

## 2.0 Emergency Response

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### ***2.1: Maintenance and Operations***

The Alaskan Way Viaduct portion of SR 99 is a State Highway within the City of Seattle. As such, legal responsibilities for maintenance and operations are spelled out in RCW 47.24.020. The State of Washington (specifically Washington State Department of Transportation) is responsible for the Viaduct structure and the City of Seattle (specifically, Seattle Department of Transportation) is responsible for traffic operations and traffic control, in cooperation with the Seattle Police Department and SDOT's Commercial Vehicle Enforcement officers for enforcement. The land and streets under the Viaduct are the property of the City of Seattle and under the City's control.

In a scenario where a significant event (such as an earthquake) causes damage to the Viaduct, the State has the responsibility for inspecting the facility to determine its structural integrity. The State and City would then together determine if the Viaduct is safe to be re-opened to traffic. The City has the responsibility to determine if the city streets under it should be closed or open to traffic.

Based on the foregoing understandings, each agency has clear responsibilities following an emergency. In the event the integrity of the Viaduct is in question, close coordination, communications, and cooperation will be required for a successful emergency response and contingency plan implementation. The close collaboration by which this Response Plan has been developed is a significant example of the culture of cooperation and pursuit of common goals shared by the City and State.

The following are the emergency response protocols of the City of Seattle and Washington State. They define the initial planned actions each agency will take and highlight the key linkages to achieve the successful and coordinated execution of this response plan.

### ***2.2: Authorities***

There are two “emergency” conditions in which it may be necessary to close the Alaskan Way Viaduct or place further restrictions on its use. These are:

1. Life Safety -

When there exists a hazardous condition or where life, property and/or the environment are likely in imminent danger, emergency service agencies are vested with authority to take such measures as are deemed appropriate to ensure the safety of people, property and the environment. In this context, law enforcement agencies and the fire department with jurisdiction in Seattle could find it necessary to close or otherwise restrict use of the Viaduct.

2. Engineering -

If as a result of an event or inspections of the Viaduct engineers determine that its structural integrity is sufficiently compromised, they would work with City and State officials regarding further restrictions or closure.

As mentioned in Section 1, this Plan contains four scenarios that capture the range of likely emergency interruptions for use of the Alaskan Way Viaduct corridor. They are:

- 1) Alaskan Way Viaduct is unusable *and* the seawall fails to a degree that necessitates closure of surface Alaskan Way.
- 2) Alaskan Way Viaduct is rendered unusable for all traffic. Surface Alaskan Way remains viable as a north-south arterial.
- 3) Alaskan Way Viaduct is shut down due to a traffic incident, and is expected to be re-opened within 2-6 hours. The Alaskan Way surface street remains open for all traffic.
- 4) Alaskan Way Viaduct is damaged and usable, but only for lower-weight auto traffic, not for trucks or transit; surface Alaskan Way remains viable for all traffic.

### ***2.3: City of Seattle Emergency Response***

#### **Mobilization**

Upon being made aware of conditions in an emergency situation that might affect the availability of the Alaskan Way Viaduct, a number of City departments (along with other regional and state agencies) would come into play. Initial response would be focused on life safety.

#### **Seattle Police Department (SPD)**

If there is clear, apparent evidence of damage to the structure, or a major traffic incident necessitates closure in one or both directions, SPD will implement the relevant portions of their “SPD Traffic Division, Alaskan Way Viaduct Closure Plan.” This plan is incorporated within SDOT’s Action Plans and is documented within each scenario plan. In keeping with that plan, SPD Traffic Division will dispatch officers to:

- a) Divert northbound traffic off SR 99 at South Spokane Street
- b) Divert southbound traffic off SR 99 at Denny Way
- c) Block on-ramps between Denny Way and South Spokane Street at:

- Bell Street (northbound)
- Elliott Avenue (southbound)
- Columbia Street (southbound)
- 1st Avenue South/Railroad Way south (northbound)
- South Spokane Street (high level) Bridge (northbound)

If there is likelihood that criminal activities are involved in the incident, SPD will exercise their responsibility to apprehend those responsible and investigate the crime scene. If the condition is due to a vehicle accident SPD will follow departmental protocols to investigate and document the accident.

### **Seattle Fire Department (SFD)**

If there are injuries, the apparent need to rescue people, or evidence of fire or hazardous materials, SFD will respond either by calls to 9-1-1 or as notified by SPD.

