transmitted to the Metropolitan Planning Organization(s)	Metropolitan Planning Organization Name	Date Targets Transmitted
	Capital District Transportation Committee	06/24/2020

Safety Management Policy

Safety Management Policy Statement

Use the written statement of safety management policy, including safety objectives.

Policy Statement

CDTA's leadership and Board of Directors are committed to the safety of its employees and customers and promoting a culture of safety. The Chief Executive Officer is ultimately responsible for the safety throughout all aspects of CDTA's operation. That responsibility includes ensuring the proper personnel and material resources are available to implement safety policies and procedures and sufficient and appropriate monitoring and reporting systems are in place. CDTA recognizes its responsibility to provide a culture of safety through Safety Risk Management, Safety Assurance, and Safety Promotion and Communication.

To ensure these measures are met, subject matter experts have been identified and assigned to roles in which they can further the culture of safety within all departments. Those responsible for safety have been provided the resources and authority necessary to obtain those goals. CDTA trains all employees to promote safe working conditions and provide them the appropriate forum needed to communicate their ideas to continue building a better workplace driven by a culture of safety. It is the responsibility of all managers and supervisors to administer proactive and reactive accident prevention measures that benefit the transit system, its employees, and the public.

It is the responsibility of all employees to be vigilant of safety hazards, to work safely, and to be cognizant of CDTA's safety rules. As the frontline workers of the agency, all employees are encouraged to report any and all safety hazards identified, either on the road or within our facilities. This can be done through direct reporting to supervisors, or anonymously, through our employee reporting process. Employees will not be disciplined for reporting in good faith any safety concern that is not attributable to the employee's own action or inaction. The Authority, along with the support of the Amalgamated Transit Union (ATU), will not allow repercussions by management or the leadership of the ATU, in the event an employee's report verifies a hazardous condition due to employee negligence. In the event an investigation reveals carelessness on the part of the employee or the employee filing the report, the actions of the unsafe employee may be reason for discipline and/or remedial training.

Upon receiving a report of a hazard, a review will be initiated by the appropriate personnel. If action is deemed appropriate, CDTA will work in good faith to implement risk mitigation measures that are appropriate and timely. Action taken by the Authority will be promptly communicated to all employees. CDTA's regular employee training and retraining program will aim to keep staff up to date with the latest policies and operational procedures. Further, CDTA has zero tolerance for employees who may put customers and employees at undue risk. Employees with an unacceptable safety records will be counseled and may be subject to the disciplinary process.

CDTA exists to provide, safe and dependable transportation services at a reasonable cost. No function will ever compromise safety. In this regard, the planning and execution of any job or project must include full recognition of the risks involved and the best methods for addressing

and minimizing them. Our collective ability to work safely has a direct effect on the overall efficiency of our operation. Operating in an unsafe manner not only could negatively impact an employee's well-being, but can also cast a negative light on the organization to our community partners and the general public that relies on our services.

Carm Basile - Chief Executive Officer

Safety Management Policy Communication

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

The SMS principles and plan was approved and adopted by the Board of Directors at its June 24, 2020 meeting with Board Resolution No. 26-2020

The Safety Management Policy is distributed to every active employee in a number of ways included but not limited to, email, person-to-person distribution and posted on bulletin boards in key communication areas. This policy is included in the employee handbooks provided to all new employees, and new employees are expected to review and certify that they acknowledge and comply with all standards and practices.

Future changes to the safety policy will be communicated to all employees via public posting and email communication.

Each CDTA Division has its own safety committee comprised of Transportation, Maintenance, and Management staff. These committees meet regularly to discuss safety issues, recent incidents and to consider the need for mitigation measures. The responsibilities for safety of each department are defined in Section 5.2 of the Safety and Security Policy and Plan. It is the responsibility of these committee members to ensure the safety policy is promoted and readily available for review upon request.

Authorities, Accountabilities, and Responsibilities

Describe the role of the following individuals for the development and management of the transit agency's Safety Management System (SMS).

