

State Route 99 Overturned Tractor Trailer Incident  
Preliminary After Action Report<sup>1</sup>  
City of Seattle  
April 2, 2015

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<sup>1</sup> The City of Seattle will be utilizing an external consultant to fully investigate this incident, focusing on how existing communication and collaboration systems can be improved. As such, a fuller analysis of any issues and solutions will be forthcoming. All facts and conclusions set forth in this document are based on the information available at this time and may be revised after further review.

This preliminary report was requested by the Mayor to identify issues and solutions to increase the City's capacity to respond to major traffic incidents, in light of what all agree were unacceptable traffic outcomes on March 24, 2015.

### **Incident Description**

At 2:23 PM on March 24, 2015 a tractor trailer owned by Sunset Transport, Inc., overturned while traveling southbound on State Route 99 (SR 99) blocking all southbound lanes just north of Royal Brougham Way South. SPD responded to multiple 911 calls and arrived on scene within four minutes. The vehicle ended up on its side in the inside lane adjacent to a Seattle Tunnel Partners (STP) construction site. Witnesses at the scene described its cargo as cod fish worth \$450,000 to \$750,000.

With the vehicle overturned and traffic fully stopped behind it, southbound SR 99 quickly came to a standstill with drivers unable to leave the roadway due to the lack of exits on the road and nearby Alaskan Way Viaduct. During the same rush hour period three other traffic collisions occurred, which exacerbated the effects from the prolonged loss of southbound SR 99. In addition, the Seattle Sounders were playing a 7:00 PM soccer game at Century Link Field which was projected at 39,000 attendees, and the police were conducting a manhunt in the Chinatown/International District. The crash site was not cleared and reopened to traffic until 11:37 PM.



### **Key Entities Involved in the SR 99 Overturned Tractor Trailer Incident Response**

The following individuals were involved in the incident either on-site or in a supporting role off-site:

- Seattle Police Department (SPD)
- Seattle Department of Transportation (SDOT)
- SDOT's Transportation Operations Center (TOC)

- Supervisor for Lincoln Towing
- Seattle Fire Department (SFD)
- Washington Department of Transportation
- Sunset Transport, Inc., owner of truck
- Great West Casualty, representing Sunset Transport, Inc.

### **Incident Response Timeline**

The following timeline outlines the activities that took place in response to the overturned tractor trailer. The timeline presented reflects the factual information available at this time.

2:23 PM – First 911 call received about the overturned tractor trailer lying on its side on southbound SR 99.

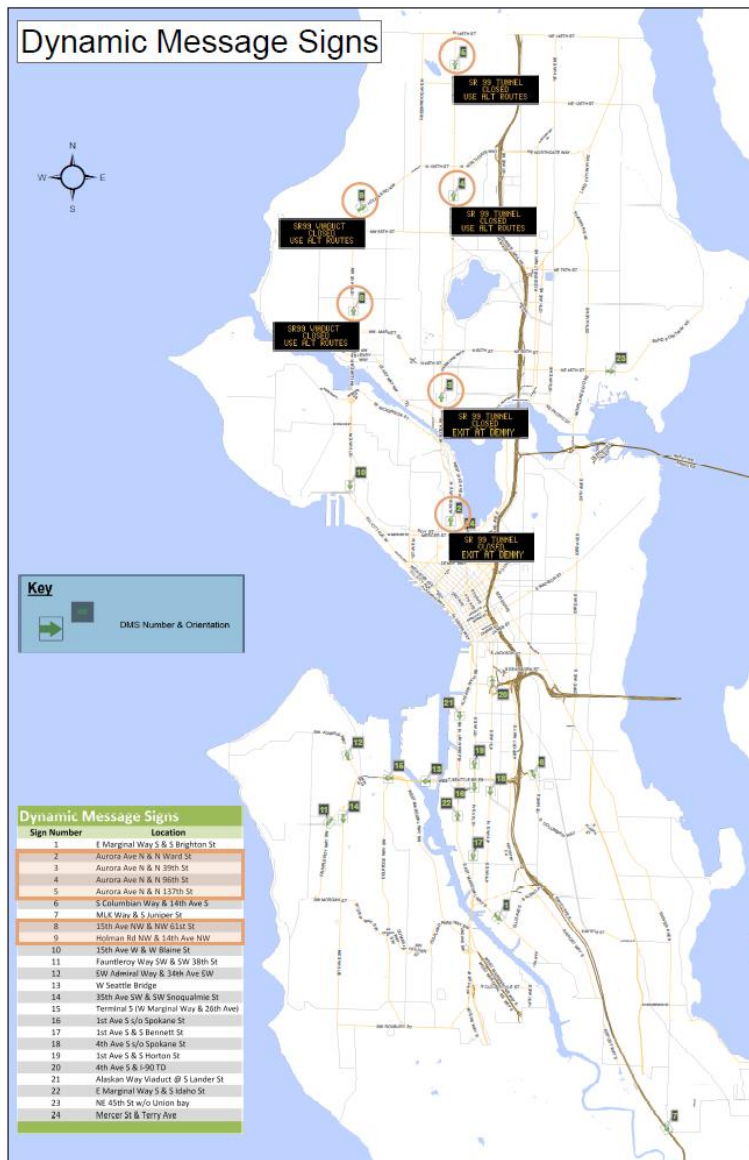
2:27 PM – SPD arrives on scene as the first responder. Advises Metro and SDOT.