### **City of Seattle Emergency Management**

In keeping with Incident Command protocols institutionalized by the City's adoption of the National Incident Management System (NIMS) and utilized by SPD, SFD, and other City departments with emergency response responsibilities, an Incident Command structure will be established. If the incident is primarily a traffic and/or crime issue the Incident Commander will be the senior SPD officer on scene. If the incident is primarily a fire and life safety event, the Incident Commander will be the senior Fire officer on scene. In all likelihood, a major event such as an earthquake that disables the Viaduct will quickly be directed through Unified Command involving both SPD and SFD.

Among the first responsibilities of an Incident Commander are:

- 1) Conduct a size-up assessment
- 2) Establish an Incident Command Post (ICP) – notify dispatch of location and designation of the ICP
- 3) Identify contingencies – additional resources needed

### **Seattle Emergency Operations Center (EOC) Activation**

When it becomes evident that the response to the incident is going to be prolonged and/or will involve a number of City Departments, the City's Emergency Operations Center (EOC) will be mobilized. Both the Fire Alarm Center and Police Dispatch have contact numbers for the on-call EOC Staff Duty Officer (SDO), available 24 hours-per-day, 7 days-per-week. In keeping with established EOC protocols, the SDO will notify appropriate Emergency Managers. The on-call Emergency Manager will advise the Mayor of the situation and request an Emergency Declaration. Following this, the Emergency Manager will advise the State EOC of the situation and advise them that the City is activating its EOC. At the same time, the coordinators for the various Emergency Support Function groups will be contacted to bring appropriate responders to the EOC.

### **Seattle Department of Transportation (SDOT)**

Specific SDOT mobilization plans are further detailed later in this section, as well as in the specific Action Plans for each scenario. Coincidental to Police and Fire response, SDOT would be concurrently advised by one or more of SPD, SFD, WSDOT, or field crews of the incident.

SDOT's Charles Street maintenance facility maintains a 24/7 dispatch center. The dispatcher will dispatch the most readily available crew to the scene to:

- 1) Verify that there is apparent damage to the structure and/or a significant incident requiring partial or full closure
- 2) Make contact with the Incident Commander (if/when IC has been established)
- 3) Report findings to SDOT dispatch
- 4) Dispatch will notify appropriate manager(s) for further instructions

### **Seattle City Light (SCL)**

Upon activation of the EOC the coordinator for the Public Utilities Emergency Support Function group (ESF-3) will be contacted by EOC managers. The ESF-3 Coordinator will contact designated EOC responders for SCL.

### **Seattle Public Utilities (SPU)**

Upon activation of the EOC the coordinator for the Public Utilities Emergency Support Function group (ESF-3) will be contacted by EOC managers. The ESF-3 Coordinator will contact designated EOC responders for SPU.

## ***2.4: Inspection and Assessment***

The Alaskan Way Viaduct is a state-owned asset. It is the responsibility of WSDOT engineers to inspect the structure following an event that may have compromised its integrity. However, SDOT structural engineers may be available for an initial inspection and judgment as to the reliability of the structure. On the occasion of a significant seismic event, SDOT's Bridge Structures group has standing procedures for a call-out of qualified inspectors and rapid assessment of SDOT bridges. This group would be available as a resource to render an opinion on the Alaskan Way Viaduct until WSDOT inspectors arrive on scene.

## ***2.5: Washington State Response***

The Washington State Department of Transportation has a comprehensive emergency response plan. This Emergency Traffic Management and Closure Plan for the Alaskan Way Viaduct incorporates and coordinates with WSDOT's plans. (Further details of the WSDOT Emergency Response is provided in Appendix F.)

## ***2.6: SDOT and WSDOT Coordination***

### **Awareness**

SDOT and WSDOT are "partners" when it comes to managing traffic through the Alaskan Way corridor. Collaboration and cooperation will complement the mission of each agency. The two agencies have agreement on joint notification procedures. When SDOT is made aware of a traffic situation likely to impact WSDOT systems, SDOT will contact SDOT's Northwest Region (NWR)

Traffic Operations Center. Similarly, upon WSDOT being aware of a traffic situation likely to impact City of Seattle traffic operations, the WSDOT NWR Traffic Operations Center will contact SDOT's Traffic Management Center during normal business hours, and SDOT's Charles Street 24-Hour Dispatch after hours.