<p>Accountable Executive</p>	<p><u>Chief Executive Officer</u> (Carm Basile) Reports directly to the Board of Directors and serves as the accountable executive pertaining to the overall execution of the Agency Safety Plan and the Transit Asset Management Plan. It is the responsibility of the CEO to supervise all administrative functions of the authority which includes carrying out the Public Transportation Agency Safety Plan of a public transportation agency; for carrying out the agency's Transit Asset Management Plan; and has direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, and the agency's Transit Asset Management Plan. The CEO also ensures that the SMS is effectively implemented through oversight and reports by department managers presented at the annual safety meeting and through other routine meetings throughout the year. The CEO is also responsible for ensuring that the SMS effectively implemented be delegation to qualified staff hired and/or appointed to the appropriate positions to effectively oversee the safety plan. The CEO's oversight and direction of personnel and capital ensures appropriate action is taken when needed and that action is in line with the principles of the Agency Safety Plan.</p>
<p>Chief Safety Officer or SMS Executive</p>	<p><u>Vice President of Finance and Administration</u> (Michael Collins) Serves as the Chief Safety Officer reporting directly to the Chief Executive Officer. This position is responsible for directing and managing the organization's finances, safety, risk management, and human resources. Departmental roles and responsibilities include managing procurement, payroll, grants administration, human resource development, labor relations and collective bargaining.</p>
<p>Agency Leadership & Executive Management</p>	<p><u>Vice President of Operations</u> (Lance Zarcone) Reports directly to the Chief Executive Officer. The VP of Operations is responsible for the management of all transportation and maintenance activities of all divisions (Albany, Schenectady, Troy) and STAR (paratransit service) to ensure that all processes in the SMS along with other policies and procedures are properly executed by both the Transportation and Maintenance Departments.</p> <p><u>Vice President of Planning & Infrastructure</u> (Chris Desany) Reports directly to the Chief Executive Officer. The position directs and manages the organization's strategic planning, service development, information technology and facilities programs. Departmental roles and responsibilities include managing strategic and service planning, scheduling, project management, system administration, business process improvement, and physical plant infrastructure.</p> <p><u>General Counsel</u> (Amanda Avery) Reports directly to the Chief Executive Officer. The General Counsel is responsible for providing legal advice to management on issues such as contracts, procurement, employment law and ensures compliance with all Federal, State and local laws and regulations.</p>

Key Staff	<p><u>Manager of Safety & Training (Rich Cordero)</u> Reports to the Director of Human Resources. Primary responsibility for identifying safety improvements and administering safety programs.</p> <ul style="list-style-type: none"> • Ensures adherence to applicable statutes and rules. • Regular review of all operators' safety records to identify candidates for remedial training. • Review and establish determinations of preventability for all accidents. Request follow-up training for operators having preventable accidents or deteriorating safety records. Requests may be for remedial, refresher, on-board observations, or any other pertinent individualized training. • Prepare monthly safety report, with recommendations for improving performance; also includes update of divisional goals and progress. • Provides direction and oversight to Divisional Safety Committees. • Hire, train, supervise and direct training staff. • Manages the Safety Awards Program. • Manages the Drug and Alcohol Program and DMV 19-A program • Inspect facilities and monitors operating practices, including regular field safety patrols. • Liaison with Public Transportation Safety Board. <p>Safety Supervisors (multiple) – reports to the Manager of Safety & Training.</p> <ul style="list-style-type: none"> • Train new bus operators and facilitate safety refresher and remedial training for experienced bus operators. • Assist the Manager of Safety in the development of new programs and revision of existing programs for bus operators. • Periodic field observations to check operator compliance with safety rules. Assist in periodic building and safe working conditions inspections. • Investigate accidents and submit reports to Manager of Safety. Perform all 19-A Requirements for compliance. <p><u>Director of Human Resources (Kelli Schreivogl)</u> Reports to the VP of Finance and Administration - Chief Safety Officer. Responsible for oversight of the safety roles and responsibilities of the Manager of Safety. Including but not limited to; annual revisions of SMS by ensuring that departmental responsibilities are updated in the plan and the approval process is followed, ensuring that the Safety Department staff has been extensively trained in the presentation of the Transportation Safety Institute's (TSI) Bus Operator Training Program and have attended the TSI Basic Accident Investigation Course. Ensure the Drug and Alcohol Policy and Federal regulations in 49 CFR Part 40 and Part 655 are administered properly.</p>
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Key Staff	<p><u>Director of Planning</u> (Ross Farrell) Reports to the VP of Planning & Infrastructure. This position is responsible for Planning and Scheduling preliminary design for capital projects, route patterns and schedules, and strategic / long-term initiatives. They coordinate with the Manager of Safety to make safety recommendations for new service and to ensure that our schedules meet safety guidelines. Works closely with local municipalities so that our service is being taken into account for all major construction projects in the counties in which we serve.</p> <p><u>Director of Facilities</u> (Jeremy Smith) Reports to the VP of Planning and Infrastructure has overall responsibility for the management of the Facilities Department whose primary function is to provide safe, effective and efficient maintenance, improvement, and operation of all CDTA buildings and grounds. Facilities include but are not limited to, office structures, vehicle storage and maintenance facilities, trains stations, surface parking and structures (facility related and park-and-ride), bus stops, shelters and terminals. Collaborates with the Director of Planning, Director of Risk Management, and Manager of Safety as it relates to all projects.</p> <p><u>Transportation & Maintenance Superintendents</u> – report to VP of Operations. They are responsible for overseeing the day to day operations within their assigned division. The Division Superintendent ensures compliance with all policies and procedures and makes sure that all safety standards from the Agency Safety Plan are carried out. The Superintendents are directly responsible for the Transportation Supervisors and Maintenance Foreman who are tasked with performing Quality Assurance checks on our vehicles. This is one way that we can verify the effectiveness of the System Safety Plan.</p> <p><u>Drivers’ Forums and Mechanic Forums</u>: CDTA holds quarterly meetings with drivers/supervisors and mechanics/foreman to discuss any upcoming changes to service, policies, or procedures. CDTA will include an agenda item dedicated to safety allowing attendees the opportunity to inform staff of potential hazards and for VP of Operations, superintendents, and Manager of Safety to reinforce safety protocols.</p>
<p>Employee Safety Reporting Program</p> <p><i>Describe the process and protections for employees to report safety conditions to senior management. Describe employee behaviors that may result in disciplinary action (and therefore, are excluded from protection).</i></p>	
<p>CDTA has a system in place that allows for operators, mechanics, and all other employees to report incidents, accidents, hazards and other information that may require attention.</p> <p>Employees can report hazardous conditions using the following reporting tools:</p> <ul style="list-style-type: none"> • Operators report conditions directly to Central Communications (radio dispatcher) • Mechanics report conditions directly to their foreman • File a report using CDTA’s reporting software – “ACT” • Employee forums – If it is a low risk concern • Safety Committee – low risk concerns • All other employees report conditions directly to any supervisor, manager, or director. <p>Immediate Response</p> <p>Below is a list of examples where safety concerns may be reported for an immediate</p>	

