



## REPORT OF MEETING

**Date and Time: Friday, February 26, 2016, 9:00 – 10:30 AM**

**Location: The Lyceum, 227 Lawrence Street, Hartford**

**Subject: Public Safety Roundtable**

### 1. Attendees

Name	Organization	Email
Chris Chaplin	AMR	<a href="mailto:cchaplin@amr-ems.com">cchaplin@amr-ems.com</a>
David Skoczulek	ASM/Aetna Ambulance	<a href="mailto:davids@asm-aetna.com">davids@asm-aetna.com</a>
Colin Baummer	Connecticut Department of Transportation (CTDOT)	<a href="mailto:colin.baummer@ct.gov">colin.baummer@ct.gov</a>
John Korte	CTDOT Highway OPS	<a href="mailto:john.korte@ct.gov">john.korte@ct.gov</a>
John Oates	East Hartford Fire	<a href="mailto:joates@easthartfordct.gov">joates@easthartfordct.gov</a>
Darren Hudson	Hartford Fire	<a href="mailto:hudson001@hartford.gov">hudson001@hartford.gov</a>
Cheryl Assis	CRCOG	<a href="mailto:cassis@crcog.org">cassis@crcog.org</a>
Benjamin Neumon	National Guard	<a href="mailto:margaret.e.wolk.nfg@mail.mil">margaret.e.wolk.nfg@mail.mil</a>
Austin Jordan	Security Communication Access Network (SCAN)	<a href="mailto:austinjordan@hartfordguides.org">austinjordan@hartfordguides.org</a>
Jack Mayoros	St. Francis Hospital	<a href="mailto:jmayoros@stfranciscare.org">jmayoros@stfranciscare.org</a>
Marc Petruzzi	State Police	<a href="mailto:marc.f.petruzzi@ct.gov">marc.f.petruzzi@ct.gov</a>
Richard T. Winn	West Hartford Fire	<a href="mailto:rwinn@westhartfordct.gov">rwinn@westhartfordct.gov</a>
Ed Jacovino	West Hartford Police	<a href="mailto:ejacovino@westhartfordct.gov">ejacovino@westhartfordct.gov</a>
Jeff Rose	West Hartford Police	<a href="mailto:jrose@westhartfordct.gov">jrose@westhartfordct.gov</a>
Rich Armstrong	CTDOT	<a href="mailto:richard.armstrong@ct.gov">richard.armstrong@ct.gov</a>
Ruth Fitzgerald	Fitzgerald & Halliday, Inc. (FHI)	<a href="mailto:rfitzgerald@fhiplan.com">rfitzgerald@fhiplan.com</a>
Mike Morehouse	FHI	<a href="mailto:mmorehouse@fhiplan.com">mmorehouse@fhiplan.com</a>
Brian Natwick	CTDOT	<a href="mailto:brian.natwick@ct.gov">brian.natwick@ct.gov</a>
Tim Ryan	TranSystems Corporation	<a href="mailto:tpryan@transystems.com">tpryan@transystems.com</a>
Anthony Colangelo	CTDOT	<a href="mailto:anthony.colangelo@ct.gov">anthony.colangelo@ct.gov</a>
Jillian Massey	CRCOG	<a href="mailto:jmassey@crcog.org">jmassey@crcog.org</a>
Jackie McKinney	Artspace	<a href="mailto:jdmckinney07@gmail.com">jdmckinney07@gmail.com</a>
Nick Mandler	TranSystems Corporation	<a href="mailto:ncmandler@transystems.com">ncmandler@transystems.com</a>
Dave Stahnke	TranSystems Corporation	<a href="mailto:dkstahnke@transystems.com">dkstahnke@transystems.com</a>

### 2. Meeting Schedule and Format

The roundtable discussion took place on Friday, February 26th, 2016 from 9:00 to 10:30 AM. The meeting consisted of a presentation by Nick Mandler of TranSystems Corporation (TSC), and was followed by a roundtable discussion between representatives of area emergency and public safety service providers.