**(SPECIFIC PHONE NUMBERS CONTAINED IN STAFF DOCUMENT ONLY)**

**Early Actions**

Whichever agency first becomes aware of issues of common interest, the two agencies will contact each other to:

- Provide current situation status report
- Discuss mitigation actions that could be taken by either agency
- Advise agency managers of situation and recommended actions
- Advise partner agencies of intended actions
- Agree on time for next update

If the situation reaches a magnitude that necessitates the activation of either agency's Emergency Operations Center (EOC), communication and coordination will pass through EOC protocols pursuant to the City of Seattle Disaster Readiness and Response Plan and the State of Washington Disaster Management Plan.

**Transition**

As noted earlier, initial emergency response would likely be managed by Police, Fire or a unified response from the two departments. SDOT and WSDOT would be a resource to that initial response. During an emergency event, SDOT will advise the EOC's Planning Section Chief of its capability to put into place detour routing plans described in the following sections.

***2.7: SDOT Implementation Action Plans***

In the following four sections of this Plan are four scenario-based "Action Plans" designed to provide the framework, identify resources, and specify tasks based on likely scenarios. These are:

- 1) Alaskan Way Viaduct is unusable *and* the seawall fails to a degree that necessitates closure of surface Alaskan Way.
- 2) Alaskan Way Viaduct is rendered unusable for all traffic. Surface Alaskan Way remains viable as a north-south arterial.
- 3) Alaskan Way Viaduct is shut down due to a traffic incident, and is expected to be re-opened within 2-6 hours. The Alaskan Way surface street remains open for all traffic.
- 4) Alaskan Way Viaduct is damaged and usable, but only for lower-weight auto traffic, not for trucks or transit; surface Alaskan Way remains viable for all traffic.

**Pre-Event Preparations**

In anticipation of these scenarios and the need to implement one of these Action Plans, certain preparations have already been put into place. These include:

- Detour route plans have been developed in partnership with SPD and WSDOT, and have been vetted with a wide cross section of citizen and business community stakeholders at community workshops.
- SDOT, SPD, WSDOT, Seattle EOC, and selected vendors and suppliers will all have copies of this “Traffic Management and Emergency Closure Plan for the Alaskan Way Viaduct.”
- SPD has developed an “Alaskan Way Viaduct Closure Plan” which includes specific posting instructions. This document was produced in conjunction with SDOT.
- Movable barricades have already been pre-staged at Viaduct access points for rapid deployment by SPD officers.
- Locations have been identified and a plan is in place for rapid deployment of SDOT’s truck-mounted arrow boards.
- Detour signage and advance warning signage have been identified and stocked in SDOT Traffic Shops, maintenance facilities, and are available on contract with vendors.
- A Memorandum of Agreement has been executed between SDOT and the 9-1-1 Center to ensure prompt notification regarding suspected severe damage to the Alaskan Way Viaduct and the need to close it in the wake of a significant unexpected event.
- A Memorandum of Agreement has been executed between SDOT and WSDOT to ensure prompt notification regarding suspected severe damage to the Alaskan Way Viaduct and the need to close it in the wake of a significant unexpected event.
- SDOT and WSDOT have exchanged 800 MHz and 450 MHz radios to facilitate direct communication between traffic management centers.
- Telephone, cell phone and pager numbers for identified SDOT managers have been entered into a call list on the City’s Community Notification System.
- SDOT has met with industrial, transportation, commercial, and retail business interests to discuss how this Traffic Management Plan can best meet their needs, as well as measures they can take through their own operations to mitigate traffic impacts.
- Better wayfinding signage to help motorists navigate from SR99/Alaskan Way Viaduct to I-5 has been identified as a priority and is being implemented.

### **Awareness**

By way of a Memorandum of Agreement between SDOT, SFD, and SPD, dispatch offices will notify one another at their first opportunity of a significant incident severely impacting traffic. All parties have agreed to make it a priority for their department to promptly advise others of developing severe traffic issues. To the extent known, information on the location, nature of the incident, scope of traffic impact, estimated duration, points of contact, and schedule for updates (by default, at the beginning of every hour and as conditions change) will be exchanged.