response or may require follow up by various departments within the organization.

- Mechanical issues – brakes, steering, fumes, or anything that may interfere with the operation of the vehicle.
- Shelter/Stop – broken glass in a shelter, interference at a stop such as construction, snowbanks or anything that may require the stop to be temporarily or permanently relocated.
- Policies and procedures that do not work as intended that may not be eliminating safety concerns or could be causing higher risk.
- Events that senior managers might not otherwise know about (for example, near misses)
- Information about why a safety event occurred (for example, radio communication challenges).

The Safety and Training department reviews reports daily. Recommendations are made to address safety concerns issues with support of operations and the direct oversight and guidance from the Chief Safety officer. All discussions regarding safety concerns will be brought up and discussed in Safety Committees and Employee forums. If the employee submitting a report provides their name, the Chief Safety Officer or other appropriate senior staff member can follow up with that employee directly.

All safety concerns are logged in a database with a date and timeframe of when the issue should be resolved.

Employees will not be disciplined for reporting in good faith any safety concern that is not attributable to the employee's own action or inaction. The Authority, along with the support of the ATU, will not allow there to be any discipline initiated by management or the leadership of the ATU, in the event there is found there was negligence of the authority or a member of the ATU.

In the event an investigation reveals carelessness on the part of an employee or the employee filing the report, the actions of the unsafe employee may be reason for discipline and/or remedial training

Safety Risk Management

Safety Risk Management Process

Describe the Safety Risk Management process, including:

- *Safety Hazard Identification: The methods or processes to identify hazards and consequences of the hazards.*
- *Safety Risk Assessment: The methods or processes to assess the safety risks associated with identified safety hazards.*
- *Safety Risk Mitigation: The methods or processes to identify mitigations or strategies necessary as a result of safety risk assessment.*

Safety Risk Management Process

CDTA has introduced a process to conduct Safety Risk Management among existing operations as well as when implementing changes to the service, street amenities, and its facilities. The purpose is to form a consistent process that defines the terminology that should be used and create a formula that can be used as a guide to identify hazards and the potential consequences. Safety Risk Management provides the CDTA a process to quantify a potential safety risk and then develop a response prior to the hazard escalating into an incident.

The Chief Safety Officer or designee will verify whether the processes for identifying risk is helping to improve systems such as our operations and maintenance; facilities and vehicles; and personnel recruitment, training, and supervision.

CDTA will use the following terminology when referring to Safety Risk Management,

- **Hazard** – Any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure belonging to CDTA; or damage to the environment.
- **Consequence** – An effect of a hazard involving injury, illness, death, or damage to CDTA property or the environment.
- **Event** – Any accident, incident, or occurrence
- **Risk** – Composite of predicted severity and likelihood of the potential effect of a hazard.
- **Risk Mitigation** – Method(s) to eliminate or reduce the effects of hazards.

Safety Hazard Identification

When identifying hazards and the potential consequences, the Safety department uses various sources. These sources include:

- Safety analyses conducted during periodic facility inspections
- Review of vehicle camera footage after a report is filed
- Review of monthly performance data and safety performance targets
- Supervisor observations
- Maintenance reports
- Pre/post trip inspection reports which may indicate defect trends within individual vehicles
- Customer comments
- Safety committees and employee forums
- Safety audits by the internal and external auditors of compliance with the AGS, Maintenance Inspections, and Security procedures
- External safety data sources may include architectural, engineering, or surveyors site drawings that may be provided to Safety for an evaluation of potential safety hazards.