Attendees were given printed copies of the meeting's agenda and project folders containing English and Spanish-language copies of the 10th edition of the project newsletter, bilingual project overview pamphlets, bilingual fact sheets, and bilingual business cards.

### **3. I-84 Hartford Project Presentation**

N. Mandler welcomed everyone and introduced himself. He thanked the group for attending and stated the purpose of the day's meeting. He said the purpose of the roundtable was to share information about the I-84 Hartford Project, learn more about public safety needs, and gather interests and concerns related to the project. He then asked all in attendance to introduce themselves.

N. Mandler explained the purpose of the I-84 Hartford Project, which is to address the bridges' structural deficiencies, operational and safety deficiencies, and mobility deficiencies. He noted the project limits and the complexities of the narrow and winding corridor. Drivers are competing to get on and off the highway, which causes them to weave from lane to lane and results in an average of two collisions per day. He then provided a history of the project and noted the study limits. The project area extends from approximately Flatbush Avenue to the I-91 interchange. He also reviewed the project schedule and said the project is currently in the environmental phase, which includes developing alternatives and preparing documents for the National Environmental Policy Act (NEPA).

N. Mandler next provided an overview of the mainline alternatives. He stated that there are generally four vertical alignments and a number of horizontal alignments. He continued on to describe the various interchange options on the eastern and western portions of the corridor, noting the likely closure of access ramps at Trumbull and High Streets. He explained rough cost estimates for each alternative.

N. Mandler explained that the team has learned a number of things related to the mainline analysis, including that the existing highway has too many on- and off-ramps and that poor intersection operations affect the mainline. He said that the Sigourney Street ramps are important to a well-functioning main line. He displayed various traffic models for intersection operations respective to each mainline alternative. He described that there are three color rankings (red, yellow, and green) denoting the intersection's capability to move traffic under various alternatives, whereby red denotes poor performance, yellow denotes moderate performance, and green denotes good performance at that intersection. Explaining that the elevated and tunnel options perform poorly for traffic and mobility, he focused on the lowered highway options and introduced new possibilities for local streets and improved access ramps.

N. Mandler displayed several possible east and west alignment options for a lowered highway, noting the necessary relocation of the railroad and potential building impacts. He showed how highway realignment could open up new land for development, including a new Union Station rail annex.

N. Mandler then introduced the new capped highway alternative. He stated that the capped highway would sit at a lower elevation than the at-grade Alternative 3, but higher than the tunneled Alternative 4. He said that this allowed for Sigourney Street ramps without the significant building impacts to the Aetna campus required by the tunnel.

N. Mandler noted the extents to which the cap could reach. He said that there are three options for extending the cap; Option 1 places a 950-foot cap between Asylum and Broad Streets at a cost of \$325-400 million; Option 2 places a 1,800-foot cap between Asylum Street and just beyond Flower Street before impacting the Park River Conduit at a cost of \$600-750 million; and Option 3 places a 3,000-foot cap between Asylum and Sigourney Streets at a cost of

\$1,350-1,650 million, inclusive of the costs of property acquisition along Capitol Avenue and the relocation of a portion of the Park River Conduit.

Turning towards construction, N. Mandler explained the differences between traditional and accelerated construction methods. He said that traditional construction aims to maintain traffic flows on the corridor as construction is ongoing, builds bridge elements on-site, and can often be more expensive due to temporary construction methods. In contrast, he said that accelerated construction usually has a shorter duration, with bridge elements prefabricated off-site. He cited the example of accelerated construction for bridge replacement on I-84 in Southington, Connecticut. He noted that accelerated construction typically employs unconventional methods for traffic management.

N. Mandler explained that the decision to maintain traffic during construction could influence the selected highway alignment, as well as the selected construction approach. He noted that closing some lanes or sections of the highway during construction could: expedite construction, minimize and avoid property impacts, reduce community and economic impacts, reduce costs, and save time. He offered the example of SmartFix40, a reconstruction project of two and a half (2.5) miles of highway I-40 in Knoxville, Tennessee. He noted similarities between I-84 and I-40, including left-hand on-ramps and unsafe weaving patterns. He said that as a result of extensive public outreach and improvements to the local road network, the FastFix40 team was able to close I-40 for 14 months in order to accelerate construction. He said that traditional construction for the project would have been over three years.