If Seattle experiences a significant earthquake or major traffic incident, SPD has protocols in place to unilaterally close the Alaskan Way Viaduct until a damage assessment can be conducted. SDOT personnel would likely be quickly aware of a major earthquake first-hand. SDOT’s initial response to a major earthquake and subsequent Viaduct closure would be as a key resource to SPD and SFD to facilitate life safety access to and from the scene and nearby emergency medical facilities, and to coordinate with WSDOT to allow for an assessment of damage to the structure. SDOT’s response to a major traffic incident that closes the Viaduct would be similar in some respects, but more

focused on location-specific needs of SPD and SFD, and to work with emergency responders and WSDOT to keep traffic moving on alternate routes.

### **Notifications, Implementation & Mobilization**

In any major disruption to traffic on the Alaskan Way Viaduct a prompt response and implementation of this Traffic Management Plan will go along way toward reducing the adverse impact of the closure. By City Code, the City's Traffic Engineer (or designee) has the authority to implement plans to manage traffic in Seattle. Therefore, the decision to implement this Plan rests with the City Traffic Engineer (who would consult with the SDOT Director and others as appropriate and available). In the event the Traffic Engineer is unavailable for immediate response, the following are designated to act on behalf of the Traffic Engineer (contact information is found in Appendix J):

City Traffic Engineer (Director of the Traffic Management Division in SDOT) or designee:

- Director, Seattle Department of Transportation
- Manager, Signal Operations, Traffic Management Division
- Manager, Traffic Operations, Traffic Management Division
- Director, Street Maintenance Division
- Director, Roadway Structures Division

Upon being made aware of a major traffic incident (or following a significant earthquake), the City Traffic Engineer or their designee would confirm the report and verify:

- Nature of the incident (earthquake or accident; haz-mat, etc.)
- Extent of the incident (how much of the roadway is blocked)
- Extent of any damage to the Viaduct structure
- Duration (how long roadway will be blocked)

With this type of information an appropriate decision can be made regarding the initial SDOT response.

With the decision to implement one of the four Action Plans described in Chapters 3 – 6, notifications will immediately be sent to the following key SDOT decision-makers. This group (or their designees) will become the **Incident Oversight Team**.

- 1) City Traffic Engineer (Director of Traffic Management Division)
- 2) Director, Street Maintenance
- 3) Strategic Advisor, Traffic Management Division
- 4) Manager, Signal Operations, Traffic Management Division
- 5) Manager, Traffic Operations, Traffic Management Division
- 6) Manager, Traffic Control, Traffic Management Division
- 7) Supervisor, Construction Traffic Control Plans and Detours
- 8) Manager, SDOT Public Information
- 9) SDOT Emergency Preparedness Officer

(Contact information for the above is located in Appendix J).

This team will ensure authorizations are in place to proceed with the proscribed response, review incident goals, and address emerging issues. At its initial meeting the Incident Oversight Team will designate one person as **Team Leader**. Others may be brought onto the Incident Oversight Team as warranted.

Procedures and actions proscribed in this plan are to be implemented immediately upon receiving reliable information of loss of the availability of the Alaskan Way Viaduct. As soon as the **Incident Oversight Team** is able to confer, the actions initiated will continue as proscribed in the Action Plans that follow (subject to modification as needed and agreed upon by the team).

### **Coordination**

SDOT and WSDOT are “partners” when it comes to managing traffic through the Alaskan Way corridor. Collaboration and cooperation will complement the mission of each agency. The two agencies have come to agreement on joint notification procedures. When SDOT is made aware of a traffic situation likely to impact WSDOT systems, SDOT will contact SDOT’s Northwest Region (NWR) Traffic Operations Center. Similarly, upon WSDOT being aware of a traffic situation likely to impact City of Seattle traffic operations, the WSDOT NWR Traffic Operations Center will contact SDOT’s Traffic Management Center during normal business hours, and SDOT’s Charles Street 24-Hour Dispatch after hours.

### **(SPECIFIC PHONE NUMBERS CONTAINED IN STAFF DOCUMENT ONLY)**

In the event telephones are not available, communications will be through a shared 800 MHz radio communications system.

In the case of a major traffic incident on the Alaskan Way Viaduct, SPD, SFD, or both agencies will provide Incident Command. As such, SDOT will contact the Incident Commander to advise him/her of the availability of traffic mitigation measures. The on-scene commander will be contacted through Charles Street dispatch using the direct intercom system.

