Developing a Pandemic Virus Service Restoration Checklist

Abstract: This white paper covers the development of a service restoration checklist for transit agencies impacted by a pandemic virus.

Keywords: Contagious Virus Response Plan, Continuity of Operations Plan, coronavirus, COVID-19, essential service, pandemic virus, SARS-CoV-2, service reduction, service restoration, shutdown, transit agency

Summary: Given the outbreak and impacts of a pandemic virus, a Pandemic Virus Service Restoration Checklist (PVSRC) is intended to serve as a single reference to guide the development and restoration of transit service in the post-pandemic phase. The PVSRC will support the APTA Mobility Recovery & Restoration Task Force's efforts as it develops further guidance.

Scope and purpose: This white paper is designed to aid transit agencies in the development of a Pandemic Virus Service Restoration Checklist after a pandemic virus has spread to the degree that it has impacted a transit agency's ability to deliver normal service. It outlines the elements agencies might choose to include in their checklist and provides a format example. Transit agencies should determine the applicability of elements in this white paper based on their own system and community, and on their requirements, plans and policies. Transit agencies should note that in some cases, federal and/or state regulations govern portions of a transit system's operations, and those regulations take precedence over the best-practice guidelines offered in this white paper.

The PVSRC alone will not be a comprehensive list of actions to take after a pandemic viral outbreak. It is intended to cover extraordinary aspects specific to a pandemic virus that are not normally covered in an all-hazards Continuity of Operations Plan (COOP) or a Contagious Virus Response Plan (CVRP).

This document does not provide background information on pandemic viruses. Information and answers to frequently asked questions are readily available in a number of guidelines developed by public health departments, the Department of Homeland Security and APTA (see References).

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Participants

The American Public Transportation Association greatly appreciates the contributions of the **Pandemic Virus Service Restoration Checklist Technical Advisory Group**, which provided the primary effort in the drafting of this document.

At the time this standard was completed, the working group included the following members:

Brian Alberts, *APTA*
Marie Benton, *APTA*
Jenifer Bologna, *JacksonLewis*
Edward Burger, *Mass Transportation Authority*
Patricia Collins, *Pinellas Suncoast Transit*
Neil Crosier, *King County Metro*
Ken Cummins, *Sound Transit*
Nicole DuPuis, *APTA*
Lori Ebbighausen, *MTA Long Island Rail Road*
Alireza Edraki, *Wabtec*
Linda Ford, *APTA*
Brian Funk, *Metro Transit Minneapolis*
Kevin Gaddis, *WMATA*
Jack Gonzalez, *APTA*
Aston Greene, *LA Metro*
Daniel Harmuth, *Utah Transit Authority*
Julie Hile, *Hile Group*
Lisa Jerram, *APTA*

Tim Kelly, *MTA of Harris County*
Salvador Llamas, *AC Transit*
Robert Melan, *TSA*
William Moseley, *JacksonLewis*
Sharmila Mukherjee, *CapMetro*
Joseph Niegoski, *APTA*
Branden Porter, *Sound Transit*
Bob Previdi, *Thomson Consulting*
Wendy Reuter, *CUTA*
Gaylord Salisbury, *TriMet*
Katie Jane Smith, *JTA*
Amy Snyder, *Champaign-Urbana MTD*
Erik Stoothoff, *MBTA*
Narayana Sundaram, *APTA*
Gardner Tabon, *CapMetro*
Stacie Tiongson, *APTA*
Anthony Tisdale, *FTA*
Rebecca Zelt, *King County Metro*

Project team
Polly Hanson, *American Public Transportation Association*
Jeff Hiott, *American Public Transportation Association*

Editor
Julie Van Keuren, *Uncommon Insights*

Introduction

This introduction is not part of APTA SS-SEM-WP-016-20, "Developing a Pandemic Virus Service Restoration Checklist."

This document contains the technical advisory group's best-practice recommendations for developing a checklist to aid transit agencies in service restoration after a pandemic virus has impacted a transit agency's ability to deliver normal service. Transit agencies should determine the applicability of the elements in this white paper to their own systems, keeping in mind that not every checklist item suggested will be applicable to—or possible for—every agency and every community. The checklist items in this document are for transit agency consideration and may be mutually exclusive.

Additionally, not every virus or viral pandemic is the same, and therefore different agency responses may be required at different times. Agencies should ground their checklists in the data, requirements, plans and policies provided by their state and local governments and health departments. Once a PVSRC is drafted, the transit agency should consider sharing it with the local health department and other stakeholders for review and comment before issuing a final document.

About this white paper

An APTA white paper is written expressly to provide information representing the industry's current philosophy about a complex issue. It is not prescriptive but is designed to provide information about possible approaches that may be used to address a problem and to invite industry comments and opinions. This is a living document that will evolve over time as agencies gain experience and as scientific understanding of best practices for controlling a viral pandemic improve.

The application of the practices or guidelines contained herein is voluntary. In some cases, federal and/or state regulations govern portions of a transit system's operations, and those regulations take precedence over the best-practice guidelines offered in this white paper.

The Pandemic Virus Service Restoration Checklist Technical Advisory Group will support the APTA Mobility Recovery & Restoration Task Force's efforts as it works to develop further guidance based on these recommendations.

Developing a Pandemic Virus Service Restoration Checklist

1. Pandemic Virus Service Restoration Checklist overview

1.1 Value of the PVSRC

Like service reduction, service restoration planning should be coordinated in concert with governmental leaders to support supply-demand relationships, economic relationships and societal interactions. When possible, these efforts should be aligned with ridership demands from the opening and closure of businesses and schools.

A Pandemic Virus Service Restoration Checklist (PVSRC) outlines the elements that a transit agency will need to complete or consider in order to restore service after a shutdown or slowdown caused by a viral pandemic. The PVSRC is intended to cover extraordinary aspects specific to recovery from a pandemic virus that are not normally covered in an all-hazards Continuity of Operations Plan (COOP) or a Contagious Virus Response Plan (CVRP). A template for a PVSRC is provided as Appendix A.

Checklists are valuable tools to prevent human error in emergency situations, especially when time is of the essence. General guidance on developing an effective checklist is provided in Appendix B.

1.2 Scope of the PVSRC

The PVSRC should cover elements that are specific to a pandemic virus. These specific elements are discussed in more detail in the sections that follow but include the following considerations:

- safety and health controls specific to the virus
- facilities restoration considerations
- restoration of rolling stock
- communications with stakeholders
- tasks for legal affairs staff
- tasks for financial affairs staff
- tasks for information technology staff
- tasks for human resources staff
- tasks for security and cybersecurity staff
- tasks for paratransit operations
- continuous emergency management monitoring

Transit agencies should clearly identify responsibility for each task to be performed in the PVSRC. It is recommended that employers with more than one location should authorize and create a process for enabling local managers to make real-time decisions and act on their pandemic virus response plan accordingly.

1.3 Chain of authority

The CEO, along with the board chair and other pertinent executive managers of the transit agency, should define the process for approval of the initial PVSRC, periodic reviews of the PVSRC and revisions to the PVSRC. People with authority to revise the checklist, as well as execute and assess the effectiveness of various elements within it, should be clearly identified.

Approval by board members may need to be done through virtual meetings. Guidelines for conducting virtual board meetings are provided in Appendix C.

1.4 Identification of pandemic alert phases

Unlike a catastrophic event such as an earthquake, a pandemic virus will have various phases in the life cycle of its spread. The phases of a pandemic influenza virus as defined by the World Health Organization (and summarized in Appendix D) have been accepted and adopted by most health departments, governments and private organizations. These phases should be adopted by the transit agency in its own communications about the phases of the pandemic.

Different phases of a pandemic, particularly once human-to-human spread has begun, may need different service delivery strategies. The phases that trigger specific action readiness—including safety precautions such as enhanced cleaning and decontamination, increasing inventory levels of personal protective equipment (PPE), alternative procurement practices, types and levels of service reductions, and service restoration—will depend on the risk involved, along with local or federal government recommendations.

An ongoing analysis of ridership trends, demand and span of service needs will also inform service changes, along with local and federal government guidance. It's important that these decisions be data-driven, identifying relevant metrics around ridership and employee availability, and aligning with business continuity and school closures and reopenings whenever possible.

2. Safety and health

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

Safety must be a primary consideration in service restoration planning. Once reliable data, predictive models on viral spread and local health authorities confirm that restoring service can be done safely, the National Institute for Occupational Safety and Health (NIOSH) hierarchy of controls—elimination, substitution, engineering controls, administrative controls and PPE (summarized in Appendix E)—should be used to inform protective measures.

The following sections include measures to protect the safety and health of employees and the riding public.

2.1 Decontamination

Agencies should review CDC- and EPA-recommended cleaning procedures for equipment, vehicles and facilities, including cleaning/disinfection on an established frequency based on an assessment of the use of the space and its occupancy. Additionally, transit agencies should review, assess and resource EPA-recommended cleaning supplies, products and tools (see References), as well as associated PPE. Due to potential risks in the supply chain, they should ensure that a method is in place to quickly establish alternative products and guidance for safe use.

The disinfection program should be developed with input from local health authorities. Responsibility for each task should be clearly identified, with consideration given to the resources required and the type of vehicle or facility being cleaned. Relying heavily on current data, agencies should determine triggers for when increased cleaning and service adjustments can return to pre-pandemic levels, if applicable.

Dry cleaning methods, such as vacuuming and sweeping, are not recommended. However, if necessary, this type of cleaning should be performed with only the minimal staff present, and proper PPE should be worn at all times. The American Industrial Hygiene Association (AIHA) recommends the use of vacuums with HEPA filters when dry cleaning is required. Managers who supervise employees performing disinfecting and cleaning tasks should perform regular quality-control inspections to ensure that employees are following proper procedures, including using PPE, while cleaning.

Cleaning procedures should focus on high-touch areas such as elevator and exit buttons, grab bars, seats/benches, garbage cans, doorknobs/handles, call boxes, ticket vending machines, escalator and stairwell handrails, elevator buttons, water fountains, fare collection touchscreens and buttons, turnstiles and gates, fare equipment, and vending machines.

Some transit agencies have elected to clean their facilities and vehicles more frequently than once a day. These agencies have chosen to periodically perform minor cleaning procedures throughout the day, such as wiping down high-touch surfaces and removing trash and debris from vehicles and facilities. The CDC recommends that transit operators wipe down vehicle controls between shifts, and that counters and other hard surfaces are wiped down between interactions at customer-service locations within facilities.

According to the CDC, areas where people who have been confirmed to be infected have been present should be handled with special care. The CDC recommends that the areas be closed off as soon as possible. If possible and feasible, the area or vehicle should not be accessed by staff or passengers for 24 hours. Otherwise, the area should be ventilated by opening windows.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Establish cleaning procedures for equipment, vehicles and facilities based on CDC guidelines.
- ✓ Create a checklist for cleaning staff that specifies all areas requiring cleaning and decontamination and requires the employees' signatures.
- ✓ Develop written procedures for cleaning high-touch areas.
- ✓ Consider posting "last cleaned" signage."
- ✓ Instruct employees and the public to practice routine cleaning and disinfection of hands, frequently touched surfaces and workspaces.
- ✓ Identify workgroups where employees are required to share equipment, and create a policy requiring employees to decontaminate shared equipment after use.
- ✓ Use alcohol-based wipes or spray and paper towels to decontaminate shared equipment after use.
- ✓ Instruct employees on cleaning of personal items such as desk, keyboard and mouse.
- ✓ Remind employees of cough/sneeze etiquette.
- ✓ Supply operators with cleaning materials, and task them with decontaminating high-touch areas on coaches during layovers.

    NOTE: This will require providing additional time at layovers to allow operators adequate time for breaks as well as completing the decontamination.

- ✓ Adjust building ventilation controls to allow for increased circulation of outdoor air.
- ✓ Establish a process to regularly clean air filtration systems.

✓ Create a decontamination response plan if a passenger or employee reports a positive virus test, including a procedure for decontaminating all locations exposed to that person.
✓ Establish a procedure for sanitizing locations when notified that an employee has tested positive or has been quarantined due to exposure.
✓ Determine triggers for when decontamination procedures can return to pre-pandemic levels.
✓ Prop open high-traffic doors, without compromising safety or security, so they do not have to be touched.
✓ Install foot-operated door pulls, without compromising safety or security, for high-traffic doors.
✓ Encourage all employees to change clothing before and after shifts to avoid wearing work clothes home.
✓ Stock break rooms, kitchens, restrooms and other areas where there are high-touch surfaces with disinfecting wipes, hand sanitizer and other applicable cleaning solutions.
✓ Remove communal coffee stations or water coolers from workspaces; shut off water fountains and encourage employees to use personal beverage vessels.
✓ Where practical, remove trash lids that require touch, ensure that all outdoor disposal receptacles do not require touch, and line all receptacles, including those on coaches.
✓ Where practical, remove shared equipment such as workroom staplers and three-hole punches.

2.2 Testing, screening and reporting

In compliance with state and local orders, agencies may implement pandemic testing, screening and reporting protocols for both employees and passengers. Agencies should notify local health officials, staff, and customers (if possible) immediately of any possible case of COVID-19 while maintaining confidentiality consistent with the Americans with Disabilities Act (ADA) and other applicable federal and state privacy laws.

Screening is a process of identifying symptoms that may require further testing to determine the presence of an infection. It may be conducted through a questionnaire (asking, for example, "In the past 24 hours, have you had a fever, cough, shortness of breath, fatigue, difficulty breathing, body/muscle aches, or a new loss of taste or smell?").

Testing is a laboratory procedure that takes more time to produce results. Viral (molecular) testing determines the presence of an active infection. Antibody (serology) testing confirms a previous infection. If an employee is confirmed to have a positive test, employers should inform fellow employees of their possible exposure in the workplace. The employer should instruct fellow employees about how to proceed based on the CDC Public Health Recommendations for Community-Related Exposure.

> **NOTE:** Any testing or screening procedures will need to be done in compliance with medical confidentiality and consent laws, as well as state privacy and data security laws. Transit agencies should consider instituting such checks at shift change to minimize disruption.

A reporting system should be developed and used to track virus cases and presumed cases affecting the transit system. A sample Pandemic Incident Report is provided as Appendix F.

Agencies should consider the following items for inclusion in their PVSRC:

✓ Determine the need for testing or screening employees, especially employees returning to work after an absence.
✓ Identify personnel or vendors to conduct testing or screening, including required training or qualifications.
✓ Establish screening policy/procedures for staff before their entry into agency facilities.

NOTE: This should be supervised, developed or monitored by a health professional.