- Investigations into safety events, incidents, and occurrences
- Federal Transit Administration (FTA) and other oversight authorities review

Safety Risk Assessment

All hazards identified are reviewed by the Safety Department including the Manager of Safety and Safety Supervisors to determine the level of risk. Risk level is divided into three categories – High, Medium, or Low which are defined as:

- High hazard ratings will be considered unacceptable and require immediate action from CDTA to mitigate the safety risk,
- Medium hazard ratings will be considered undesirable and require CDTA’s Chief Safety Officer or designee to make a decision regarding their acceptability, and
- Low hazard ratings may be accepted by the Manager of Safety without additional review.

These risk classifications are awarded based on a consideration of likelihood for an incident to occur due to a hazard and the potential negative consequences of that incident.

Safety Risk Mitigation – Mitigation of hazards is determined based on the level of risk and the nature of the hazard. For example, hazards with higher risk are dealt with immediately and the response can be as substantial as eliminating bus stops that have become unsafe, stopping service outright, or limiting areas for operations in bus garages.

As many identified hazards are of a lower risk, the Safety Department in conjunction with related departments develop solutions that will be long-term and impactful. This can be through a new policy or procedure (ex. XXXX) or by constructing new infrastructure (ex. install sidewalk and crosswalk at bus stop that requires improved accessibility).

The intent of any mitigation effort is to limit the hazard and prevent any future accidents or incidents.

For new projects, risk mitigation is proactive instead of reactive. For example, the Safety Department reviews design documents of capital projects led by the Planning and Facility Department and the Manager of Safety provides a list of concerns or potential safety risks. Designs are then updated to mitigate these risks during the planning phase and prior to construction.

Risk Assessment Matrix

CDTA has adopted a process to rank hazards by its severity. The ranking will be used to estimate how severe a consequence may be from the result of the hazard. It is recommended that the scale below be used when implementing changes to, or creating new routes, schedules, processes and anything that may pertain to the operation.

The scales are used to determine;

- **Severity of the Hazard** – This list severity types, the level of severity, and the mishap

results

- **Exposure to the Hazard** – Used to identify the probability of level.
- **Risk Assessment Value** – By combining table 1 and 2, the value table guides you to determining the level of risk and determine what level of action needs to be taken.

Table 1: Definition of Severity

SEVERITY CATEGORIES		
Description	Severity Category	Mishap Result Criteria
Catastrophic	1	Could result in one or more of the following: death, permanent total disability, irreversible significant environmental impact, or monetary loss equal to or exceeding \$10M.
Critical	2	Could result in one or more of the following: permanent partial disability, injuries or occupational illness that may result in hospitalization of at least three personnel, reversible significant environmental impact, or monetary loss equal to or exceeding \$1M but less than \$10M.
Marginal	3	Could result in one or more of the following: injury or occupational illness resulting in one or more lost work day(s), reversible moderate environmental impact, or monetary loss equal to or exceeding \$100K but less than \$1M.
Negligible	4	Could result in one or more of the following: injury or occupational illness not resulting in a lost work day, minimal environmental impact, or monetary loss less than \$100K.

Table 2: Definition of Exposure

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

Table 3: Risk Assessment Value

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

The SRM process will be the responsibility of the Chief Safety Officer and Safety Department. This will promote consistency in the risk evaluations. Review by safety subject matter experts will increase the quality of risk measures and implementation of appropriate action.

Safety Risk Mitigation

After a level of risk is determined for a hazard, CDTA reduces that risk by implementing mitigation measures designed and intended to reduce the probability of occurrence and/or severity of consequences. Once a new operational element or procedure is in place, short term monitoring will evaluate its effectiveness and identify any negative safety hazards it may have created unintentionally. Long term monitoring will evaluate the mitigation measure effectiveness by considering changes to measured risk.

Safety Assurance

Safety Performance Monitoring and Measurement
<i>Describe activities to monitor the system for compliance with procedures for operations and maintenance.</i>

The following are activities conducted to ensure safety compliance throughout the CDTA transit system:

Internal Audits – CDTA has an internal auditor that is responsible for evaluating systems established to ensure compliance with the policies, plans, procedures, laws, and regulations which could impact the organization. The audit process is used to ascertain whether or not specific operations or programs established are meeting the goals and objectives as planned.

Maintenance Audits– Extensive audits of maintenance are conducted by an external firm regularly to monitor performance and recommend improvements. Currently the audit is performed by Transportation Resource Center, based in Oviedo Florida. The audit consists of:

Inspection of 30% of the fleet (70 buses) using State and Federal standards. Defects are broken out into two types of defects.

- **A Defect** – An “A” defect requires immediate attention and repair. Once identified, it would keep a bus from returning to service if not corrected. “A” defects include inadequate brakes and tire tread, non-functioning turn signals and major oil or fuel leaks.
- **B Defect** – A “B” defect requires attention at or before the vehicles’ next service inspection (it would not necessarily require a bus to be held from service). Examples of a B defect includes loose grab rails, exterior damage, leaky windows and minor oil leaks.

A separate group of vehicles are selected for records review.