2:33 PM – SDOT tweets about collision.

2:33 PM (approximately) – SDOT contacts King County Metro to request bus rerouting around collision scene.

2:33 PM (approximately) – SDOT contacts Washington State Department of Transportation (WSDOT) Northwest Region about the collision.

2:33 PM (approximately) – DMS signs noting the incident were activated by the SDOT TOC. A map showing VMS sign locations is below.



2:34 PM – SPD calls for SFD EMTs.

2:38 PM – SDOT tweets that all southbound lanes are closed and that drivers should use alternate routes.

2:40 PM – SPD diverts tunnel traffic to Denny.

2:40 PM – SPD activates beacons at the entrance to the Battery Street Tunnel. DMS signs then displayed preprogrammed messages based on the beacons’ activation.

2:46 PM – Contents of truck confirmed as non-hazardous.

2:48 PM – SPD initiates traffic control at other intersections.



2:53 PM – SPD requests tow for big tractor and trailer on side. Routing information provided for tow truck.

3:03 PM – SPD begins to reverse vehicles blocked in southbound lanes of SR 99 via Elliott Avenue on-ramp.



3:03 PM – SFD transports tractor trailer's operator to Harborview Medical Center with non-life threatening injuries. The operator would later be cited by SPD for exceeding reasonable speed (SMC 11.52.020).

3:04 PM – A light tow truck from Lincoln Towing arrives on scene.

3:06 PM – Remaining SFD personnel leave the scene.

3:21 PM – SDOT arrives on scene.

3:30 PM (approximately) – SDOT contacts the Sounders to inform them of the incident and its severity. The Sounders postpone the start time of their scheduled game until 7:23 PM.

3:50 PM – SPD removes the last vehicle blocked in the southbound lanes of SR 99 from the viaduct and the Battery Street Tunnel.

4:00 PM – SDOT contacts Commute Seattle to inform them of the crash.

4:04 PM – Second Lincoln Towing truck (Class C model) arrives on scene.

4:05 PM – Third Lincoln Towing truck (Class C model) arrives on scene.

Over the next 60 to 90 minutes – First attempts to right tractor trailer. Lincoln Towing observed that the rig and the container were separating.



Lincoln towing also discovered that the fifth wheel plate had detached from the tractor.

4:18 PM – A collision occurs in downtown between a King County Metro bus and a pedestrian. SPD responds.

5:07 PM – Two separate collisions occur near Aurora and 39th restricting traffic by removing a lane in each direction from service. The roadway was not restored to full capacity until 6:22 PM. SPD responds.

5:16 PM – SDOT management receives a message from the TOC stating, “Overturned truck was carrying a large load of fish. That is complicating efforts to put the truck back on its wheels (side of truck is bulging and going to break as they lift it).”



Next 45 Minutes –Lincoln Towing makes the decision to decouple that tractor and trailer and executes plan.

Next 120 Minutes – After removing the tractor, Lincoln Towing tries three additional times to right the trailer but could not do so. On the fourth attempt Lincoln Towing is able to right the trailer. Lincoln Towing later noted that the landing gear was damaged as it had served as the pivot point. The landing gear dug into the asphalt, damaging the road surface.