- ✓ Provide instructions to employees to self-monitor throughout the day and report any changes in symptoms.
- ✓ Establish a means of identifying personnel that have been screened and are clear to work (e.g., disposable wristbands that have a different color for each day of the week).
- ✓ Develop a procedure for notifying employees of any possible exposure in the workplace.
- ✓ Establish easy-to-use lines of communication for field employees to report virus-related hazards, such as by adapting near-miss/close-calls reporting systems.
- ✓ Create a Pandemic Incident Report to enable contact tracing.
- ✓ Establish and instruct employees for procedures on identifying and reporting virus symptoms.
- ✓ Establish an isolation location for employees who experience symptoms while working.
- ✓ Establish a procedure for employees to travel safely home if they experience symptoms while working.
- ✓ Create a return-to-work policy in accordance with CDC guidelines for employees exposed to the virus.

NOTE: Also consider CDC and state and local health department critical infrastructure workers guidance (see References).

2.3 Social distancing

Social distancing, also called physical distancing, prevents viral transmission from person to person by deliberately increasing the distance between them in line with health authorities' recommendations. Agencies should develop policies to encourage or require social distancing for employees, contractors and the riding public.

2.3.1 Aboard vehicles

Social distancing strategies for transit agency vehicles, including nonrevenue vehicles, should be considered under the guidance of state and local health authorities. Agency leadership may want to give careful consideration to measures such as operating without fares or without collection enforcement to reduce contact between riders and operators, or increasing service frequency to reduce passenger loads on individual trains and buses.

The CDC recommends social distancing on public transportation. On vehicles, the easiest way to do this is to mark or block off seats to keep passengers from sitting too close to one another. Seating arrangements should be designed to space passengers appropriately whenever possible. Once all designated seating areas have been occupied within the vehicle, transit agencies should consider instructing operators not to accept additional riders if possible.

Agencies should consider the impact of social distancing on each type of coach and configuration in the fleet. They should determine the maximum number of passengers per coach and develop operation and communications protocols when a coach meets the thresholds. When passenger demand has exceeded vehicle capacity, this must be immediately reported to the customers waiting. If vehicles are reaching capacity daily at the same time and place, the agency should report this to the community and riding public as well, and consider requesting that passengers travel at other times. This must be done in language the public understands.

Transit agencies also should coordinate with local agencies that provide services to low-income people and those experiencing housing instability. Many shelters reduce occupancy during a pandemic to achieve social distancing, and temporary changes to transit service may not be known to non-destination riders.

Longitudinal bench style seating or other innovative designs can help to reduce cleaning effort on vehicles compared with segmented transverse arrangements.
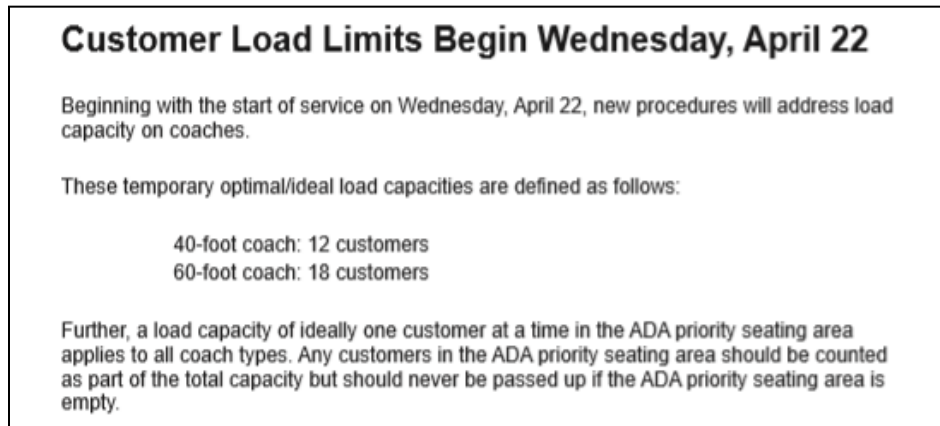
Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Identify and plan to enforce maximum seated and standing capacity per vehicle size/type.
- ✓ Increase service levels to accommodate social distancing.
- ✓ Create a social distancing strategy for nonrevenue vehicles.
- ✓ Use covers, signs or decals to prevent use of some vehicle seats in order to create social distancing space (see **Figure 1**).
- ✓ Create physical barriers such as chains or mark out intervals to facilitate social distancing on vehicles.
- ✓ Implement rear-door boarding and alighting, except for passengers who need a ramp or lift.
- ✓ Temporarily waive fares.
- ✓ Temporarily suspend fare collection enforcement.
- ✓ Move fare card readers to rear doors.
- ✓ Implement contactless fare collection methods.
- ✓ Install temporary or permanent enclosures (such as Lexan or Plexiglas) around the operator's seat.
- ✓ Post signage in vehicles explaining social distancing rules.
- ✓ Develop a policy for bypassing stops if a bus has reached capacity.
- ✓ Consider increasing number of buses in service or using larger buses to help passengers stay apart.
- ✓ Consider reserving a railcar for the elderly and vulnerable population.
- ✓ Consider closing first and last railcars to passengers, where practicable based on consist passenger capacity, to limit operator exposure.
- ✓ Establish a method for reporting vehicles at or over capacity.
- ✓ Assess which vehicles are over the loading guidelines, and monitor for trends.
- ✓ Make onboard announcements or post signage about precautionary measures being taken (see **Figure 2**).
- ✓ Increase service to essential locations such as hospitals and supermarkets.
- ✓ Coordinate with local government and major local employers to encourage a steady level of system capacity throughout the day (i.e., through altering shift hours or encouraging telecommuting).

FIGURE 1
Closed Seat Signage

FIGURE 2
Social Distancing Signage

> ## Customer Load Limits Begin Wednesday, April 22
>
> Beginning with the start of service on Wednesday, April 22, new procedures will address load capacity on coaches.
>
> These temporary optimal/ideal load capacities are defined as follows:
>
>   40-foot coach: 12 customers
>   60-foot coach: 18 customers
>
> Further, a load capacity of ideally one customer at a time in the ADA priority seating area applies to all coach types. Any customers in the ADA priority seating area should be counted as part of the total capacity but should never be passed up if the ADA priority seating area is empty.

2.3.2 In stations and boarding areas

Many transit agencies have instituted measures to help encourage social distancing by placing markers on the floors of transit stations to show where passengers should stand. Markers should provide clear instructions and provide adequate space so that customers remain a recommended distance apart as much as possible.

Social distancing is a particular challenge in stations and boarding areas, where large numbers of people tend to congregate. With many other public spaces closed—libraries, parks, coffee shops, etc.—there are fewer gathering places with restrooms available, which can increase the instances of crowding hazards in and around stations. Some agencies may want to provide temporary restroom facilities at key locations to help reduce impact to the system during the return to service. Bus operators also may need to use these facilities, since the restrooms they normally use at restaurants and businesses on their routes may now be closed.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Install footprint decals or other separators on floors to create appropriate social distancing space.
- ✓ Use partitions (such as Lexan or Plexiglas) to increase physical space between employees and customers.
- ✓ Evaluate maintenance and facility personnel tasks for threats to social distancing, and implement protective measures for these employees and contractors.
- ✓ Coordinate with police, emergency management and local businesses to assist with crowd control.
- ✓ Assess which stations are over the loading guidelines, and monitor for trends throughout the day.
- ✓ Develop a system to report over-loading conditions to the public, especially when passenger demand outpaces vehicle capacity.
- ✓ Coordinate with local government and major local employers to encourage a steady level of system capacity throughout the day (i.e., through altering shift hours or encouraging telecommuting).
- ✓ Provide temporary restroom facilities at key locations.
- ✓ Add signage to discourage customers from boarding full vehicles.

   NOTE: This could be aided by providing information on when the next vehicle will be arriving for a given route.

- ✓ Waive fares or suspend fare enforcement until measures are in place to maximize social distance between riders and operators.
- ✓ Consider implementing contactless fare collection methods.

2.3.3 In office spaces

Agencies should follow the recommendations of health authorities to maintain social distancing for office workers during a viral pandemic. As offices are reoccupied during service restoration, agencies should take steps to encourage employees and contractors to maintain safe distances.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Implement or extend the use of flexible worksites (e.g., telework).
- ✓ Implement or extend flexible work hours (e.g., staggered shifts).
- ✓ Increase physical space between employee workstations.
- ✓ Establish barriers (such as Lexan or Plexiglas) between office workspaces that cannot be separated and in any areas where employees may have contact with the public.
- ✓ Develop guidance to ensure social distancing on elevators.
- ✓ Install footprint decals around elevators and common areas to illustrate social distancing space.
- ✓ Evaluate and redesignate maximum capacity/seating in conference rooms, break rooms and cafeterias, and remove chairs that would exceed those limits.
- ✓ Encourage employees with offices and cubicles to take their breaks in their private spaces.
- ✓ Repurpose conference rooms as break areas for employees who do not have their own cubicles or offices.
- ✓ Consider assigning staggered breaks so employees aren't crowding into shared areas at one time.
- ✓ Evaluate traffic flow throughout the office space and provide visual cues such as arrows to designate direction of travel.
- ✓ Allow employees to drive personal vehicles to worksites.
- ✓ Protect mission-critical locations like control centers by dispersing employees to backup control centers.
- ✓ Arrange for services to be provided remotely (e.g., phone, video or web).
- ✓ Implement flexible meeting and travel options (e.g., postpone nonessential meetings or events).
- ✓ Require or recommend that meetings be held virtually, using available videoconferencing technology.
- ✓ Limit on-site visitors to essential visitors only.
- ✓ Arrange to have products and mail delivered in a contactless fashion.
- ✓ Remove or restrict access to communal coffee stations or water coolers.

2.4 Personal protective equipment

Personal protective equipment for a viral pandemic includes masks and gloves to act as a barrier to viral transmission, and hand-sanitizing or disinfecting products to kill the virus on surfaces. For guidelines on procurement of PPE, see Section 2.5. For guidelines on enforcement of PPE rules, see Section 10.2.

Transit agencies should define the risks of the pandemic to employees, resource staff and the public to determine appropriate PPE guidelines for each classification of person. Agencies can use the OSHA-created worker risk pyramid (see References) to assess occupational risk of exposure.

Required hygienic practices for PPE include not touching the face with unwashed hands or gloves and washing hands after removing PPE. The CDC has additional guidelines for donning and doffing protective gear (see References). For tasks where employees must work closely with others, and where controls such as physical barriers and/or job modifications cannot be established or are not feasible, provide employees with cloth face coverings or face shields, and ensure that they are worn, to reduce the risk of virus transmission.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Assess health risks to employees, contractors and passengers, and resource personal protective equipment for their use.
- ✓ Formalize PPE policies for employees, contractors and passengers.
- ✓ Communicate PPE policies to employees, contractors and passengers.
- ✓ Enforce PPE policies for employees, contractors and passengers.
- ✓ Establish plan for distributing PPE to employees, contractors and passengers.
- ✓ Monitor stockpiles and restock PPE.
- ✓ Provide PPE that complies with reasonable accommodations, such as latex-free gloves or modified face masks.
- ✓ Communicate PPE hygiene to workers and post guidelines in a visible area.
- ✓ Create procedures for managers to confirm that employees have required PPE and ensure that PPE is being used appropriately as directed and required.
- ✓ Create policies for operators and other frontline personnel to use gloves when handling lost items.
- ✓ Determine PPE requirements for each employee classification, create PPE kits for each classification with instructions on how to replenish supplies (see **Figure 3**).

FIGURE 3
Operator PPE Kit Instructions

2.5 Procurement of safety equipment

During the preparation and pre-event phases of a viral pandemic, transit agencies should familiarize themselves with and understand how to access critical cleaning supplies and other PPE. If suppliers are unable to provide for transit agency needs, a request for assistance may be submitted to local or state emergency management agencies. If those agencies are unable to address the PPE shortfall, the agency can submit a request for support to its FEMA Regional Response Coordination Center.

For tasks where employees must transfer materials, create a process to transfer materials while limiting person-to-person contact. This includes any areas or process where parts, material, equipment, etc. are received or distributed. This may include supply stores and PPE distribution areas.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Monitor stockpiles and restock PPE, cleaning supplies and other public health products.
- ✓ Evaluate and retain support contractors to conduct and/or supplement future operational and cleaning services.
- ✓ Evaluate supply chains for key pandemic response supplies.
- ✓ Create a process for limiting person-to-person contact while transferring materials.
- ✓ Create specific supply lists by employee classification.

2.6 Other safety considerations

Agencies should be conscious of the risk of trading hazards, as happens when an adjustment to policy or procedure mitigates one hazard while unintentionally introducing other hazards. For example, agencies might try to improve social distancing by having one person do a multiple-person job, putting that person in a different type of danger. A better solution would be to provide guidance and appropriate tools to allow for multiple-person jobs while still limiting virus exposure, or if feasible postponing multiple-person jobs altogether. The risk of trading hazards is especially high when there is an intense focus on threats and many changes are being made at a fast pace such that other known hazards may be overlooked.

Essential personnel of all kinds will experience intense, chronic stress in pandemic conditions. Take special care to support the mental health of employees, from the front line to the C-suite.

Agencies should consider collaborating with local health authorities when possible to make vaccinations and/or antiviral medications available for essential employees.

3. Facilities

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

In the context of a pandemic, the potential for contagion exists universally, including throughout transit facilities and along employee and passenger routes entirely outside the control of the agency. Therefore, in addition to considering conditions at the transit facility, agencies should routinely enforce domicile safety practices with all employees to increase their knowledge of how to equip and maintain their homes against the virus to help insulate themselves, their families and the transit system from exposure.

Cleaning of transit vehicles and facilities should always be completed prior to disinfection. Cleaning procedures should be designed to remove all dirt, grime and debris from surfaces so they can be disinfected during a subsequent process.

The CDC and the Transportation Research Board (TRB) recommend that transit facilities and vehicles be cleaned at least daily. The entirety of the vehicle or facility area should be cleaned, but efforts should be focused on high-touch surfaces such as workstations, operator controls, seats, kiosks, ticket machines, turnstiles, benches, handrails, garbage cans, door handles, phones, restroom surfaces, elevator buttons and system maps. For soft or porous surfaces, remove any visible contamination, if present, and clean with appropriate cleansers indicated for use on these surfaces. The EPA recommends that transit agencies consider

removing soft and porous materials, such as area rugs and seating, within facilities to reduce the challenges of cleaning and disinfecting them. Surfaces should be cleaned with agency-approved detergent or soap and wash mittens, rags or mops.