The facilities are reviewed for the conditions of the maintenance shop, cleanliness, and adherence to the safety standards in the shop.

Field Observations / Route Checks – Transportation Supervisors and Safety Supervisors are used to verify processes on the streets/roadways are being executed properly with quality assurance checks when observing service operations. These observations monitor a variety of areas such as driver conduct, bus speeds, turning movements, boarding/alighting passengers, securing bus during layovers.

Camera Observations: The process to pull bus video becomes available when an incident is logged. All live and historic data is available for review regardless of an incident. Real time information for the facilities is available in the dispatcher locations to review.

Employee Reporting – Employees have a process to communicate safety hazards through an electronic safety reporting system, through supervision or employee forums. All safety concerns require an inspection and follow up by field supervisors with the assistance of safety.

Departmental Goals – Through the performance review process, department heads task staff to ensure the safety responsibilities covered in the safety plan and other operating procedures are followed. Adherence to this task is part of an employee’s performance evaluation.

Information Technology – Mobile Statics data provide by the INIT CAD/AVL system is used to verify that targets are met, addressing issues pertaining to service, and guide the Chief Safety Officers in determining where safety hazards may need to be addressed to prevent an event from occurring.

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

With the new Intelligent Transportation Management System (ITMS) and in cooperation with the IT department, the Safety Department has created a driver excellence dashboard. This new system allows for the Chief Safety Officer to identify aggressive driving by using data to find trends. The data will help identify;

- *On time performance of a route due to aggressive driving*
- *Operator habits*
- *Up to date data pertaining to meeting safety targets*
- *Show high accident locations though its mapping module*

Data collected can be used to initiate an investigation and the hazard identification processes to used. In some

cases, the findings may require a change in routes, schedules, and/or processes.

Describe activities to conduct investigations of safety events, including the identification of causal factors.

CDTA has a process in place that requires an investigation for all accidents, incidents, and occurrences, as defined by FTA. During a safety event, a field supervisor is dispatched to investigate the event and collect all relevant information required. All available reports, witness statements, and videos are reviewed by the Safety Department.

The collected data is used to investigate if there is a pattern of accident types, locations or anything that may identify a causal factor. Once this investigation is completed a determination of preventability is made.

The Safety Department maintains all documented processes, investigations, determinations, and data reports that are filed. All files are maintained in accordance with CDTA's record retention policy.

The determination process of all accidents will follow the same process:

- All information is gathered pertaining to the accident; reports, pictures, video, and witness statements if available.
- Safety Supervisor does the initial investigation and makes a recommendation on preventability.
- Email is sent to the Superintendent(s) over seeing the employee to review, along with the Director of Transportation.
- Should there be any questions regarding the accident determination the Superintendent will reach out to the Manager of Safety to discuss. If it is agreed that the recommendation is not the right decision, then the change will be made to the recommendation in writing by the Chief Safety Officer or designee. The Chief Safety officer of designee will make the final decision of preventability when there is a disagreement. This will assure consistency between the division it's managers.
- If there is no objection, the recommendation will be final, and the Superintendent will notify the operator of the preventable determination.
- Discipline will be addressed as written in CDTA's progressive discipline processes.

In the event the employee does not agree with the determination of the accident, he or she will be allowed to submit a request for their accident to be reviewed by the Accident Review Board. The accident review board will consist of the following:

- Operations Superintendent that does not have direct oversight of employee
- Union Official that does not work in the division of the employee
- Outside official with direct knowledge of accident investigation. This is usually a police officer from various municipalities

All involved must receive training on the differences of fault vs. preventability. All parties must be impartial and come to a decision without any prejudice.

Any hazards that may be a contributing factor to the event are documented and will be addressed with the appropriate parties to avoid any risk of a future event.

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

The internal reporting of safety for the transit system is provided to the Board of Directors on a monthly basis as part of the Monthly Non-Financial Report at the Performance Monitoring/Audit Committee. Key Performance Indicators (KPIs) are continuously monitored and reported in order to observe trends of the SMS hazard mitigation efforts. These KPIs are compared to the prior months and the same month of a previous year to show trends. If there are substantial increases or decreases an explanation is provided to the board.

On a yearly basis, the Manager of Safety and the Chief Safety Officer provide a report and presentation to the Performance Monitoring/Audit Committee which provides an overview of the year, identification of system-wide safety issues, and how these will be addressed in the coming year.

Although infrequent, if a safety event is of a substantial nature, it will be discussed with the Board at the Committee Meeting level.

All safety concerns either reported by employees, the general public, or as a result of incidents are logged in a database. Subsequent mitigation actions implemented as a result are included with each entry. These are also classified as *open* or *closed*.

Management of Change

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

The transportation industry is continually advancing and with that advancement is the potential for new hazards that will impact safety performance. To address this, CDTA has given the Safety Department the authority to take a more proactive approach

New technologies and modes of transportation administered by CDTA may be operated in a way that is different from past practices. This requires CDTA to be flexible and change infrastructure and operations after a new service is implemented. The Safety Department and the team managing a specific project will monitor its operations to determine if any unforeseen safety issues arise.