5:45 PM – SDOT’s TOC contacts the US Coast Guard to keep Ballard Bridge closed to boat traffic.

6:30 PM (approximately) – SDOT’s TOC contacts the WSDOT Alaskan Way Viaduct (AWV) Project Office to ask if the STP work site could be used for truck storage. Around the same time WSDOT NW Region contacts the AWV Project Office seeking assistance from STP to store the truck on their property and asking if any equipment could be used to support the response.

6:40 PM – WSDOT Alaskan Way Viaduct Project Office and SPD communicate about the response. The WSDOT AWV Project Office and SPD exchange information about the possible use of STP property to store the truck. STP offers the use of a Comanche backhoe to move the truck out of the right of way.

6:45 PM – STP and SPD communicate, and SPD receives permission to store the damaged trailer on STP’s project site.

7:08 PM – The trailer is righted.



With the damaged left landing gear Lincoln had to lift the trailer in order to get another tractor hooked up. The second tractor was owned by Sunset Transport, Inc.

7:37 PM – Trailer is reattached and attempts are made to drive trailer away but it was deemed too unstable. The decision is made to partially off-load the truck and transfer a portion of the load to a second trailer.



8:54 PM – Opening of truck begins. The contents of the trailer had shifted considerably and there were safety concerns about the cargo coming out of the trailer. Safety protocols were employed.

9:24 PM – Truck open and offloading begins. Individuals on scene use STP Sky Jacks to unload half to two thirds of the cargo and move it to a new trailer.





10:00 PM –SPD and SDOT plan additional traffic mitigation measures and work center activations for the morning commute if the incident is not cleared by 2:00 AM on March 25.

10:45 PM – Tractor removed from scene.

11:00 PM – Off-load and transfer completed.

11:25 PM – Lincoln Towing leaves site.



11:37 PM – After clean-up of incident site concludes, the Alaskan Way Viaduct reopens.

## Application of the Emergency Traffic Management and Closure Plan for the Alaskan Way Viaduct

As outlined in the Alaskan Way Viaduct (AWV) Closure Plan, Scenario 3C provides a framework for responding to a short-term closure in the southbound direction only. Although this incident was not a planned closure, which is the focus of the AWV Closure Plan, the plan provided good guideline protocols:

The required actions and the responses that occurred during the incident are as follows:

Action	Responsible Party	March 24 Actions
If not already aware of the situation advise SPD and SFD using direct intercom	Charles St Dispatcher	SPD/SFD notified via 911
Upon being made aware of the closure of the Alaskan Way Viaduct, contact any of the following to initiate Scenario 3C: 1. Director of Traffic Management 2. Manager of Traffic Operations 3. Manager of Signal Operations 4. Director of Street Maintenance 5. Director of Roadway Structures	Charles St Dispatcher	SDOT TOC contacted SDOT leadership staff
Notify WSDOT NW Region Traffic Systems Management Center	Street Maintenance Senior Supervisor on Duty	SDOT TOC contacted WSDOT NW Region at approximately 2:33 PM
Notify Metro to use established alternate routes	Incident Oversight Team	SDOT TOC contacted Metro at approximately 2:33 PM

Immediate actions (to be initiated concurrently):

<b>Action</b>	<b>Responsible Party</b>	<b>March 24 Actions</b>
<p>Mobilize crews to staff three trucks with lighted “arrow boards.” Upon request of SPD dispatch to locations specified in SPD’s “Alaskan Way Viaduct Closure Plan.”</p> <ol style="list-style-type: none"> <li>1. Columbia St at ramp to SB SR-99 at 1<sup>st</sup> Ave</li> <li>2. SB Aurora Ave at John St</li> <li>3. SB Elliot Ave at SB ramp to SR-99</li> </ol>	<p>Street Maintenance Senior Supervisor on Duty</p>	<p>SPD deployed patrol cars to accomplish task</p>
<p>SPD to post officers at identified priority locations per AWV Closure Plan to assist in moving traffic through intersections.</p>	<p>SPD (from SPD AWV Closure Plan)</p>	<p>SPD staffed Aurora &amp; Denny/N39 &amp; Denny (other collision)/Aurora &amp; Bell. Other traffic personnel were staffed at other accident sites and around Sounders game.</p>
<p>Incident Oversight Team – Assess situation and make determination to continue as proscribed in Action Plan or modify as Needed</p>	<p>Incident Oversight Team</p>	<p>SDOT TOC performed action</p>
<p>Provide prepared messages to the media</p>	<p>SDOT/SPD PIO</p>	<p>SDOT and SPD used Twitter as method of providing real-time information to media</p>
<p>Implement Signal Timing Plans for Off-Peak and PM Peak</p>	<p>SDOT Traffic Management Center</p>	<p>Traffic responsive corridors automatically adjusted signals</p>