Agencies should recognize that employees may be fearful about returning to work, and should communicate the steps being taken regularly and transparently.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Prioritize critical regulatory activities that must continue, including inspections and signal testing.
- ✓ Establish a plan for cleaning and inspecting the facilities before reoccupying, including HVAC and mechanical checks.
- ✓ Establish a cleaning area and/or protocol for the cleaning of shared tools.
- ✓ Establish protocols for wellness checks (Section 2.2), visitor policies, building reception, and shipping and receiving.
- ✓ Add markings, barriers or revised traffic patterns to workplaces to aid social distancing (Section 2.3).
- ✓ Stock all workplaces with appropriate PPE (Section 2.4).
- ✓ Establish workforce policies determining who will come back to work and when.
- ✓ Establish emergency employee communication protocols.
- ✓ Establish touchless ingress and egress procedures.
- ✓ Increase cleaning frequency throughout the facility, particularly in restrooms.
- ✓ Institute a clean-desk policy to aid daily cleaning.
- ✓ Post accessible guidelines for handwashing, sanitizing, PPE use and social distancing.
- ✓ Review information technology equipment and policies, including access permissions, virtual connectivity and cybersecurity protocols (Section 10.1).
- ✓ Carefully evaluate planned capital enhancement projects to determine whether pandemic conditions warrant their delay or acceleration.
- ✓ Add a "last cleaned" board or sign for restrooms.
- ✓ Post occupancy limits for common areas.

4. Rolling stock

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

During a post-pandemic phase, levels of transit service should be determined in concert with government leaders to support ridership demands. If the system has not been operating under normal conditions for some time, a first step will be to conduct required regulatory inspections of all systems, including vehicles, servicing and repair shops, vehicle control systems, tracks, rights-of-way, electric, water, sanitation, and communications, among others.

Review for potential impacts to rolling stock due to prolonged lack of use, including fuel levels, emergency systems and emergency battery status, among others.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Establish plans to rotate use of rolling stock when feasible.
- ✓ Maintain a log for in-service and out-of-service mileage.
- ✓ Restock tickets, cash, schedules and other materials.

✓ Review information technology equipment and policies, including access permissions, virtual connectivity and cybersecurity protocols.
✓ Update signage to match the service restoration level.
✓ Add social distancing equipment (Section 2.3.1) or signage to rolling stock.
✓ Update communications regarding policy and procedure changes to employees and the public.
✓ Ensure the proper security protection for rolling stock that is no longer in service.

5. Communications with stakeholders

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

Information sharing and other communications must be a major part of any PVSRC. Communications in this section are discussed in five distinct areas:

- Communications with employees and labor organizations
- Communications with the community and riding public
- Communications with partner agencies, vendors and specialized services
- Communications with the board of directors
- Communications with governmental officials

5.1 Communications with employees and labor organizations

When it comes to willingness to work in the wake of a viral pandemic, transit employees and their collective bargaining units are likely to have the same levels of fear, confusion and potentially mistrust as anyone else. They must be actively engaged, educated and heard as partners in the decision-making process.

Information and communications to the workforce should be based on the recommendations of state and local health departments and local or federal governments, and transit agency staff should partner with those agencies to ensure that they are sharing accurate, timely and appropriate information with their employees.

Agencies should consider the following items for inclusion in their PVSRC:

✓ Display accessible notices at all facilities and worksites explaining safety requirements, including decontamination; testing, screening and reporting; social distancing; and PPE.
✓ Display accessible notices at all facilities and worksites listing virus symptoms and risk factors; directions for cleaning keyboard, mouse, etc.; and sneeze/cough etiquette.
✓ Develop an intranet landing page for ongoing pandemic communications, including any policy changes, how-to videos, and resources from government and health partners supporting ongoing mitigation.
✓ Use photos to show employees suggested safe loading, as well as unsafe loading practices.
✓ Ensure that intranet materials are also available to employees or contractors who do not have email access or access to the intranet.
✓ Establish and maintain virtual town halls as an avenue to communicate next steps.
✓ Conduct safety stand-down/toolbox talk/tailgate training at the beginning of each shift for all workgroups, excluding operations, to explain the protective measures.
✓ Establish and maintain a newsletter to keep employees, executives and board members informed.
✓ Release safety department bulletins to provide direction and clarity on changes to established business practices.

✓ Designate one employee for each workgroup and shift to be responsible for monitoring and enforcing health and safety mitigations (social distancing, PPE, etc.).
✓ Provide ongoing and repeated education about virus protection strategies via videos, webinars and FAQs.
✓ Distribute exposure protocols guidance document to managers of all employees, to ensure that all are adhering to the same requirements.
✓ Develop responses for questions and concerns raised by symptomatic people in the transit system.
✓ Ensure that all communications include the appropriate means of reporting concerns and questions.

5.2 Communications with the community and riding public

Like employees, the community and riding public are likely to have fears and concerns about how the transit agency is attempting to mitigate the effects of the virus, what its cleaning and decontaminating procedures entail, and what new rules and requirements apply to system users. All these mobility restrictions and sanitary measures must be determined and communicated in coordination with partner agencies, state and local governments, and health authorities.

Agencies should ask that health authorities and other partner agencies also reinforce these safety expectations—including social distancing and PPE recommendations or requirements—on their own channels.

Transit agencies should identify as many opportunities as possible to make their viral mitigation efforts visible to the public, whether through media outlets or through strategic cleaning schedules. This will contribute to rebuilding a positive image that emphasizes the continued benefits of public transportation.

Agencies should consider the following items for inclusion in their PVSRC:

✓ Establish a point person to coordinate delivery of messages to the public.
✓ Develop a media plan, and identify agency employees who will communicate with riders (station clerks, dispatchers, train crews, customer service, etc.).
✓ Coordinate communications efforts with government and health officials, APTA, CDC and/or WHO when possible.
✓ Develop coordinated responses for difficult and frequently asked questions.
✓ Ensure that the agency is communicating all social distancing requirements, PPE guidelines, and efforts to clean and decontaminate stations and vehicles.
✓ Communicate the need to give priority to essential workers.
✓ Monitor real-time crowd conditions in stations and on vehicles using operating personnel, real-time load data, CCTV, etc., and communicate these to the public.
✓ Track hourly trends and report them to the public to help riders avoid crowd conditions.
✓ Design a marketing campaign to speak to "How clean is clean?" and engage a public official or popular figure to be the face of the effort.
✓ Leverage existing static and electronic signage and public address systems to communicate public health initiatives.
✓ Leverage websites, signage (see **Figure 4**), earned media, social media and all operations staff who communicate with riders.
✓ Leverage email marketing lists to communicate rule changes and other public health initiatives.
✓ Anticipate and prepare for an increased level of customer service requests and questions.
✓ Consider modifying existing "See Something, Say Something" messaging to specifically call out unsafe conditions of revenue vehicles and platforms.
✓ Place photos in stations, at stops and on vehicles to show examples of safe and unsafe vehicle loading.

✓ Communicate plainly any enforcement actions the agency will and will not take regarding social distancing or PPE requirements.
✓ Reaffirm public affairs guidance with all employees and confirm media points of contact.

FIGURE 4
Example Safety Messaging

5.3 Communications with partner agencies, vendors and specialized services

Agencies should clearly communicate with partner agencies, vendors and specialized services on needs for the restoration of services. Agencies should consider the following items for inclusion in their PVSRC:

✓ Review contracts, MOUs, etc., and update for current service levels.
✓ Consider the impact of possible future pandemics or a second wave on these agreements.

5.4 Communications with the board of directors

Agencies should communicate regularly with the chair of the board and with the full board to ensure that they are aware of steps taken related to safety, route changes, fare changes, staff schedules (telework) and media inquiries. The board should be aware of the environment with the staff and all concerns within the agency. This ensures that board members do not receive false information from anyone.

Appendix C has additional guidance concerning board governance and communications.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Schedule regular updates with the board and chairman.
- ✓ Provide the board with information about health and safety measures being taken.
- ✓ Provide the board with information concerning status of facilities and rolling stock.
- ✓ Provide the board with information about the activities of legal affairs, financial affairs, human resources, information technology and security staff.
- ✓ Provide the board with information related to communication to employees, the public and the media.
- ✓ Provide the board with information about emergency procurements and inventory.
- ✓ Provide the board with information about continuous emergency management monitoring.

5.5 Communications with health and governmental officials

The agency should develop a federal, state and local government relations strategy to advocate for any funding or regulatory relief as a result of the pandemic, and it should be prepared to communicate its ongoing needs for funding and equipment as it continues to provide essential services throughout restoration of service.

Government relations staff should be leveraged to coordinate supply-and-demand relationships among transit services, businesses, schools, day cares, medical services and other essential services/retailers to ensure that no action has unintended consequences on transit service and that no transit service change comes unexpectedly, strangling the operations of essential services. Overcrowding is likely to be a persistent issue that will require ongoing communications with elected officials to stagger work hours, control crowds with police assistance, or take other steps to help maintain adequate social distancing.

If possible, agencies should try to maintain political support for the goal of reducing reliance on single-occupancy vehicles. They should stress the negative effects of car culture on public health, safety, the environment, the economy, street design and mobility access.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Reaffirm contacts with local, state and federal government stakeholders.
- ✓ Advocate for resources to maintain service during the viral pandemic emergency.
- ✓ Advocate for resources to control crowding in stations and on vehicles.
- ✓ Advocate for resources and infrastructure that enable transit to increase service frequency if necessary for social distancing or to enhance service to essential locations.
- ✓ Advocate for political support to prevent a return to car culture.

6. Legal affairs

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

With the engagement of the board of directors, transit agency legal staff should be tasked with identifying, assessing and preparing for regulatory, legislative and other anticipated legal issues that could arise in connection with the pandemic. Partnering with governmental officials—and considering community needs driven by business, school and day care openings and closures—legal affairs staff should review and interpret public health orders and other legislative actions to draft new transit policies and protocols and prepare written employee notifications.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Update pandemic health and safety plan.
- ✓ Update policies around disability and leave of absence management.
- ✓ Update policies around employment issues.
- ✓ Update Environment, Health and Safety (EHS) notices.
- ✓ Update labor policies.
- ✓ Update privacy, data and cybersecurity protocols.
- ✓ Update policies allowing electronic signatures.
- ✓ Update wage and hour policies.

6.1 Pandemic health and safety plan

Transit agency legal affairs and health and safety departments should monitor CDC and local and state health department guidance, as well as local executive orders related to the pandemic, on a daily basis. The pandemic health and safety plan should be updated regularly to ensure compliance with the most recent guidance.

Elements of a comprehensive plan:

1. The latest and most accurate information from the CDC and state and local health departments on ways to limit and avoid transmission of a pandemic virus
2. Information on pandemic virus symptoms
3. Employee notification requirements, including how to notify the employer when sick, how to notify the employer of being at risk of serious illness due to the pandemic virus, and when not to report to work because of virus symptoms or suspected contact with the virus
4. Cleaning and disinfecting protocols, including regular deep cleaning of vehicles, workplaces, stations and frequently touched surfaces, as well as enhanced cleaning procedures following suspected or confirmed virus exposure in a facility (see Section 2.1)
5. Pre-work employee screening policy, including a health screening questionnaire, temperature monitoring or other tests (see Section 2.2)
6. Paratransit passengers screening policy, including any pre-ride questionnaire or temperature monitoring
7. Social distancing rules, including guidelines for limiting passenger/driver interaction, social distancing while waiting for transit, and social distancing while on transit vehicles (see Section 2.3)
8. Employee PPE and workplace hygiene guidelines, including rules for gloves, masks, hand-sanitizing products and disinfectant products (see Section 2.4)
9. Guidelines for passenger PPE, such as a recommendation or requirement to wear masks (see Section 2.4)
10. Policy on contractors and visitors to non-public transit agency work areas
11. Return-to-work guidelines in the case of positive virus cases or exposures, including contract tracing and Pandemic Incident Reports (see Appendix F)
12. Virus-related leave and accommodation policies

6.2 Disability and leave of absence management issues

Consider updating policies related to the following:

1. Accommodating high-risk employees (e.g., immune-compromised, asthma or heart conditions) with extended telework
2. Work-from-home as a reasonable accommodation, when needed
3. Claims related to Families First Coronavirus Response Act (FFCRA), such as taking leave, sick pay or counting number of employees for coverage

6.3 Employment issues

Consider steps to address the following possible scenarios:

1. Promissory estoppel or breach-of-contract claims for rescinding offers of employment
2. Not investigating harassment claims promptly due to lack of resources/work-from-home
3. Failure to reimburse business expenses (cell phones, internet)
4. Discrimination claims based on caretaker status for requiring a return to work before schools and day cares reopen
5. Demand for severance and other benefits for furloughed employees, and potential discrimination and/or wage claims if benefits are not provided

6.4 Environment, Health and Safety (EHS) issues

Consider steps to take given the following possible scenarios:

1. OSHA whistleblower/retaliation
2. OSHA failure to furnish a safe workplace
3. Negligence for failing to protect employees from virus exposure by prohibiting people from workplace or requiring contact with others without implementing some form of screening
4. Imminent danger exception: "Essential" employees who are terminated for refusing to work out of fear of virus may challenge/litigate under "imminent danger exception"
5. Other claims that an employee was forced to work in an unsafe environment

6.5 Labor issues

In tandem with transit union officials, consider updating policies related to the following:

1. Grievances (reductions in force, effects bargaining)
2. Policy regarding hazard pay, death benefits and entitlements related to on-duty pandemic operations

6.6 Privacy, data and cybersecurity issues

Consider updating policies related to the following:

1. Data privacy issues in connection with virus testing or screening program for employees, if applicable
2. Medical record confidentiality and safeguard claims related to the handling of virus exposure information
3. Potential Genetic Information Nondiscrimination Act (GINA) claims when virus information relates to employees' family members

6.7 Wage and hour issues

Consider updating policies related to the following:

1. Failure to pay wages/vacation/PTO on termination
2. Misclassification to the extent exempt employees are doing nonexempt work
3. Fair Labor Standards Act (FLSA) and other wage and hour claims for reducing exempt employees' wages improperly
4. Failure to comply with certain state wage notification laws regarding pay reductions
5. Off-the-clock, work-from-home claims by nonexempt workers

7. Financial affairs

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

Revenue shortages are likely to be one effect of a pandemic virus, particularly if the agency opted to suspend fare collection during the active phases. Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Calculate, forecast and monitor costs, revenue and recovery time, including short-term (e.g., six-month) and long-term (e.g., 12-month) projections.
- ✓ Compute the accounting of virus expenses by operating expense categories.

> **NOTE:** It is important to account for labor time categorized accordingly to reflect remote work and any supplemental sick time offered during virus onset.