### **Resources**

#### **Trucks and Equipment**

Seattle's trucks and plows are principally used for general street maintenance activities and can be redeployed to emergency response services when necessary. The equipment that SDOT and the Fleets & Facilities Department have available for response and clean-up includes the following:

<b>Equipment</b>	<b>Quantity</b>
Trucks with “arrow” signs	34
Trailers with “arrow” signs	2
Truck with impact attenuator	2
Portable changeable message signs	1
Motor patrol graders	1
Dump trucks	45
Front-end loaders	5



<b>Equipment</b>	<b>Quantity</b>
Backhoes	9
Mechanical street sweepers	7
Street flushers	2
Additional traffic control devices	see Appendix C

SDOT’s Charles Street and Haller Lake facilities have fuel pumping capabilities during power outages.

The Traffic Management Division also has about 12 trucks available for use. These can be used for a variety of support activities such as placement of needed signage, replacement of downed signs, and delivery of emergency supplies.

In an event that exceeds the capabilities of SDOT's vehicle and equipment inventory, the Seattle Department of Parks & Recreation and Seattle Public Utilities (SPU) have an inventory of heavy equipment which may be available depending on the nature of the event and its impacts citywide. SPU has approximately seven trucks, however the number available to assist SDOT would likely vary depending upon the emergencies that confront SPU while SDOT is addressing traffic issues. The resources of these two departments are not listed in this Plan's base inventory. However, protocols are in place for SDOT to request help from these departments in the event an incident exceeds SDOT's resources.

### **Communications Capabilities**

**(FULL TEXT OF THIS SECTION AVAILABLE IN STAFF DOCUMENT ONLY)**

SDOT Street Maintenance and Traffic Division vehicles have radios. All can communicate directly with both Charles Street dispatch and with the Traffic Management Center. In addition, Traffic Management can directly monitor approximately 300 of its signal controllers in and around downtown to obtain information and revise their operations as necessary for existing conditions (provided electric power is available).

### **Response Personnel**

The SDOT Street Maintenance Division has two general Street Maintenance Managers (Surface Repair and Street Cleaning) who report to the Street Maintenance Director. Personnel available for incident response also include approximately 33 drivers, 18 equipment operators, 76 laborers, and 5 radio dispatchers. The Traffic Management Division has 2 traffic marking leaders, 10 laborers, 21 signal technicians, 6 licensed traffic engineers, and additional staff available to contribute their services.

### **Traffic Control**

A complete inventory of signage and barricades for use in this plan is included in Appendices A & B. The Plan proscribes locations for each sign and/or barricade.

In collaboration with SPD, a “posting order” has been developed and is a component of SPD’s response plan as well as this Traffic Management Plan. This posting plan proscribes locations,

priorities, and instructions for police officers. When other effective traffic management tools can be brought to the location, posted officers will be relieved for other duties.

### **Public Information**

In all emergency operations managed by City Departments, the initial Public Information responsibility rests with the Incident Commander (IC). In the case of an earthquake or other significant incident which results in closing the Alaskan Way Viaduct and surface street, the SDOT Public Information office will contact the Incident Commander and ask to be put in touch with the IC's Public Information Officer. SDOT's initial messages are contained in Section 3 of this plan. Once the City's Emergency Operations Center is activated, communications will be coordinated through the EOC's Emergency Support Function for Public Information.

### **Demobilization**

As it becomes evident that the incident will be resolved and traffic will be returned to normal, the Incident Oversight Team, in coordination with public safety agencies and WSDOT, will agree on a timetable for removal of advance warning systems, temporary barricades, and detour signage. If a vendor is used for some of the traffic control devices, they will be advised of the timetable and confirm they will meet the intended schedule.

When the event is concluded the Incident Oversight Team Leader will provide the SDOT Director with an After Action Report highlighting:

- Brief description of event
- How SDOT was notified
- Effectiveness of call-out procedure
- Effectiveness of Incident Management Team
- Overall effectiveness of SDOT response
- Lessons learned
- Recognize exceptional performance

### **Action Plans**

The following Action Plans have been developed in collaboration with Washington State Department of Transportation, King County Metro, Washington State Ferries, Port of Seattle, Washington State Patrol, Seattle Police Department, Seattle Fire Department, Seattle City Light, Seattle Public Utilities, and the Alaskan Way Viaduct and Seawall Replacement Project Team. SDOT and WSDOT staff have met with members of the north end, downtown, Duwamish and West Seattle communities.