The Safety Department collaborates on strategic planning efforts such as CDTA's Transit Development Plan (TDP). This ensures the Safety Department a hands-on approach to the direction of the organization and future projects and policies that may be implemented. This allows the Safety Department to flag any potential issues that may arise.

The Safety Department is co-author of sections of Project Management Plans (PMP's) for major capital projects such as the Washington-Western and River Corridor Bus Rapid Transit lines. The PMP's outline Safety & Security during construction and the role of the Safety Department in these projects.

CDTA has conducted major service changes over the past decade related to county-wide route restructurings, implementation of BRT lines, and other major increases/decreases of service. The Safety Department is a part of the planning process of these service changes to provide necessary feedback (and eventual approval or disapproval) of routings and stops of new bus lines. This early involvement allows concepts that would be determine as unsafe to not progress past the planning process and alternatives created to still meet customer travel needs.

The Safety Department works with the maintenance and I.T department' when procuring new vehicles, updating current bus builds, and introducing new programs that can be used to safely operate and manage the vehicle and the routes it is serving.

Continuous Improvement

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

Assessing Safety Performance

The following are processes for assessing safety performance:

- Monthly monitoring by the CDTA Board of Directors (detail on *page 8*)
- Data analysis of accidents by driver, by route, by stop, by geographic area, and by operating division. Focused monitoring allows anomalies to become apparent and related safety issues to be addressed.
- CDTA has embarked on a new program identifying Key Performance Indicators (KPIs) which will assist in monitoring nearly all operational activities. The KPIs include Total Accidents, Collisions, Non-Collisions, Preventable Accidents, and Non-Preventable Accidents. The frequency over time of these KPIs will be used to in the evaluation of hazard mitigation measures. Examples of the KPIs include:
 - Collisions: Vehicle operated by CDTA employee striking another vehicle, object, pedestrian, etc.
 - Non-Collisions – Safety Events
 - Preventable Accidents: Incident that occurred due to oversight by employee i.e. delayed routine maintenance causing malfunction to vehicle
 - Non-Preventable Accidents:
- Each CDTA division has its own safety committee comprised of Transportation, Maintenance, and Management staff. These committees meet regularly to discuss safety issues and any recent incidents. Division Superintendents are required to report on performance at the annual safety review meeting.

Accident Review Board – All accidents are investigated by the Accident Review Board. The ARB is comprised of a representative from the company; from the Union, and from an impartial outside agency, usually a Police Department. The representatives are selected from a pool of members based on availability and which division the employee works in.

The SRM process may result in implementation of changes to standard operating procedures within facilities or on the road. Changes will be communicated to employees via training and retraining. Significant changes may require immediate retraining of portions of the staff, while other changes will be included in regular employee training schedules (detailed further below).

CDTA also regularly communicates safety incidents and resulting changes to policy or practice via safety bulletins posted visibly in employee areas. These bulletins may contain the results of an investigation following an incident, lessons learned, and other important information. Employees are encouraged to review these bulletins on a regular basis.

Safety Promotion

Competencies and Training

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

All employees go through an onboarding process that is used to familiarize employees with the organization and prepares them for the position they will fill in the organization. The onboarding process includes training for all new employees and contractors. All senior level positions responsible for the oversight of the Agency Safety Plan must review the plan and work directly with the Chief Safety Officer to ensure they understand their role in the process. In addition to familiarizing themselves with the Agency Safety Plan, all employees hired to the positions listed below must also complete the following training:

Bus Operator

CDTA puts operators through a seven (7) week training program prior to being eligible to drive any route in the service. The trainees will be trained on defensive driving, customer service, and proper kneeler door use.

The Safety Department includes 8 total trainers with an average of 20 years of experience. Training classes are held 3-4 times per year depending on need for new operators. Refresher training is ongoing. When trainees are released to drive on their own a Supervisor is assigned to mentor the employee. The Supervisor is also responsible for ensuring that the trainee complies with all training. Operators are assigned to one of three divisions and assigned to a supervisor from their assigned division.

Material included is:

- TAPTCO - DEFENSIVE DRIVING
- LLLC DEFENSIVE DRIVING SYSTEM
- LOOK AHEAD – Advises operators to look far enough to understand the hazards they may be driving into.
- LOOK AROUND – Advises operators to move their head (and thus their eyes) to fully understand the situation around their bus.
- LEAVE ROOM – Advises operators to create space around their bus to provide more room for error.
- COMMUNICATE – Advises operators to use their directional and 4 ways in a predictable way to avoid accidents.
- Smith System – Five Keys
- KEY #1 - AIM HIGH IN STEERING
- This explains to driver when approaching hazardous locations, they should look at least 15 seconds ahead of the vehicle. In the city, look ahead 1-2 blocks, on the highway look

ahead one-quarter mile.