- ✓ Calculate, forecast and monitor costs, revenue and recovery time for a potential second wave of the virus.
- ✓ Implement options and actions to correct revenue shortages with several models for consideration.
- ✓ Assess and mitigate impacts on insurance and other risk-management activities and self-insuring business areas.
- ✓ Develop and coordinate a strategy to steward emergency government funding effectively and efficiently (e.g., CARES Act, Federal Transit Administration Emergency Relief Program), while considering future reauthorization funding.
- ✓ Restore fare collection as soon as practicable to ease financial burden, while also considering safer fare collection methods.
- ✓ Report alterations to hours, work assignments, purchasing, etc., in consistent detail to ensure eligibility and auditability.
- ✓ Forecast costs and time to recover based on projected lost revenue.
- ✓ Work with other departments to anticipate any likely contractual issues, to include potential force majeure notices from contractors and suppliers.
- ✓ Mitigate delays in agency supply chain recovery by adapting financing protocols during emergencies to support essential functions.
- ✓ Consider creating a mechanism or separate payroll job code to track any expenses and overtime created because of the pandemic.

8. Information technology

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

Agency information technology staff should review staffing and service levels to determine what was expanded during the active phases of the pandemic crisis and might need to be drawn down in the recovery/service restoration phase. For example, if vendors were brought on in an emergency manner, they may not have budgets, contracts or appropriate levels of access to continue steadily after the crisis. Virtual connectivity for long-term work-at-home business operations may or may not need to be maintained.

> **NOTE:** Cybersecurity issues are addressed in Section 10.1.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Review and update the COOP and other emergency management plans with lessons learned for adapting and integrating technology for remote work, virtual meetings, etc.
- ✓ Assess capacity throughout and address security issues (VPN accounts, videoconferencing licenses, internet bandwidth, etc.).
- ✓ Reevaluate any increase in support hours and determine if and how to restore normal hours.
- ✓ Ensure that high-priority calling capacity is maintained for essential functions; ensure that bandwidths and licenses are adequate.
- ✓ Review contracts for cell phones, hotspots, etc. to ensure continued service, or what can be reduced but remain as contingency operations.
- ✓ Support satellite communications and VoIP technology to supplement communication platforms.
- ✓ Review vendors added during the crisis (budget, access and contractual terms) to true up as needed.
- ✓ True up licenses as usage of systems has shifted, either up or down.
- ✓ Establish procedures to ensure that any equipment lent out is cleaned and scanned for malware or wiped and reloaded.
- ✓ Review and update customer service call center procedures for combined on-site/remote operations.
- ✓ Determine whether the Business Continuity Plan includes a verified list of the essential roles and individuals included in service restoration.
- ✓ Evaluate and catch up on critical system maintenance and changes to support operations.
- ✓ Confirm that contingency plans and critical response mechanisms are in place in the event that the reopening should fail or the virus should reoccur and force additional closures.
- ✓ Conduct after-action review of all systems (e.g., what worked and didn't work for telecommuting).

9. Human resources

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

As transit agency facilities and service are restored, human resources staff members should implement policies and practices to address the new operating realities. This should be done in consultation with public health authorities' safety recommendations; medical professionals' judgment about modes of virus transmission, as well as underlying health conditions that could place certain employees at more risk; and the involvement of transit unions, if applicable.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Establish modified work practices to enhance social distancing.
- ✓ Anticipate pandemic-related employee scenarios.
- ✓ Provide pandemic-related employee support.
- ✓ Revise and institute training policies.
- ✓ Revise and institute travel policies.
- ✓ Review other pandemic-related employment policies.
- ✓ Invest in employee engagement.
- ✓ Plan for future pandemic response.

9.1 Modified work practices to enhance social distancing

Consider updating policies related to the following:

1. Staggered schedules
2. Reduced workweeks (four days/10 hours vs. five days/eight hours)
3. Restructured facilities to create distance
4. Transitioning employees to call-in and/or checking online for daily assignments, to reduce face-to-face interaction at the dispatch window (options may include allowing operators to sign-in/report for duty from vehicles/coaches)
5. Remote work
6. Canceling rail and bus roadeos, unless these occur after social distancing guidelines and restrictions on gatherings have been lifted
7. Eliminating overlapping shifts for supervisory personnel to reduce exposure between shifts
8. Written policy limiting the number of employees responding to an incident/accident scene; allow for multiple employees to respond only when necessary (such as towing a vehicle or providing emergency assistance)
9. Issuing tablets for supervisors to complete reports while in the field (to eliminate potential exposure at bases)
10. Allowing operators to relieve one another on route instead of inside the base to reduce face-to-face interaction at the dispatch window
11. Postponing all picks until virtual or online picks can be accomplished
12. Limiting the size of teams to the extent practicable
13. New work rules reducing or eliminating in-person meetings
14. Closing quiet rooms, workout areas and recreation facilities (see **Figure 5**).

FIGURE 5
Closure Signs

15. New rules for break rooms
16. Staggered breaks
17. Policies on personal greetings (e.g., handshakes)
18. PPE rules, including type, supply sources, donning/doffing, and training on use
19. Infection control, including common areas maintained by the agency and personal areas maintained by the employee
20. Retention of support contractors to conduct and/or supplement future operational and cleaning services
21. Anticipated virus-related accommodations, including:
    • remote work policies and practices
    • modified PPE expectations
    • equipment and devices to make physically disabled employees more comfortable (accessible technology for remote videoconferences, telephone communications, etc.)
    • modifying social distancing policies (e.g., where employees need assistance from or require face-to-face contact with others)
    • relaxing infection control expectations impacted by disability (e.g., cleaning)
    • modifying health monitoring or fitness for duty standards (e.g., elevated temperatures caused by disability)
    • managing chronic respiratory illnesses unrelated to the virus
    • flexible attendance and leave
22. A pandemic-related paid leave policy
23. Off-site work activities, including work-related travel, customer interactions, conferences and training
24. Off-duty activities, including restrictions on types of activities (e.g., mass gatherings, travel), and disclosure of such activities
25. Fitness for duty, including both employee self-monitoring and transit authority monitoring through testing, surveys and evaluations (including risks posed by off-duty activities and contacts)

26. Statutory/policy leave obligations, including:
    - posting any required legal notices
    - clarifying pandemic-related leave obligations under federal, state and/or local law
    - clarifying or modifying transit authority PTO, vacation and sick leave policies to address pandemic-related absences

9.2 Anticipated pandemic-related employee scenarios

Prepare human resources staff and consider updating policies related to the following:

1. An employee's health, contacts or behaviors raise safety concerns:
   - Employee becomes ill or symptomatic.
   - Employee has close contact with individual with confirmed or suspected virus infection.
   - Employee engages in high-risk behavior or activities (e.g., mass gatherings, travel).
2. Employees request leave to care for dependent minors whose school or childcare provider are unavailable.
3. Employees request leave because they live with an individual in a vulnerable population.
4. Employees are capable but unwilling to work from home in compliance with the agency's social distancing policy.
5. Employees are incapable of working from home but also unwilling to be physically present at work because of virus-related concerns.
6. Employees are asked to report to work but prefer to and are capable of working from home because of virus-related concerns or for other reasons.
7. Employees share rumors or concerns of employees or customers being sick.
8. Employees request information about another employee's health condition.
9. Employees engage in collective or other protected activity to raise concerns about the return to work or workplace.
10. Nonexempt employees are emailing and/or working outside normal business hours.

9.3 Pandemic-related employee support

Consider updating policies related to the following:

1. Federal, state and local leave and accommodation entitlements.
2. Existing leave policies.
3. A pandemic-related paid leave policy so employees do not have to exhaust their existing PTO. This reduces the risk of employees coming in sick.
4. Extended unpaid pandemic leave policy to address situations when employees are unable or unwilling to work during or following a pandemic. Develop protocols for requesting documentation in compliance with federal, state or local laws. Examples:
   - employees with school-aged children whose schools are closed
   - employees with family caregiving responsibilities
   - employees experiencing general, nonclinical anxiety
   - employees who are part of vulnerable populations (e.g., older employees, employees with physical or mental disabilities or immunocompromised conditions, pregnant employees)
   - employees with household members in vulnerable populations
   - employees who prefer to remain on furlough/leave receiving government benefits
   - employees who live with or care for someone who is in a vulnerable population
5. Early retirement packages.
6. Long-term trauma and grief counseling through applicable employee assistance programs.
7. Internal programs to assist employees with finances, essential services, etc.

8. Information to employees about local, regional, and national recovery support programs (e.g., economic impact payments, loan programs, tenant protections).
9. Transparency with employees about all ongoing internal initiatives designed to support their health and well-being.
10. Frontline "hero pay" (job- and risk-based, not the same as hazard pay).

9.4 Training

All training should be conducted in accordance with social distancing guidelines. Consider the following:

1. If service adjustments were made as a result of the pandemic response and, as a result, new operator training is suspended, this should not mean training stops. Rather, this should be taken as an opportunity to address outstanding training gaps.
2. If service reductions resulted in a larger available group of idle operators than normal, then take the opportunity to accelerate recertification/refresher training. This will provide an opportunity to discuss the immediate pandemic concerns and help to model the way through.
3. Conduct a full assessment of current training curriculum and update as needed.
4. Conduct training workshops for training staff to build their skills as educators, focusing on adult learning concepts, building training standards and ensuring defensible testing mechanisms.
5. If there are elements of training that cannot be continued due to social distancing concerns, such as new rail operator training (with trainer and operator sharing the space in the cab), these activities should be suspended. However, if possible, maintain certifications of operators who might have been furloughed or laid off by requiring them to operate enough trips during the time of reduced service to maintain their certification until brought back to regular service. That will prevent delays upon resumption of service.
6. Expedite recertification for operators with expired or extended licenses. If possible, coordinate with the state DMV and DOT medical examiner to prioritize DOT medication certification and CDL renewals prior to service resumption.
7. Cross-train employees to perform essential functions. For example, if a reduction of service reduces the agency's need for operators but increases its need for service workers to clean revenue vehicles and facilities, cross-train employees to temporarily take on those roles until they are again needed in their original roles, while still enabling them to maintain their certifications.
8. Reeducate employees about physical security and cybersecurity practices. If employees are teleworking, provide guidance on cybersecurity and remote access. If possible, a section of the agency's employee-facing intranet landing page should reinforce this guidance.
9. Reeducate employees about safety requirements and practices.
10. Reeducate employees about existing benefits, to include physical and mental health resources; employee assistance programs; health, life and disability insurance; and PTO. Consider strengthening offerings and/or providing increased flexibility within these benefits and/or programs if possible.
11. Increase virtual training opportunities to maintain social distancing.
12. Develop guidance and training for the use of PPE. This is most effective when delivered regularly through multiple avenues: signage, bulletins, videos, website and live tutorials.
13. Ensure that training opportunities exist for any outside contractor providing services to the agency related to any ongoing modifications to pre-pandemic processes or expectations.
14. Understand ramifications and alternatives to driver motor vehicle facility closures.
15. Ensure that medical resources officers (MROs), medical DOT card certifiers, and drug and alcohol testing sites are in operation, adequately staffed and complying with appropriate pandemic responses.
16. Conduct training and exercises to evaluate and strengthen preparedness planning and operations.
17. Develop guidance and training for best practices related to managing virtual teams.
18. Incorporate lessons learned and new tasks into training program, such as use of screening passengers over the phone for trip booking, use of thermometers to scan employees, etc.

19. Refresh and expand de-escalation training to include interactions with aggressive, anxious or symptomatic passengers.
20. Members of the leadership team and any other necessary employees should receive National Incident Management System (NIMS) training.

9.5 Travel policies

If agency travel was suspended during the active phases of the pandemic, consider reinstating pre-pandemic travel policies with a phased approach, in alignment with local and state guidance. Policies should clearly identify the variables that influence travel decisions. Determine when to roll back restrictions and what conditions will trigger moving to the next phase or reverting to a previous and more restrictive phase. Transit agencies also should determine an approach for employees whose responsibilities require travel, but who are afraid to do so even after restrictions are lifted.

Monitor CDC pandemic tracking by region, and ensure that travel decisions are based on the most current data available.

9.6 Other employment policies

Consider updating policies related to the following:

1. Ask all employees who do not seek accommodations to sign acknowledgments confirming their informed consent to work during a pandemic.
2. Revisit employee procedures, and revise with any changes expected to continue into the medium or long term, potentially including the following:
    * timekeeping and worked time reporting
    * approval processes
    * infectious disease policy
    * social distancing guidelines/policy
    * bereavement policy
3. Work with field employees to adapt Job Safety Analyses/Job Hazard Analyses (JSAs or JHAs) to clarify job steps or procedures that have changed under pandemic or post-pandemic conditions. Solicit feedback from the field about how the revisions do and don't work, and fine-tune as needed.
4. Assess and, if necessary, revise protocols for sharing related illness and/or death notifications to staff, as appropriate and accordance with HIPAA.
5. Assess and, if necessary, revise flexible paid time off and sick leave policies or donation programs. FFCRA provisions. Prepare employee communications plan for the sunsetting of the FFCRA, currently scheduled for Dec. 31, 2020.
6. Assess and, if necessary, adjust benefits enrollment periods and processes, including the option for virtual benefits education and enrollment. Determine if the agency will require benefits waiting periods for returning employees. Review availability of telemedicine services under the benefits plan, and communicate these options to employees, or consider adding them.
7. Consider any provisions that may need to be bargained with labor unions regarding new protocols or other changes to policies and procedures resulting from the pandemic. This could include topics like the following:
    * return-to-work protocols
    * PPE availability and employee compliance (if wearing is mandatory)
    * paid and unpaid leave provisions
    * safety protocols
    * employee contact protocols (e.g., guidance for serving customers who are not wearing face coverings)

9.7 Employee engagement

If a majority of transit agency employees are working from home, the lack of "face time" with co-workers can cause disengagement. Consider conducting a survey of teleworking employees to determine their perception of communication levels, manager engagement, and the availability of adequate resources and support.

Agencies should carefully consider the reoccupation of offices. Consider the following:

- Which positions are most significantly negatively impacted by being performed at home
- Which employees were or were not successful in productively working from home
- The ability to provide safe and recommended social distancing space
- Employee preference (and manager agreeability) to remain working at home
- Alternating on- and off-campus workdays to enhance social distancing and reduce impact of potential quarantine
- Approach for considering and approving/rejecting teleworking requests
- New accommodations that some employees may need when returning to work
- Exceptions for employees with high-risk health conditions
- Exceptions for employees with continuing childcare issues

If employees have been furloughed for some time, consider the need for onboarding and forms completion, benefits reenrollment, refresher retraining and drug testing.

Determine a plan for employees who aren't able or willing to return to work. Engage in good-faith dialogue with the employee, using the ADA interactive process as applicable. Explore options for they employee to perform the work from home.

For employees who are returning to the worksite, determine what measures will make them feel safe at work. If possible, establish ways to replicate community-building activities with social distancing guidelines.

For new employees starting as teleworkers, design "virtual" onboarding programs to encourage connection to the agency and co-workers.