Follow up actions (to be taken if deemed beneficial in collaboration with SDOT's Incident Oversight Team and SPD's Traffic Division):

Action	Responsible Party	March 24 Actions
Locate Portable Changeable Message Signs with message "SR-99 Closed – Use Alternate Routes" at: <ol style="list-style-type: none"> <li>1. SR 99 at N 145<sup>th</sup> St</li> <li>2. SR 99 at N 130<sup>th</sup> St</li> <li>3. SR 99 at N 85<sup>th</sup> St</li> <li>4. SR 99, North of Aurora Bridge</li> </ol>	Incident Oversight Team	SDOT used fixed Digital Message Signs at: <ul style="list-style-type: none"> <li>-Aurora and Ward</li> <li>-Aurora and 39<sup>th</sup></li> <li>-Aurora and 96<sup>th</sup></li> <li>-Aurora and 137<sup>th</sup></li> <li>-15<sup>th</sup> Ave NW and 61<sup>st</sup></li> <li>-Holman Rd and 14<sup>th</sup> Ave</li> </ul>
Monitor conditions	Incident Oversight Team	SPD and SDOT TOC monitored the incident until 11:41 PM
Adjust signal timing plan if warranted	Incident Oversight Team	Traffic responsive corridors automatically adjusted signals
Monitor for demobilization	Incident Oversight Team	Joint SDOT/SPD team call at 10PM. Received all clear at 11:48 PM.

### Recommendations

Based on the information provided above about the incident and the City's response to it, the following recommendation is made to improve collision response within the City of Seattle:

1. By June 30, SPD and SDOT will expeditiously develop protocols that prioritize incident response decision making on arterial streets: first, to save lives and protect public health; second, to minimize and mitigate impacts to traffic congestion; and third, to minimize damage to public and private property.
2. By June 30, review the City's coordinated response protocols between departments, including SDOT, SPD, SFD, FAS, EOC, and elected officials on the following. Engage external traffic incident management consultant(s) to ensure we implement best practices, focusing on:

- a. Ensuring that current City practices are best practices according to national standards, such as federal Traffic Incident Management guidelines.
  - b. Developing clear written protocols for Traffic Incident Management to better coordinate City agencies and private partners. These protocols should set forth which agency has operational control under what circumstances and what resources are available for mobilization.
  - c. Identify and implement additional training to ensure best practices and better coordination are followed. For example, SDOT and Seattle Public Utilities are trained in TIM (Traffic Incident Management) whereas SPD trains in NIM (National Incident Management). All City agencies should be trained in a common core for incident management.
  - d. Ensure that City personnel have requisite expertise to make sophisticated on-scene assessments or have access to necessary external expertise. For example, if on-scene personnel had access to on-scene engineer, more critical information and analysis could have been incorporated into the decision-making process.
  - e. What other resources (equipment, personnel, or private sector relationships) could be brought to bear on incident management. For example, would prior agreements and protocols have made STPs loan of Skyjacks to unload the trailer easier and quicker? If prior agreements were in place with the Port of Seattle or other private loading companies, could additional heavy equipment been utilized?
  - f. Ensure that current communications systems are adequate to ensure accurate and timely responses to incidents. For example, was there a delay in the arrival of heavy class tow-truck?
  - g. Develop a scope of work to create incident management signal timing plans and re-routes for incidents on and around SR-99 and the West Seattle Bridge, including sensors, automated message signs and algorithms that will activate the plans. SPD and SDOT will partner with other city agencies in multi-disciplinary training sessions to provide responders with a better understanding of the goals of traffic incident response and the roles that various responder groups perform. These training sessions will help improve on-scene communication, cooperation, and coordination.
3. Convene an inter-departmental team that will meet monthly to review and discuss the consultant findings, and develop an action plan for implementation, performance monitoring and reporting by participating departments.