- **KEY #2 - GET THE BIG PICTURE**

- The environment around the driver's vehicle is constantly changing. Operators must always have a complete awareness of the hazards in & around their vehicle – “Get the Big Picture.” Establish a safe following distance allowing for the vehicle type, driver condition, weather and road conditions. Check their mirrors every 5 – 8 seconds when moving and monitor their blind areas closely before leaving from stopped positions.

- **KEY #3 - KEEP YOUR EYES MOVING**

- Your eyes are your primary defense in a constantly changing environment. You must have “active eyes” to identify all hazards in & around your vehicle – “Keep Your Eyes Moving.” Move your eyes at least every two (2) seconds. Don't allow your peripheral vision or awareness of important objects to diminish because of eye-holding distractions.

- **KEY #4 - LEAVE YOURSELF AN OUT**

- Operators are taught to always give additional space around their bus. They must create and maintain a “space cushion” around their vehicle at all time – “Leave Yourself an Out.” Manage the space cushion around the vehicle while moving, and prior to stopping. When you lose your space cushion, adjust your speed or position to regain it.

- **KEY #5 - MAKE SURE THEY SEE YOU**

- Operators are taught to clearly communicate their intentions before taking any action. Effective communication will reduce the possibility of an accident – “Make Sure They See You.” An operator should obtain eye contact as early as possible whenever danger is detected. When possible, avoid riding in the blind areas of other drivers.

- **SMITH SYSTEM VIDEOS**

- The following videos are used to train the five keys:
 - The Critical Point
 - Driving Distractions – “Are You Playing with a Full Deck?”
 - Outside the Box
 - Following Distance – “Resolving the Debate.”
 - Out of Harms Way
 - Intersections – “Among the Most Dangerous Places on Earth.”
- Safety Best Practices - Explains the importance of creating a safe working environment that balances the flaws in human nature and providing a reliable service.
- Preventing Driver Distractions – Addresses the many distractions that can lead to an accident.
- Pedestrian Awareness – Talks about the hazards that pedestrians pose to large vehicles.

- Pre-Trip Inspections – Emphasizes the importance of inspecting the bus every day before leaving the property. Merging – Points out the hazards when changing lanes.

Maintenance Employees

1. Release from Training
2. Acknowledgment Form for Prevention of Harassment in the Workplace
3. This Form (Acknowledgement of Training Checklist for New Hires)
4. Omnibus Transportation Testing Act Acknowledgement
5. Better Bus Procedures Final Wipe Down Evaluation (**Cleaners Only**)
6. Workplace Safety – Preventing Workplace injuries

CLEANERS AND CLEANER B ONLY: Are issued the below listed materials.

- Pre-trip Inspection Radio Procedures
- Service Island Procedures Lock-Out/Tag-Out Procedures
- Hotsy CDL-At discretion of management

HELPER ONLY:

- Module 1: Tool Use and Shop Equipment Use and Safety
- Module 2: Introduction to Mechanics
- Module 3: Basic Preventative Maintenance

2nd CLASS ONLY:

- Module 1: Tool Use and Shop Equipment Use and Safety
- Module 2: Basic Electric
- Module 3: PMI Procedures and Standards
- Module 4: Chassis
- Module 5: Engine/Transmission Basics
- Module 6: Diagnostic Equipment Use
- Module 7: ADA Systems
- Module 8: Basic HVAC

Operations Supervisor - Foreman

All employees promoted to the role of Supervisor must go through training in the following areas before they can be released. Training consists of:

Role of a Supervisor-Foreman

- Gives an overview of what the expectations are of a Supervisor/Foreman. This introduction is done by the Chief Executive Officer and the VP of Operations.

LEADERSHIP

- Defining Leadership
- Styles of Leadership
- Becoming a Leader

COACHING FOR SUCCESS

- Code of Conduct/ Suspension of Service
- Coaching Vs. Discipline
- Effective Coaching
- CDTA Discipline Process
- Background of Security at CDTA
- Security Procedures and Protocols
- Security Incident Review
- NIMS-100 Program Review

WORKPLACE SAFETY

- Background of Workplace Safety at CDTA
- On the Job Injury Statistics
- Supervisor Investigation of On the Job Accidents
- Web-Based Reporting/Photos
- Background of Maintenance Department Activities
- Discussion of Types and Risks of Bus Defects

- Troubleshooting High Risk Bus Defects on the Road
- Effective Management of Road Calls
- Utilizing Spear to assist in work management

QUALITY ASSURANCE

- Review of CDTA Comments Types and Frequency
- Supervisor's Role in Complaint Investigation
- Marketing and Customer Service
- Managing Personnel & Work Assignments
- Planning & Scheduling Work
- Performance Oversight
- Communication & Teamwork
- Scheduled vs. Unscheduled Work
- Maintenance & Performance Indicators
- "Driving" Maintenance
- Safety & Quality Control