9.8 General future planning

Take steps to prepare the human resources department for future emergencies:

1. Develop "lessons learned" from the pandemic. Consider surveying managers and/or frontline employees.
2. Review technology to enhance and improve remote work capabilities, including privacy and security issues.
3. Cross-train employees when possible so they are able to temporarily step in and essential functions during a crisis.
4. Expand, develop or leverage geographically diverse work populations.
5. Procure appropriate sources of PPE.
6. Consider strategies for potential furloughs, closings or reductions in force:
   - Revisit former employee notices and communications to compare against any updated requirements or developments.
   - Consult any state/local updated orders.
7. Revise budget requests, including forecast for revenue and expenses.
8. Revisit wellness and health offerings to respond to employee physical, mental and emotional health needs.

9. Determine temporary practices to implement regarding travel restrictions, more aggressive social distancing practices, sanitization and other efforts to minimize exposure and spread.
10. Conduct a review of all pandemic response policy amendments and additions. Consider the potential benefit of perpetuating any of these changes.

10. Security

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

10.1 Cybersecurity

During the timeframe when work-from-home policies are put into effect, and subsequently as transit offices are reoccupied and service restored, it's critical to ensure that employees' memories are refreshed about the importance of cybersecurity. The rate of cyberattacks on public agencies increased after the COVID-19 pandemic took hold in the United States in March 2020.

Every agency should have established a baseline for typical alarm level, alerting frequency and statistics such as the rate of attempts to access the organization's networks. Before restoring full service, this pre-pandemic baseline information should be compared with the current state. Variances may be an indicator the network or system should be more closely examined for anomalies and unauthorized access.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Review cybersecurity operations against alarm level baseline.
- ✓ Visually review systems that are not on the "network" (sensors, fiber, connections, signaling).
- ✓ Review/update cybersecurity insurance policy if applicable.
- ✓ Perform internal and external network scan of all IT systems, specifically OT systems (SCADA, CAD/AVL, etc.)

    > **NOTE:** For example, scan for remote access Trojans capable of exfiltrating sensitive documents, keystrokes, passwords and even images from the webcam.

- ✓ Create agency-wide cybersecurity education and training campaigns targeting the flexible work environment (on-site and work from home).
- ✓ Check services outsourced to any third-party's access (e.g., hosting providers, service providers, data processing vendors) and update third-party protection plans.
- ✓ Review and update the COOP and other emergency management plans with lessons learned, adapting and integrating technology for combined technologies (remote work, virtual public hearings and meetings, etc.).
- ✓ Determine whether the Business Continuity Plan includes a verified list of the essential roles and individuals included in reentry.
- ✓ Confirm that contingency plans/critical response mechanisms are in place in the event that the reopening should fail or the virus has a second wave, forcing additional closures.
- ✓ Review access granted during crisis (special review, privileged access, VPN accounts, etc.).
- ✓ Identify gaps in mobile device security used (MDM, mobile web filtering, MFA, etc.).
- ✓ Review file storage and access procedures for remote workers (data copied to PCs/laptops during crisis, cloud storage synchronization settings, approved collaboration tools).
- ✓ Review mobile device patch management.

- ✓ Review system/network access protocols to improve security (MFA, VPN posturing, cloud services security, etc.).
- ✓ Update policies for remote work and/or telecommuting.
- ✓ Review network/system access control (MFA/2FA, device).
- ✓ Evaluate endpoint antivirus protection.
- ✓ Review zero-day anomaly detection.
- ✓ Review incident response plans and training.

10.2 Physical security

In coordination with, or using data from, local intelligence centers, fusion centers and the U.S. Department of Homeland Security, transit security forces should review and revise physical security procedures in light of the current pandemic phase. In consultation with these sources, transit agencies should work to determine triggers for returning to pre-pandemic procedures.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Establish partnerships with community stakeholders such as the Department of Social and Health Services to provide resources for non-destination riders.
- ✓ If not already part of the security protocol, consider implementing full security sweeps at the terminus stations at each end of a line, looking for safety, security or biohazard issues.
- ✓ Consult with agency counsel's office and local prosecutor's office on enforcement of passenger PPE rules, which can be difficult to enforce.
- ✓ Provide liaising support with other jurisdictions for mutual aid.
- ✓ Review and update critical assets list and ensure that all assets are properly protected based on current security enterprise risk management information.
- ✓ Limit entry access points into facilities.
- ✓ Phase civilian non-sworn personnel who were ordered to telework back to normal duties.
- ✓ Return sworn personnel usually assigned to casual-clothes assignments (detectives/investigators) who were put in uniform for the pandemic back to normal duties.
- ✓ Lift restrictions placed on enforcement activity proportionate to ridership and crime increases.
- ✓ Consider decentralizing roll calls and using technology such as Skype, conference lines and other applications to facilitate virtual meetings while conditions warrant.
- ✓ Adjust law enforcement shifts as necessary to stay aligned with current service hours.
- ✓ Consider what triggers will end social distancing practices that were implemented for police and security (e.g., only one officer allowed in a vehicle).
- ✓ Continue to issue additional PPE to all officers and security personnel.
- ✓ Consider a phased approach to lift restrictions on visitors to transit properties, including vendors making necessary deliveries.
- ✓ Create a code in the security record management system to track all events and reports specific to the pandemic.

  NOTE: These initiatives can assist in archiving activities and costs.

- ✓ Work with community police departments as necessary to assist with social distancing once a significant number of riders have returned to the system.

✓ Clearly define what the expectation of enforcement means in regards to social distancing, requirements for PPE and fare enforcement.

> **NOTE:** Develop a communications plan to the public that clearly describes what actions the agency will and will not take regarding enforcement. Does enforcement mean attempting to gain voluntary compliance? Does it mean denial of service prior to boarding a vehicle? Does it come with sanctions, or will it be compelled by force? Emphasize these expectations with operations, security and law enforcement personnel.

11. Additional considerations for paratransit

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

Social distancing is even more of a challenge in smaller paratransit vans. Systems providing paratransit also should monitor their compliance with government mandates/executive orders: Restrictions put in place may conflict with not allowing denied rides based on trip purpose.

Agencies should consider the following items for inclusion in their PVSRC:

✓ Consider providing masks or other PPE to all passengers.
✓ Consider incidental use of transit vehicles to support social distancing for vulnerable populations, such as with grocery deliveries.
✓ Explore feasibility of eliminating shared rids on paratransit vehicles.
✓ For ADA complementary service, ensure that the fare structure is consistent with fixed-route fares and FTA requirements.
✓ Train trip bookers and scheduling to address changes in operations due to the pandemic and resumption of full service.
✓ Update scripts for employees to use on calls and in passenger interactions in light of the current pandemic phase.
✓ Schedule a town-hall style conference call with employees to answer questions and to provide updates on safety measures and operations.

> **NOTE:** This would reduce need for in-person meetings and allow for recorded updates to be available for all employees on the different shifts.

✓ Update all communications channels to reflect restored status, new procedures and/or policies, including vehicle signage, posters, memos, electronic signage, websites, social media, IVR messaging, etc.
✓ Review service reductions, shutdowns, fare changes, policy changes, etc. for future regulatory compliance reviews and audits.
✓ Compile a notification packet for recalled employees containing information about changed procedures and policies.
✓ Update MOUs with partner agencies and contractors.
✓ Review and update emergency services provided to community agencies.

12. Continuous emergency management monitoring

> **NOTE:** The best-practice recommendations provided in this section are not prescriptive but are intended to provide information about possible approaches to developing a PVSRC. Not every suggestion will be applicable to every pandemic outbreak, every community or every transit agency.

Alongside all pandemic service restoration actions, agencies should establish continuous emergency management monitoring and planning on an active, emergency-response basis.

Agencies should consider the following items for inclusion in their PVSRC:

- ✓ Maintain situational awareness of local, regional, national and global pandemic waves.
- ✓ Maintain situational awareness of local, regional, national and global economic developments and their impact on both the organization and the transit industry.
- ✓ Confirm that appropriate local, state, regional and federal organizations approve of increasing/resuming service, as required.
- ✓ Conduct a full after-action review of the initial pandemic response, sharing best practices with the transportation community.
- ✓ Review and update the COOP and other emergency management plans with lessons learned.
- ✓ Reassess essential functions and evaluate internal emergency management capabilities, communication and processes.
- ✓ Track adjustments in parameters by which appropriate local, state, regional and federal organizations will approve planned service adaptations.
- ✓ Revise plans, policies, programs and procedures based on identified areas for improvement (e.g., updates to emergency pandemic plans, vehicle cleaning procedures).
- ✓ Work to the data-driven thresholds, expanding and contracting service accordingly, recognizing that full recovery from a significant disruption is a long-term process.
- ✓ Continuously assess essential functions and evaluate internal emergency management capabilities, communication and processes.
- ✓ Continuously assess capacity of personnel across executive, management and frontline ranks to sustain service.
- ✓ Examine opportunities to modernize prevention, protection and response solutions to a public health emergency, including contactless payment systems, no-touch thermometers and other technologies.
- ✓ Communicate through a standardized instrument/document that can be customized and updated daily as needed (a Situation Report).
- ✓ Conduct virtual "just-in-time" training and exercises to both internal and external audiences to evaluate and strengthen preparedness planning and operations.
- ✓ Establish procedures and protocols to maintain a common operating picture of both response-related operations as well as the maintenance of mission-essential functions.
- ✓ Act as a "warehouse" for documenting all internal plans, processes and activities conducted in response to the pandemic.
- ✓ Conduct a business impact analysis (as resources allow) to include operational, economic, administrative and social effects, considering both the organization and the transit industry writ large.
- ✓ Identify and assess readiness of equipment, supplies, assets and facilities required to increase/resume service.
- ✓ Identify and assess readiness of personnel required across executive, management and frontline ranks to increase/resume service.
- ✓ Confirm availability of lines of communication among internal departments and staff, customers and the public, government stakeholders, unions, and private-sector partners (suppliers, contractors, etc.).

✓ Identify the triggers that would lead to a subsequent reduction of service as required to protect public health and safety in the case of a second wave of a pandemic virus.
✓ Confirm the functionality of emergency response and service reduction procedures prior to restoring service.
✓ Calculate, forecast and monitor costs, revenue and recovery time for a second wave of the virus, using current local, regional, national and global pandemic incident and economic impact data.

12.1 Communications with state and local emergency management

Communication with state and local emergency management is not just about building a consistent message. This is also the opportunity to educate state and local governments about the complexities and unique needs of mass transportation and to seek help and guidance in managing those needs, with an ultimate goal of building and jointly broadcasting a consistent message to the public. For example, it is critical that all parties understand the impact of physical distancing requirements on revenue vehicles and whether public use of masks or face coverings might be sufficient to reduce the standard recommended spacing.

Agencies should consider the following items for inclusion in their PVSRC:

✓ Designate an individual to serve on the local Emergency Operations Center (EOC), and then communicate to other members of staff who that individual is and how they will receive relevant updates.

   NOTE: Additional opportunities to appoint transit staff may arise and should also be communicated with the larger group.

✓ Ensure that agency officials knowledgeable about operations have a seat in local and state EOCs during major activations/operations that impact transit.
✓ Coordinate communications with local and state emergency management so the message stays consistent.
✓ Communicate transit asset availability to emergency management.
✓ Activate the Emergency Operations Control Center (EOCC).
✓ Based on NIMS Incident Command Systems (ICS) guidelines, assign EOC officers, section chiefs and unit leads to staff with appropriate authority and experience.
✓ Schedule consistent meetings, and allow other non-EOC department managers to join as guests.
✓ Validate and approve situation status reports communicated to internal, external and emergency management entities.

Related APTA standards

APTA-SS-SEM-S-005-09, "Establishing a Contagious Virus Response Plan"
APTA-SS-SEM-S-001-08, "Continuity of Operations Plan for Transit Agencies"

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Definitions

critical infrastructure workers: Workers, including mass transit workers, who conduct a range of operations and services that are essential to continued critical infrastructure viability.

essential workers: The personnel needed to maintain essential services in a community.

second wave: A phenomenon of new viral infections in a population after the level was initially appearing to decrease.

social distancing: A set of actions taken to stop or slow the spread of a highly contagious disease by limiting face-to-face contact or crowded community settings.

Abbreviations and acronyms

2FA	two-factor authentication
ADA	Americans with Disabilities Act
AIHA	American Industrial Hygiene Association
CAD/AVL	computer-aided dispatch/automatic vehicle location
CARES	Coronavirus Aid, Relief, and Economic Security Act
CCTV	closed-circuit television
CDL	commercial driver's license
COBRA	Consolidated Omnibus Budget Reconciliation Act
COOP	Continuity of Operations Plan
CDC	Centers for Disease Control and Prevention
CVRP	Contagious Virus Response Plan
DMV	Department of Motor Vehicles
DOT	Department of Transportation
EHS	Environment, Health and Safety
EOC	Emergency Operations Center
EOCC	Emergency Operations Control Center
EPA	Environmental Protection Agency
FFCRA	Families First Coronavirus Response Act
FLSA	Fair Labor Standards Act
FTA	Federal Transit Administration
GINA	Genetic Information Nondiscrimination Act
HEPA	high-efficiency particulate air
HIPAA	Health Insurance Portability and Accountability Act

ICS	Incident Command Systems
IT	information technology
IVR	interactive voice response
JHA	Job Hazard Analysis
JSA	Job Safety Analysis
MDM	mobile device management
MFA	multifactor authentication
MOU	memorandum of understanding
MRO	medical resource officer
NATSA	North American Transportation Services Association
NCHRP	National Cooperative Highway Research Program
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
OT	operational technology
PC	personal computer
PPE	personal protective equipment
PTO	paid time off
PVSRC	Pandemic Virus Service Restoration Checklist
SCADA	supervisory control and data acquisition
TRB	Transportation Research Board
WHO	World Health Organization
VoIP	Voice over Internet Protocol
VPN	virtual private network

Appendix A: Sample Pandemic Virus Service Restoration Checklist

NOTE: Agencies can use this template to develop a checklist to aid it in restoring service after a pandemic virus has impacted its ability to deliver normal service. Agencies should ground their checklists in the data, requirements, plans and policies provided by their state and local governments and health departments. Note that not every checklist item will be applicable to every agency or every community.

PANDEMIC VIRUS SERVICE RESTORATION CHECKLIST

Decontamination (reference Section 2.1)	
Task	**Responsibility**
☐ Establish daily cleaning procedures for equipment, vehicles and facilities based on CDC guidelines.	
☐ Create a checklist for cleaning staff that specifies all areas requiring cleaning and decontamination and requires the employees' signatures.	
☐ Develop written procedures for cleaning high-touch areas.	
☐ Consider posting "last cleaned" signage."	
☐ Instruct employees and the public to practice routine cleaning and disinfection of hands, frequently touched surfaces and workspaces.	
☐ Identify workgroups where employees are required to share equipment, and create a policy requiring employees to decontaminate shared equipment after use.	
☐ Use alcohol-based wipes or spray and paper towels to decontaminate shared equipment after use.	
☐ Instruct employees on cleaning of personal items such as desk, keyboard and mouse.	
☐ Remind employees of cough/sneeze etiquette.	
☐ Supply operators with cleaning materials, and task them with decontaminating high-touch areas on coaches during layovers.	
☐ Adjust building ventilation controls to allow for increased circulation of outdoor air.	
☐ Establish a process to regularly clean air filtration systems.	
☐ Create a decontamination response plan if a passenger or employee reports a positive virus test, including a procedure for decontaminating all locations exposed to that person.	
☐ Establish a procedure for sanitizing locations when notified that an employee has tested positive or has been quarantined due to exposure.	
☐ Determine triggers for when decontamination procedures can return to pre-pandemic levels.	
☐ Prop open high-traffic doors, without compromising safety or security, so they do not have to be touched.	
☐ Install foot-operated door pulls, without compromising safety or security, for high-traffic doors.	
☐ Encourage all employees to change clothing before and after shifts to avoid wearing work clothes home.	
☐ Install hand sanitizer dispensers on transit vehicles.	
☐ Stock break rooms, kitchens, restrooms and other areas where there are high-touch surfaces with disinfecting wipes, hand sanitizer and other applicable cleaning solutions.	
☐ Remove communal coffee stations or water coolers from workspaces; shut off water fountains and encourage employees to use personal beverage vessels.	

Decontamination (reference Section 2.1)	
Task	**Responsibility**
☐ Create written procedures requiring maximum ventilation on revenue vehicle HVAC systems.	
☐ Where practical, remove trash lids that require touch, ensure that all outdoor disposal receptacles do not require touch, and line all receptacles, including those on coaches.	
☐ Where practical, remove shared equipment such as workroom staplers and three-hole punches.	

Testing, screening and reporting (reference Section 2.2)	
Task	**Responsibility**
☐ Determine the need for testing or screening employees, especially employees returning to work after an absence.	
☐ Identify personnel or vendors to conduct testing or screening, including required training or qualifications.	
☐ Establish screening policy/procedures for staff before their entry into agency facilities.	
☐ Provide instructions to employees to self-monitor throughout the day and report any changes in symptoms.	
☐ Establish a means of identifying personnel that have been screened and are clear to work (e.g., disposable wristbands that have a different color for each day of the week).	
☐ Develop a procedure for notifying employees of any possible exposure in the workplace.	
☐ Establish easy-to-use lines of communication for field employees to report virus-related hazards, such as by adapting near-miss/close-calls reporting systems.	
☐ Create a Pandemic Incident Report to enable contact tracing.	
☐ Establish and instruct employees for procedures on identifying and reporting virus symptoms.	
☐ Establish an isolation location for employees who experience symptoms while working.	
☐ Establish a procedure for employees to travel safely home if they experience symptoms while working.	
☐ Create a return-to-work policy in accordance with CDC guidelines for employees exposed to the virus.	

Social distancing aboard vehicles (reference Section 2.3.1)	
Task	**Responsibility**
☐ Identify and plan to enforce maximum seated and standing capacity per vehicle size/type.	
☐ Increase service levels to accommodate social distancing.	
☐ Create a social distancing strategy for nonrevenue vehicles.	
☐ Use covers, signs or decals to prevent use of some vehicle seats in order to create social distancing space.	
☐ Create physical barriers such as chains or mark out intervals to facilitate social distancing on vehicles.	
☐ Implement rear-door boarding and alighting, except for passengers who need a ramp or lift.	
☐ Temporarily waive fares.	
☐ Temporarily suspend fare collection enforcement.	
☐ Move fare card readers to rear doors.	
☐ Implement contactless fare collection methods.	

Social distancing aboard vehicles (reference Section 2.3.1)	
Task	**Responsibility**
☐ Install temporary or permanent enclosures (such as Lexan or Plexiglas) around the operator's seat.	
☐ Post signage in vehicles explaining social distancing rules.	
☐ Develop a policy for bypassing stops if a bus has reached capacity.	
☐ Consider increasing number of buses in service or using larger buses to help passengers stay apart.	
☐ Consider reserving a railcar for the elderly and vulnerable population.	
☐ Consider closing first and last railcars to passengers, where practicable based on consist passenger capacity, to limit operator exposure.	
☐ Establish a method for reporting vehicles at or over capacity.	
☐ Assess which vehicles are over the loading guidelines, and monitor for trends.	
☐ Make onboard announcements or post signage about precautionary measures being taken.	
☐ Increase service to essential locations such as hospitals and supermarkets.	
☐ Coordinate with local government and major local employers to encourage a steady level of system capacity throughout the day (i.e., through altering shift hours or encouraging telecommuting).	

Social distancing in stations and boarding areas (reference Section 2.3.2)	
Task	**Responsibility**
☐ Install footprint decals or other separators on floors to create appropriate social distancing space.	
☐ Use partitions (such as Lexan or Plexiglas) to increase physical space between employees and customers.	
☐ Evaluate maintenance and facility personnel tasks for threats to social distancing, and implement protective measures for these employees and contractors.	
☐ Coordinate with police, emergency management and local businesses to assist with crowd control.	
☐ Assess which stations are over the loading guidelines, and monitor for trends throughout the day.	
☐ Develop a system to report over-loading conditions to the public, especially when passenger demand outpaces vehicle capacity.	
☐ Coordinate with local government and major local employers to encourage a steady level of system capacity throughout the day (i.e., through altering shift hours or encouraging telecommuting).	
☐ Provide temporary restroom facilities at key locations.	
☐ Add signage to discourage customers from boarding full vehicles.	
☐ Waive fares or suspend fare enforcement until measures are in place to maximize social distance between riders and operators.	
☐ Consider implementing contactless fare collection methods.	

Social distancing in office spaces (reference Section 2.3.3)	
Task	**Responsibility**
☐ Implement or extend the use of flexible worksites (e.g., telework).	
☐ Implement or extend flexible work hours (e.g., staggered shifts).	
☐ Increase physical space between employee workstations.	
☐ Establish barriers (such as Lexan or Plexiglas) between office workspaces that cannot be separated and in any areas where employees may have contact with the public.	
☐ Develop guidance to ensure social distancing on elevators.	
☐ Install footprint decals around elevators and common areas to illustrate social distancing space.	
☐ Evaluate and redesignate maximum capacity/seating in conference rooms, break rooms and cafeterias, and remove chairs that would exceed those limits.	
☐ Encourage employees with offices and cubicles to take their breaks in their private spaces.	
☐ Repurpose conference rooms as break areas for employees who do not have their own cubicles or offices.	
☐ Consider assigning staggered breaks so employees aren't crowding into shared areas at one time.	
☐ Evaluate traffic flow throughout the office space and provide visual cues such as arrows to designate direction of travel.	
☐ Allow employees to drive personal vehicles to worksites.	
☐ Protect mission-critical locations like control centers by dispersing employees to backup control centers.	
☐ Arrange for services to be provided remotely (e.g., phone, video or web).	
☐ Implement flexible meeting and travel options (e.g., postpone nonessential meetings or events).	
☐ Require or recommend that meetings be held virtually, using available videoconferencing technology.	
☐ Limit on-site visitors to essential visitors only.	
☐ Arrange to have products and mail delivered in a contactless fashion.	
☐ Remove or restrict access to communal coffee stations or water coolers.	

Personal protective equipment (reference Section 2.4)	
Task	**Responsibility**
☐ Assess health risks to employees, contractors and passengers, and resource personal protective equipment for their use.	
☐ Formalize PPE policies for employees, contractors and passengers.	
☐ Communicate PPE policies to employees, contractors and passengers.	
☐ Enforce PPE policies for employees, contractors and passengers.	
☐ Establish plan for distributing PPE to employees, contractors and passengers.	
☐ Monitor stockpiles and restock PPE.	
☐ Provide PPE that complies with reasonable accommodations, such as latex-free gloves or modified face masks.	
☐ Communicate PPE hygiene to workers and post guidelines in a visible area.	
☐ Create procedures for managers to confirm that employees have required PPE and ensure that PPE is being used appropriately as directed and required.	

Personal protective equipment (reference Section 2.4)	
Task	**Responsibility**
☐ Create policies for operators and other frontline personnel to use gloves when handling lost items.	
☐ Determine PPE requirements for each employee classification, create PPE kits for each classification with instructions on how to replenish supplies.	

Procurement of safety equipment (reference Section 2.5)	
Task	**Responsibility**
☐ Monitor stockpiles and restock PPE, cleaning supplies and other public health products.	
☐ Evaluate and retain support contractors to conduct and/or supplement future operational and cleaning services.	
☐ Evaluate supply chains for key pandemic response supplies.	
☐ Create a process for limiting person-to-person contact while transferring materials.	
☐ Create specific supply lists by employee classification.	

Facilities (reference Section 3)	
Task	**Responsibility**
☐ Prioritize critical regulatory activities that must continue, including inspections and signal testing.	
☐ Establish a plan for cleaning and inspecting the facilities before reoccupying, including HVAC and mechanical checks.	
☐ Establish a cleaning area and/or protocol for the cleaning of shared tools.	
☐ Establish protocols for wellness checks, visitor policies, building reception, and shipping and receiving.	
☐ Add markings, barriers or revised traffic patterns to workplaces to aid social distancing.	
☐ Stock all workplaces with appropriate PPE.	
☐ Establish workforce policies determining who will come back to work and when.	
☐ Establish emergency employee communication protocols.	
☐ Establish touchless ingress and egress procedures.	
☐ Increase cleaning frequency throughout the facility, particularly in restrooms.	
☐ Institute a clean-desk policy to aid daily cleaning.	
☐ Post accessible guidelines for handwashing, sanitizing, PPE use and social distancing.	
☐ Review information technology equipment and policies, including access permissions, virtual connectivity and cybersecurity protocols.	
☐ Carefully evaluate planned capital enhancement projects to determine whether pandemic conditions warrant their delay or acceleration.	
☐ Add a "last cleaned" board or sign for restrooms.	
☐ Post occupancy limits for common areas.	

Rolling stock (reference Section 4)	
Task	**Responsibility**
☐ Establish plans to rotate use of rolling stock when feasible.	
☐ Maintain a log for in-service and out-of-service mileage.	
☐ Restock tickets, cash, schedules and other materials.	

Rolling stock (reference Section 4)	
Task	**Responsibility**
☐ Review information technology equipment and policies, including access permissions, virtual connectivity and cybersecurity protocols.	
☐ Update signage to match the service restoration level.	
☐ Add social distancing equipment or signage to rolling stock.	
☐ Update communications regarding policy and procedure changes to employees and the public.	
☐ Ensure the proper security protection for rolling stock that is no longer in service.	

Communications with employees and labor organizations (reference Section 5.1)	
Task	**Responsibility**
☐ Display accessible notices at all facilities and worksites explaining safety requirements, including decontamination; testing, screening and reporting; social distancing; and PPE.	
☐ Display accessible notices at all facilities and worksites listing virus symptoms and risk factors; directions for cleaning keyboard, mouse, etc.; and sneeze/cough etiquette.	
☐ Develop an intranet landing page for ongoing pandemic communications, including any policy changes, how-to videos, and resources from government and health partners supporting ongoing mitigation.	
☐ Use photos to show employees suggested safe loading, as well as unsafe loading practices.	
☐ Ensure that intranet materials are also available to employees or contractors who do not have email access or access to the intranet.	
☐ Establish and maintain virtual town halls as an avenue to communicate next steps.	
☐ Conduct safety stand-down/toolbox talk/tailgate training at the beginning of each shift for all workgroups, excluding operations, to explain the protective measures	
☐ Establish and maintain a newsletter to keep employees, executives and board members informed.	
☐ Release safety department bulletins to provide direction and clarity on changes to established business practices.	
☐ Designate one employee for each workgroup and shift to be responsible for monitoring and enforcing health and safety mitigations (social distancing, PPE, etc.).	
☐ Provide ongoing and repeated education about virus protection strategies via videos, webinars and FAQs.	
☐ Distribute exposure protocols guidance document to managers of all employees, to ensure that all are adhering to the same requirements.	
☐ Develop responses for questions and concerns raised by symptomatic people in the transit system.	
☐ Ensure that all communications include the appropriate means of reporting concerns and questions.	

Communications with the community and riding public (reference Section 5.2)	
Task	**Responsibility**
☐ Establish a point person to coordinate delivery of messages to the public.	
☐ Develop a media plan, and identify agency employees who will communicate with riders (station clerks, dispatchers, train crews, customer service, etc.).	
☐ Coordinate communications efforts with government and health officials, APTA, CDC and/or WHO when possible.	

Communications with the community and riding public (reference Section 5.2)	
Task	**Responsibility**
☐ Develop coordinated responses for difficult and frequently asked questions.	
☐ Ensure that the agency is communicating all social distancing requirements, PPE guidelines, and efforts to clean and decontaminate stations and vehicles.	
☐ Communicate the need to give priority to essential workers.	
☐ Monitor real-time crowd conditions in stations and on vehicles using operating personnel, real-time load data, CCTV, etc., and communicate these to the public.	
☐ Track hourly trends and report them to the public to help riders avoid crowd conditions.	
☐ Design a marketing campaign to speak to "How clean is clean?" and engage a public official or popular figure to be the face of the effort.	
☐ Leverage existing static and electronic signage and public address systems to communicate public health initiatives.	
☐ Leverage websites, signage, earned media, social media and all operations staff who communicate with riders.	
☐ Leverage email marketing lists to communicate rule changes and other public health initiatives.	
☐ Anticipate and prepare for an increased level of customer service requests and questions.	
☐ Consider modifying existing "See Something, Say Something" messaging to specifically call out unsafe conditions of revenue vehicles and platforms.	
☐ Place photos in stations, at stops and on vehicles to show examples of safe and unsafe vehicle loading.	
☐ Communicate plainly any enforcement actions the agency will and will not take regarding social distancing or PPE requirements.	
☐ Reaffirm public affairs guidance with all employees and confirm media points of contact.	

Communications with partner agencies, vendors and specialized services (reference Section 5.3)	
Task	**Responsibility**
☐ Review contracts, MOUs, etc., and update for current service levels.	
☐ Consider the impact of possible future pandemics or a second wave on these agreements.	