COMMUNICATION & TEAMWORK

- Styles of Communication
- Communicating Clearly
- Teamwork
- Program Wrap Up

ACCIDENT/INCIDENT INVESTIGATION

- Accident Investigation

- Data Collection
- Accident Claim Tracking

- Accident Exercise

- Taking Witness Statements

DRUG & ALCOHOL POLICY

- Drug and Alcohol Procedures/ Forms

- Data Collection

- Reasonable Suspicion

Authority Staff

Through the evaluation process all levels of management are responsible for ensuring that safety is part of each employee's daily work function. Evaluations will be used to ensure compliance with all Authority and Departmental safety and security policies and procedures. An employee meeting expectation must:

- Exhibit a conscientious approach to identify safety compromises in the immediate working environment
- Take initiative to alleviate potential and existing hazards affecting self and other employees
- Promote all applicable safety aspects of the job responsibilities.

Contractors

- General Contractor must submit OSHA 10 safety training cards for each person working at the site and keep them up to date as new personnel are added.

- The Construction Management Consultant will ensure contractors have on site, at all times, at least one person skilled in safety and health procedures and familiar with State and Federal safety and health regulations, whose responsibility it will be to monitor methods and procedures. This person shall be deemed qualified by the Contractor/Subcontractor by virtue of training and experience, will attend the pre-construction meeting and will review and approve all safety plans and procedures the Contractor/Subcontractor will employ in the performance of the work.

- All workers on a project will be OSHA trained. The Construction Management Consultant must have a Health & Safety Plan on file in the Field Office and available to staff. Contractors and sub-contracts will be required to provide OSHA 10 cards and training certification to CDTA. The Construction Management Consultant will review

each worker's OSHA-10 card, photocopy and file with project records.

Safety Communication

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

Management's commitment to safety is outlined to all employees by their direct supervisors beginning on the first day of employment. The Safety Committees are intended to facilitate communication on safety-related matters between employees and the Chief Safety Officer. The employee reporting process is intended to facilitate the free exchange of information between all levels of the organization. Safety Incentive Awards are presented annually to those employees who meet safety standards established by the company.

Risk Management meets with all new operator classes and covers Security Incident Training, Radio Communications Training as it relates to life threatening situations, and Gang Violence Training. The balance of the material is covered by Training and Safety personnel. In addition to the initial training CDTA provides periodic security and emergency training to all employees.

CDTA also regularly communicates safety incidents and resulting changes to policy or practice via safety bulletins posted visibly in employee areas. These bulletins may contain the results of an investigation following an incident, lessons learned, and other important information. Employees are encouraged to review these bulletins on a regular basis.

Internal Communications use different tools to communicate with CDTA employees. Methods ranging from e-mails to employee mailings, PowerPoint presentations and internal advertising are some of the way's employees are informed of corporate initiatives. As the company moves forward and explores new ideas and technology, the Communications Department will continue to identify needs and best ways to address them.

COMMUNICATION TOOLS

1. **All User Email**- "All User" email covers all CDTA employees, except Operators and Maintenance employees. This should not be a primary communication tool when the content is focused on the Operations staff.
2. **Internal Campaigns**- Safety Campaigns are used to help promote a culture of safety within the organization. All internal campaigns must be created by the Chief Safety Officer in collaboration with the Director of Corporate Communications and the Marketing Department.
3. **PowerPoint Presentations** – PowerPoint presentations are used for CDTA's Board of

<p>Directors, Employee Forums, Training and other Stakeholder meetings.</p> <p>4. Digital Signage – Safety information can be posted to digital boards located throughout CDTA facilities and fixed route vehicles.</p> <p>5. Company Newsletter (iRide Express) – The company newsletter is produced five times a year (once a quarter and a special issue during the holiday season). It is used to communicate company news with employees and retirees. The Chief Safety Officer will work with operations and safety committee’s to get the content that will be used by the Director of Corporate Communications and Marketing.</p> <p>6. Everbridge – The Everbridge system is a mass notification system used to reach a large number of employees at one time regarding accidents, incidents, and some corporate events. The CDTA Transportation Department is the primary user of Everbridge. All content being sent for safety must be approved by the Director of Corporate Communications and sent by the Chief Safety Officer.</p> <p>7. Onboard Signage – Messages are programmed in the CAD/AVL system that allows for operators to communicate safety messages to the passengers through-out the trip as needed. In addition, safety messages are programmed to make announcements without operator involvement.</p>

Additional Information

<p>Supporting Documentation</p> <p><i>Include or reference documentation used to implement and carry out the ASP that are not included elsewhere in this Plan.</i></p>

Definitions of Special Terms Used in the ASP

Term	Definition

List of Acronyms Used in the ASP

Acronym	Word of Phrase
CDTC	Capital District Transportation Committee
CDTA	Capital District Transportation Authority

NYSDOT	New York State Department of Transportation
ARB	Accident Review Board
PTSB	Public Transit Safety Board (New York State)