Communications with the board of directors (reference Section 5.4)	
Task	**Responsibility**
☐ Schedule regular updates with the board and chairman.	
☐ Provide the board with information about health and safety measures being taken.	
☐ Provide the board with information concerning status of facilities and rolling stock.	
☐ Provide the board with information about the activities of legal affairs, financial affairs, human resources, information technology and security staff.	
☐ Provide the board with information related to communication to employees, the public and the media.	
☐ Provide the board with information about emergency procurements and inventory.	
☐ Provide the board with information about continuous emergency management monitoring.	

Communications with health and governmental officials (reference Section 5.5)	
Task	**Responsibility**
☐ Reaffirm contacts with local, state and federal government stakeholders.	
☐ Advocate for resources to maintain service during the viral pandemic emergency.	
☐ Advocate for resources to control crowding in stations and on vehicles.	
☐ Advocate for resources and infrastructure that enable transit to increase service frequency if necessary for social distancing or to enhance service to essential locations.	
☐ Advocate for political support to prevent a return to car culture.	

Legal affairs (reference Section 6)	
Task	**Responsibility**
☐ Update pandemic health and safety plan.	
☐ Update policies around disability and leave of absence management.	
☐ Update policies around employment issues.	
☐ Update Environment, Health and Safety (EHS) notices.	
☐ Update labor policies.	
☐ Update privacy, data and cybersecurity protocols.	
☐ Update policies allowing electronic signatures.	
☐ Update wage and hour policies.	

Financial affairs (reference Section 7)	
Task	**Responsibility**
☐ Calculate, forecast and monitor costs, revenue and recovery time, including short-term (e.g., six-month) and long-term (e.g., 12-month) projections.	
☐ Compute the accounting of virus expenses by operating expense categories.	
☐ Calculate, forecast and monitor costs, revenue and recovery time for a potential second wave of the virus.	
☐ Implement options and actions to correct revenue shortages with several models for consideration.	
☐ Assess and mitigate impacts on insurance and other risk-management activities and self-insuring business areas.	
☐ Develop and coordinate a strategy to steward emergency government funding effectively and efficiently (e.g., CARES Act, Federal Transit Administration Emergency Relief Program), while considering future reauthorization funding.	
☐ Restore fare collection as soon as practicable to ease financial burden, while also considering safer fare collection methods.	
☐ Report alterations to hours, work assignments, purchasing, etc., in consistent detail to ensure eligibility and auditability.	
☐ Forecast costs and time to recover based on projected lost revenue.	
☐ Work with other departments to anticipate any likely contractual issues, to include potential force majeure notices from contractors and suppliers.	
☐ Mitigate delays in agency supply chain recovery by adapting financing protocols during emergencies to support essential functions.	
☐ Consider creating a mechanism or separate payroll job code to track any expenses and overtime created because of the pandemic.	

Information technology (reference Section 8)	
Task	**Responsibility**
☐ Review and update the COOP and other emergency management plans with lessons learned for adapting and integrating technology for remote work, virtual meetings, etc.	
☐ Assess capacity throughout and address security issues (VPN accounts, videoconferencing licenses, internet bandwidth, etc.).	
☐ Reevaluate any increase in support hours and determine if and how to restore normal hours.	
☐ Ensure that high-priority calling capacity is maintained for essential functions; ensure that bandwidths and licenses are adequate.	
☐ Review contracts for cell phones, hotspots, etc. to ensure continued service, or what can be reduced but remain as contingency operations.	
☐ Support satellite communications and VoIP technology to supplement communication platforms.	
☐ Review vendors added during the crisis (budget, access and contractual terms) to true up as needed.	
☐ True up licenses as usage of systems has shifted, either up or down.	
☐ Establish procedures to ensure that any equipment lent out is cleaned and scanned for malware or wiped and reloaded.	
☐ Review and update customer service call center procedures for combined on-site/remote operations.	
☐ Determine whether the Business Continuity Plan includes a verified list of the essential roles and individuals included in service restoration.	
☐ Evaluate and catch up on critical system maintenance and changes to support operations.	
☐ Confirm that contingency plans and critical response mechanisms are in place in the event that the reopening should fail or the virus should reoccur and force additional closures.	
☐ Conduct after-action review of all systems (e.g., what worked and didn't work for telecommuting).	

Human resources (reference Section 9)	
Task	**Responsibility**
☐ Establish modified work practices to enhance social distancing.	
☐ Anticipate pandemic-related employee scenarios.	
☐ Provide pandemic-related employee support.	
☐ Revise and institute training policies.	
☐ Revise and institute travel policies.	
☐ Review other pandemic-related employment policies.	
☐ Invest in employee engagement.	
☐ Plan for future pandemic response.	

Cybersecurity (reference Section 10.1)	
Task	**Responsibility**
☐ Review cybersecurity operations against alarm level baseline.	
☐ Visually review systems that are not on the "network" (sensors, fiber, connections, signaling).	
☐ Review/update cybersecurity insurance policy if applicable.	
☐ Perform internal and external network scan of all IT systems, specifically OT systems (SCADA, CAD/AVL, etc.)	
☐ Create agency-wide cybersecurity education and training campaigns targeting the flexible work environment (on-site and work from home).	
☐ Check services outsourced to any third-party's access (e.g., hosting providers, service providers, data processing vendors) and update third-party protection plans.	
☐ Review and update the COOP and other emergency management plans with lessons learned, adapting and integrating technology for combined technologies (remote work, virtual public hearings and meetings, etc.).	
☐ Determine whether the Business Continuity Plan includes a verified list of the essential roles and individuals included in reentry.	
☐ Confirm that contingency plans/critical response mechanisms are in place in the event that the reopening should fail or the virus has a second wave, forcing additional closures.	
☐ Review access granted during crisis (special review, privileged access, VPN accounts, etc.).	
☐ Identify gaps in mobile device security used (MDM, mobile web filtering, MFA, etc.).	
☐ Review file storage and access procedures for remote workers (data copied to PCs/laptops during crisis, cloud storage synchronization settings, approved collaboration tools).	
☐ Review mobile device patch management.	
☐ Review system/network access protocols to improve security (MFA, VPN posturing, cloud services security, etc.).	
☐ Update policies for remote work and/or telecommuting.	
☐ Review network/system access control (MFA/2FA, device).	
☐ Evaluate endpoint antivirus protection.	
☐ Review zero-day anomaly detection.	
☐ Review incident response plans and training.	

Physical security (reference Section 10.2)	
Task	**Responsibility**
☐ Establish partnerships with community stakeholders such as the Department of Social and Health Services to provide resources for non-destination riders.	
☐ If not already part of the security protocol, consider implementing full security sweeps at the terminus stations at each end of a line, looking for safety, security or biohazard issues.	
☐ Consult with agency counsel's office and local prosecutor's office on enforcement of passenger PPE rules, which can be difficult to enforce.	
☐ Provide liaising support with other jurisdictions for mutual aid.	
☐ Review and update critical assets list and ensure that all assets are properly protected based on current security enterprise risk management information.	
☐ Limit entry access points into facilities.	
☐ Phase civilian non-sworn personnel who were ordered to telework back to normal duties.	

Physical security (reference Section 10.2)	
Task	**Responsibility**
☐ Return sworn personnel usually assigned to casual-clothes assignments (detectives/investigators) who were put in uniform for the pandemic back to normal duties.	
☐ Lift restrictions placed on enforcement activity proportionate to ridership and crime increases.	
☐ Consider decentralizing roll calls and using technology such as Skype, conference lines and other applications to facilitate virtual meetings while conditions warrant.	
☐ Adjust law enforcement shifts as necessary to stay aligned with current service hours.	
☐ Consider what triggers will end social distancing practices that were implemented for police and security (e.g., only one officer allowed in a vehicle).	
☐ Continue to issue additional PPE to all officers and security personnel.	
☐ Consider a phased approach to lift restrictions on visitors to transit properties, including vendors making necessary deliveries.	
☐ Create a code in the security record management system to track all events and reports specific to the pandemic.	
☐ Work with community police departments as necessary to assist with social distancing once a significant number of riders have returned to the system.	
☐ Clearly define what the expectation of enforcement means in regards to social distancing, requirements for PPE and fare enforcement.	

Additional considerations for paratransit (reference Section 11)	
Task	**Responsibility**
☐ Consider providing masks or other PPE to all passengers.	
☐ Consider incidental use of transit vehicles to support social distancing for vulnerable populations, such as with grocery deliveries.	
☐ Explore feasibility of eliminating shared rids on paratransit vehicles.	
☐ For ADA complementary service, ensure that the fare structure is consistent with fixed-route fares and FTA requirements.	
☐ Train trip bookers and scheduling to address changes in operations due to the pandemic and resumption of full service.	
☐ Update scripts for employees to use on calls and in passenger interactions in light of the current pandemic phase.	
☐ Schedule a town-hall style conference call with employees to answer questions and to provide updates on safety measures and operations.	
☐ Update all communications channels to reflect restored status, new procedures and/or policies, including vehicle signage, posters, memos, electronic signage, websites, social media, IVR messaging, etc.	
☐ Review service reductions, shutdowns, fare changes, policy changes, etc. for future regulatory compliance reviews and audits.	
☐ Compile a notification packet for recalled employees containing information about changed procedures and policies.	
☐ Update MOUs with partner agencies and contractors.	
☐ Review and update emergency services provided to community agencies.	

Continuous emergency management monitoring (reference Section 12)	
Task	**Responsibility**
☐ Maintain situational awareness of local, regional, national and global pandemic waves.	
☐ Maintain situational awareness of local, regional, national and global economic developments and their impact on both the organization and the transit industry.	
☐ Confirm that appropriate local, state, regional and federal organizations approve of increasing/resuming service, as required.	
☐ Conduct a full after-action review of the initial pandemic response, sharing best practices with the transportation community.	
☐ Review and update the COOP and other emergency management plans with lessons learned.	
☐ Reassess essential functions and evaluate internal emergency management capabilities, communication and processes.	
☐ Track adjustments in parameters by which appropriate local, state, regional and federal organizations will approve planned service adaptations.	
☐ Revise plans, policies, programs and procedures based on identified areas for improvement (e.g., updates to emergency pandemic plans, vehicle cleaning procedures).	
☐ Work to the data-driven thresholds, expanding and contracting service accordingly, recognizing that full recovery from a significant disruption is a long-term process.	
☐ Continuously assess essential functions and evaluate internal emergency management capabilities, communication and processes.	
☐ Continuously assess capacity of personnel across executive, management and frontline ranks to sustain service.	
☐ Examine opportunities to modernize prevention, protection and response solutions to a public health emergency, including contactless payment systems, no-touch thermometers and other technologies.	
☐ Communicate through a standardized instrument/document that can be customized and updated daily as needed (a Situation Report).	
☐ Conduct virtual "just-in-time" training and exercises to both internal and external audiences to evaluate and strengthen preparedness planning and operations.	
☐ Establish procedures and protocols to maintain a common operating picture of both response-related operations as well as the maintenance of mission-essential functions.	
☐ Act as a "warehouse" for documenting all internal plans, processes and activities conducted in response to the pandemic.	
☐ Conduct a business impact analysis (as resources allow) to include operational, economic, administrative and social effects, considering both the organization and the transit industry writ large.	
☐ Identify and assess readiness of equipment, supplies, assets and facilities required to increase/resume service.	
☐ Identify and assess readiness of personnel required across executive, management and frontline ranks to increase/resume service.	
☐ Confirm availability of lines of communication among internal departments and staff, customers and the public, government stakeholders, unions, and private-sector partners (suppliers, contractors, etc.).	
☐ Identify the triggers that would lead to a subsequent reduction of service as required to protect public health and safety in the case of a second wave of a pandemic virus.	

Continuous emergency management monitoring (reference Section 12)	
Task	**Responsibility**
☐ Confirm the functionality of emergency response and service reduction procedures prior to restoring service.	
☐ Calculate, forecast and monitor costs, revenue and recovery time for a second wave of the virus, using current local, regional, national and global pandemic incident and economic impact data.	

Communications with state and local emergency management (reference Section 12.1)	
Task	**Responsibility**
☐ Designate an individual to serve on the local Emergency Operations Center (EOC), and then communicate to other members of staff who that individual is and how they will receive relevant updates.	
☐ Ensure that agency officials knowledgeable about operations have a seat in local and state EOCs during major activations/operations that impact transit.	
☐ Coordinate communications with local and state emergency management so the message stays consistent.	
☐ Communicate transit asset availability to emergency management.	
☐ Activate the Emergency Operations Control Center (EOCC).	
☐ Based on NIMS Incident Command Systems (ICS) guidelines, assign EOC officers, section chiefs and unit leads to staff with appropriate authority and experience.	
☐ Schedule consistent meetings, and allow other non-EOC department managers to join as guests.	
☐ Validate and approve situation status reports communicated to internal, external and emergency management entities.	

Appendix B: The power of a checklist

Why a checklist?

According to Samuel Gorovitz and Alasdair MacIntyre's "Toward a Theory of Medical Fallibility" (1975), humans fail for three main reasons. The first is "necessary fallibility," the fact that our mental and physical abilities are limited. Some things we want to do are simply beyond our reach. Other times, we fail because of ignorance—we're able and we could know what we need to know, but we don't—or don't yet. And then there's ineptitude, when we're able and we know what we need to know, but we do not apply our knowledge correctly.

As our knowledge base grows and our abilities are augmented by technology and engineering, ineptitude makes up an increasingly large proportion of human failing. This can be infuriating, but it's good news because it can be helped with a simple fix: a checklist.

How to build a checklist

1. **Study the problem.** If you're improving an existing process, observe it in action. Where do people trip up? When creating a new process, think through similar processes or steps and consider common obstacles.
2. **Mitigate.** Once you know where failure points are, design checks to prevent them. Decide whether a READ–DO checklist or a DO–CONFIRM checklist is best suited to close the gaps.
3. **Zoom out.** Consider what additional benefits the checklist might offer, such as changing power dynamics or motivating collaboration across a team, and add steps as needed.
4. **Test and get feedback.** Test-run your checklist (either in real life or in a simulation) and ask for candid feedback. You almost definitely won't have it completely right, so plan to do this multiple times.
5. **Revise.** Make changes based on the test runs, and expect improvements to be ongoing. Establish a reasonable revision schedule based on how quickly relevant knowledge and technology change.

FIGURE 6
A Checklist for Checklists

Development	►	**Drafting**	►	**Validation**
☐ Do you have clear, concise objectives for your checklist? Is each item: ☐ A critical safety step and in great danger of being missed? ☐ Not adequately checked by other mechanisms? ☐ Actionable, with a specific response required for each item? ☐ Designed to be read aloud as a verbal check? ☐ One that can be affected by the use of a checklist? Have you considered: ☐ Adding items that will improve communication among team members? ☐ Involving all members of the team in the checklist creation process?		Does the checklist: ☐ Use natural breaks in workflow (pause points)? ☐ Use simple sentence structure and basic language? ☐ Have a title that reflects its objectives? ☐ Have a simple, uncluttered, logical format? Is the font: ☐ Sans serif? ☐ Upper- and lowercase text? ☐ Large enough to be read easily? ☐ Dark on a light background? ☐ Are there fewer than 10 items per pause point? ☐ Is the date of creation (or revision) clearly marked?		Have you: ☐ Trialed the checklist with the front line (either in a real or simulated situation)? ☐ Modified the checklist in response to repeated trials? Does the checklist: ☐ Fit the flow of work? ☐ Detect errors at a time when they can still be corrected? ☐ Can the checklist be completed in a reasonably brief period of time? ☐ Have you made plans for future review and revision of the checklist?

Source: The Checklist Manifesto by Atul Gawande

Appendix C: Virtual board meeting best practices

Legislation and oversight

A pandemic emergency requires review of the legislation that oversees the agency—a deep dive into all sections that speak to rules of voting and what constitutes a quorum. For example, does "physical" mean in body, or does appearance on a video qualify?

The board may need to request a change to its legislation while under a state of emergency. This should cover all emergencies, including epidemics, pandemics, and any other type of emergency that prevents the public and governing body access to the meeting site (hurricanes, wildfires, storms, etc.).

The board should also review the CEO (or other agency executive) spend authority. Is it enough to handle day-to-day and upcoming procurements during the emergency? Specifically, if the board is not able to come together to take action, can the staff continue as needed? Staff should provide weekly or monthly reports on expenditures over the normal spend authority.

The board also should review the policy that covers what changes and what needs to be implemented when a state of emergency is issued. Review local, state and federal guidelines to see where rules and governance may overlap.

The board must be kept aware of all issues and concerns, as well as procurements and financial strain, related to an emergency. Meetings should include a briefing on any emergency contingencies mandated by state DOTs, FTA and USDOT.

Setting up virtual board meetings

Preparation is key to holding a successful virtual board meeting. The following are best practices:

- Determine the timeline for regular meetings and work sessions.
- Test virtual formats to allow for the best option for the board members and staff. Confirm recording capabilities, both video and audio, including captioning services and live-streaming capabilities. Also identify a platform to conduct closed sessions.
- Research options to procure tablets, laptops, etc. for the board members. They may need special permission to download new software onto a business device.
- Research electronic "board package" or board materials options. These can be saved as a PDF, signed electronically, and delivered via email for cost savings.
- Determine a process to determine what will be included in each meeting and the flow to limit the number of presenters back and forth. All participants should be mindful of the virtual view with screens and of the board members' time.
- Test the software and hold a dry run before the date of the board meeting.
- Preload any information that is being shared for attendee consumption (action items, videos, etc.).

Conducting meetings

- Take roll call and ensure that all board members are visible on the screen. Announce any latecomers as they arrive.
- The chair or acting chair should lay out the guidelines for the meeting, e.g., instructing participants to mute themselves and explaining the process for questions and discussion.
- Acknowledge the scribe or court reporter and the need to avoid speaking over one another to preserve the actions of the board.
- Provide a reminder that everything is being recorded.

- A color-coded run of show for the meeting is extremely helpful. It should include all board and staff members who have a role, along with each individual's remarks or introduction.
- Provide advance notice of any issues, public comments and/or concerns, and new or old business.
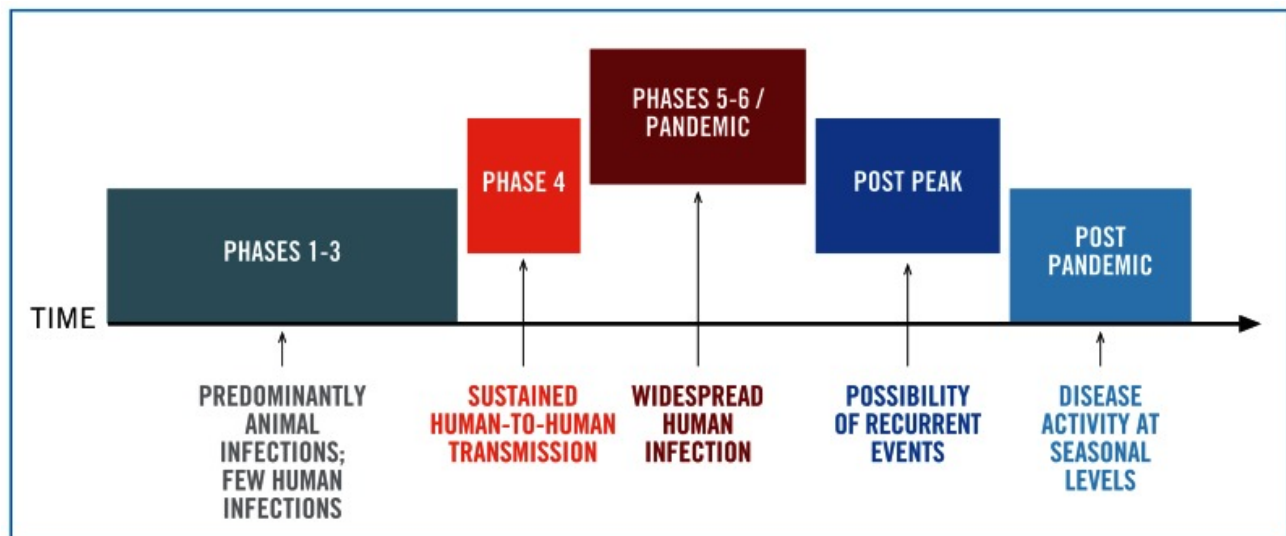- Ensure that IT is on hand and prepared to assist board members and the public.

Public involvement and comment

- Ensure that the virtual platform being used for board meetings and public comment is user-friendly.
- Provide public/legal notice in time for members of the public to upload the software to join the virtual meeting.
- The public notice should include a location to see specific instructions and/or details to join the meeting.
- Call-in numbers should be toll-free or local.
- Provide a method for the public to ask questions via both email and phone. Ensure that that point of contact is well-versed in the process, software and rules surrounding public involvement and comments.
- Request that any requests for public comment be submitted in advance (at least two hours before the meeting, for example) to assist with preparation and sign in at the time of the meeting.
- Request attendees to provide their names (especially if the agency normally has a sign-in sheet at physical meeting).
- Advise attendees that everyone will be muted and will be unmuted only when called upon (provided that a request to speak was submitted).
- Provide the meeting agenda for public access.

Appendix D: Summary of WHO influenza pandemic phases

These phases were developed by the World Health Organization in 1999, and revised in 2005, to provide a global framework to aid in pandemic response and preparedness planning. Phases 1–3 represent the time for preparedness, while phases 4–6 require response and mitigation efforts. In 2009, WHO created the visual of influenza pandemic phases shown in **Figure 7**.

FIGURE 7
WHO Influenza Pandemic Phases

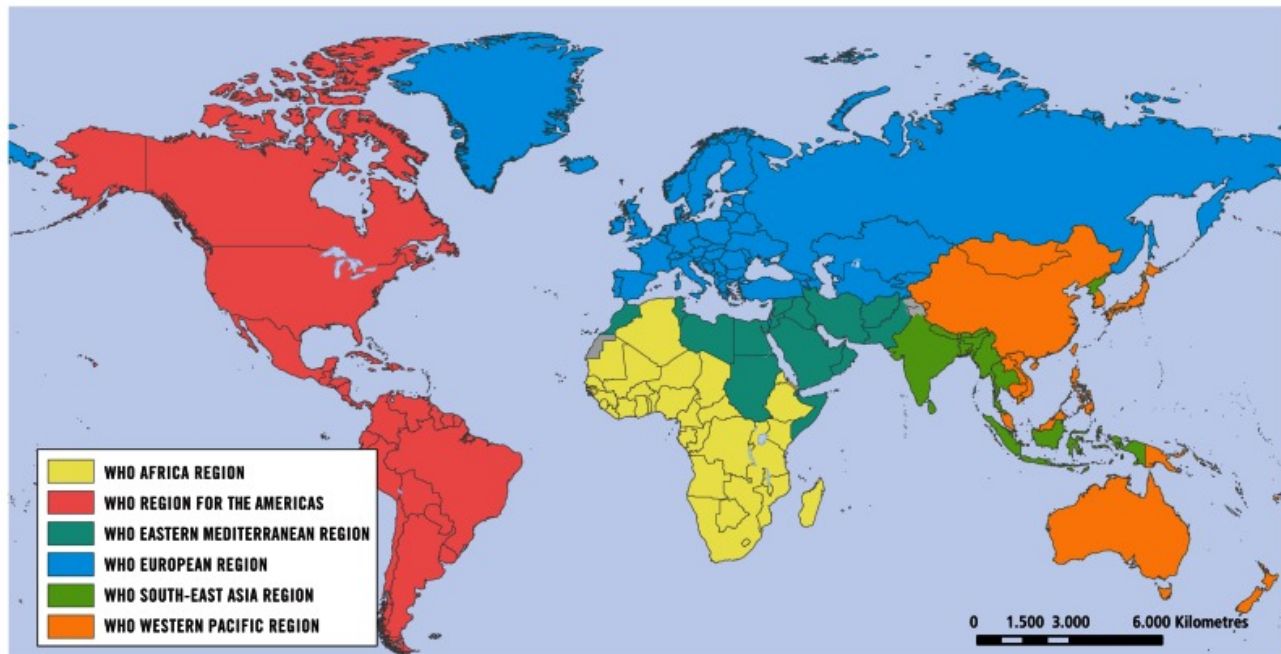*Source: World Health Organization*

These are the six influenza pandemic phases identified by the WHO:

- **Phase 1:** No viruses circulating among animals that have been found to cause human infection.
- **Phase 2:** An animal virus is known to have caused infection in humans.
- **Phase 3:** An animal or human–animal virus is known to have caused small clusters of disease in humans but has not resulted in human-to-human transmission at a level that sustains community-level outbreaks. There may be some human-to-human transmission, however.
- **Phase 4:** The virus is contagious enough to cause community-level outbreaks, creating significant increase in risk of a pandemic.
- **Phase 5:** Human-to-human spread of the virus in at least two countries in one WHO region, defined in **Figure 8**. This is a strong signal that a pandemic is imminent, and that the time to implement mitigation measures is running short.

FIGURE 8
WHO Regions

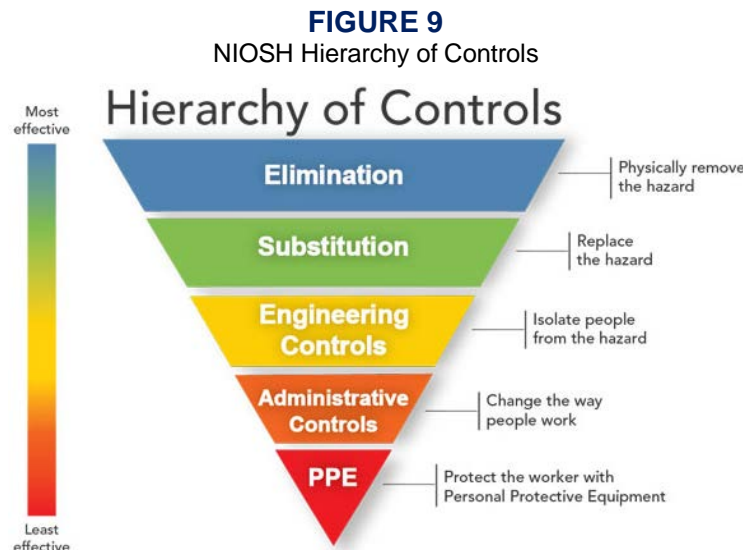*Source: World Health Organization*

- **Phase 6:** This is the pandemic phase, characterized by community-level outbreaks in at least one additional country in a different WHO region.

The post-peak period occurs when pandemic activity appears to be decreasing, but it does not indicate that the danger is over, and preparations will need to be made for a potential second wave. Pandemic waves can come months apart, and a signal that the danger seems to be over may be premature.

Appendix E: Summary of NIOSH hierarchy of controls

The National Institute for Occupational Safety and Health (NIOSH), part of the Centers for Disease Control and Prevention, uses a hierarchy of controls as a guideline to determining the best means of providing a feasible and effective solution to protecting workers from threats. The methods given at the top of the chart (**Figure 9**) are considered more protective than those at the bottom and should be used first when possible.

FIGURE 9
NIOSH Hierarchy of Controls

Elimination (removing the hazard) and substitution (replacing the hazard) are the most effective but also most difficult to implement in an existing process.

Engineering controls (isolating people from the hazard) are intended to remove the hazard at the source, before it comes in contact with the worker. Well-designed engineering controls can be highly effective in protecting workers.

Administrative controls (changing the way people work) and PPE (personal worker protective equipment) are frequently used with existing processes where hazards are not well-controlled. Administrative controls and PPE programs are relatively inexpensive to establish but can be costly to sustain over the long term and are considered less effective at protecting workers.

Appendix F: Sample Pandemic Incident Report

CONFIDENTIAL EMPLOYEE INCIDENT REPORT AND CONTACT TRACING

1. Name of employee: _____

2. Job position: _____

3. Department: _____

4. Date employee notified agency of positive, or presumed positive, result: _____

5. Date employee first symptomatic (if known): _____

6. Date employee was tested (if applicable): _____

7. Date on which employee was informed of positive test (if applicable): _____

8. Last date employee was at work: _____

9. Names of other employees with whom the employee had close contact in the 48 hours prior to the onset of symptoms (if employee is unable to provide date of symptom onset look back 14 days from the date contact tracing to identify potential close contacts):

   _____

   _____

   _____

   _____

   Notify each of the employees identified about their potential exposure. Instruct the employees to remain out of work for a minimum of 14 days (unless following CDC Critical Worker Return to Work Protocol) following their last contact with the virus-positive employee

10. Did the employee have contact with customers in the 48 hours prior to symptom onset? _____

    If yes, last date of such contact: _____

    Locations/areas where such contact occurred: _____

    _____

    _____

    _____

    _____

11. Vehicles, equipment and areas within facility with which employee had contact in the 48 hours prior to symptom onset:

    _____

    _____

    _____

    Arrange deep cleaning of areas identified. Date deep cleaning completed: _____

12. Has the local public health department been contacted and, if so, based on above information, did the public health authority advise whether any customer(s) need to be notified that the employee has tested positive:

    _____

    _____

13. Is it necessary to notify any customers of this situation: _____

    If yes, date customer notification occurred: _____

14. Is this situation an OSHA recordable or reportable situation: _____

    If recordable, is the record completed: _____

    If reportable, was the report made? _____

15. Prepare workplace notification of positive, or presumed positive, virus infection.

    Date workplace notification sent: _____

    NOTE: Once completed, this form should be maintained in a confidential medical file.