N. Mandler next introduced the I-84 / I-91 Interchange Study. He explained that the purpose of the study would be to analyze traffic, develop congestion relief strategies, and consider the relocation of I-84 for a new interchange with I-91. He stated that at 275,000 vehicles a day, the interchange is the most traveled in the state. He noted that the area is a bottleneck as both highways are reduced from three to two through lanes in each direction. He then introduced a series of graphics noting possible alignments for a relocated I-84; the study will look at improving the existing interchange and providing three through lanes over the existing Bulkeley Bridge, or rerouting the highway to the north or south for new connections to I-91 and I-84 east of the Connecticut River.

N. Mandler closed the presentation by stating that public input is critical to the process. He encouraged attendees to visit the project website. He then asked Mike Morehouse, of Fitzgerald & Halliday, Inc. (FHI), to monitor a discussion of the presentation.

#### **4. Strategic Highway Safety Plan**

Colin Baummer, of Connecticut Department of Transportation (CTDOT), next gave a brief overview of CTDOT's Strategic Highway Safety Plan, which aims to identify high-risk locations on the state highway network and apply low-cost accident mitigation techniques where possible. This plan is developed by the Division of Traffic Engineering and has resulted in such projects as the wrong-way entry deterrent project on Connecticut freeways.

#### **5. Discussion**

One attendee requested further clarification on the capped highway alternative, particularly how it would differ from the very expensive tunnel alternatives. M. Morehouse answered that the tunneled highway (Alternative 4C) would cost roughly \$2 million per linear foot, whereas the capped highway would cost \$400,000 per linear foot, or 20% of the cost of the tunnel. He added that there is still much to learn about the cap, and the project team would work to identify total construction costs as well as determine the cap's added-value.

An audience member said that first responder access is difficult in a tunnel. They asked if this would likewise be an issue with the capped alternative. M. Morehouse said that the highway can be capped selectively to improve access, in which case the highway could be covered over shorter areas. He said that incidents under capped portions would still be an issue, as would the transition between natural and artificial light.

One individual asked if there would be restrictions as to what types of cargo could be carried through the tunnel or cap. M. Morehouse said that no, there would not be any restrictions. He stated that it is essential that I-84 be able to carry all cargo, and that the project team would ensure that all alternatives could handle any type of cargo. N. Mandler noted that longer tunnels require increasingly extensive incident mitigation techniques in order to avoid hazardous material restrictions.

In regard to construction method and duration, there was a comment that a shorter construction duration would be better. The commenter noted, however, that Tennessee has a longer construction season than Connecticut because of different weather patterns.

One person asked what the project timeline was. They asked when construction would begin. M. Morehouse said construction could begin as early as 2022, but that many factors could influence a construction start date. He cited the environmental process, alternative selection, and identifying a funding source as some of these contributing factors.

There was a recommendation that the project team look at diversion routes in the event that the highway is closed. They said that if other routes are not identified, the project could be a disaster. M. Morehouse strongly agreed. He said that CT *fastrak* service would be maintained throughout construction and possibly enhanced, in addition to the Hartford Line. He said that local roads would be improved, inclusive of traffic light optimization and enhancements to bicycle, pedestrian, and local bus service facilities. He advised that the project team will also develop a smartphone tool to alert travelers of construction diversions.

An individual commented that tunnel access concerns depend on off / on ramps. M. Morehouse agreed and said that ventilation and working in a closed environment would also be concerns for public safety providers. He said that a tunnel is not ideal from a public safety point of view, and that there is still much to learn.

One commenter stated that one goal of the project was to discourage motorists from using I-84 for local trips. They explained that the design reflected this aim, and that the addition of new feeder roads to the local street network would help to keep local travelers off the highway. They said this was a good thing.

One attendee said that those who operate ambulance services cross the city multiple times a day. They said ambulance providers would need an alternate route to cross the Connecticut River during construction.

There was a comment that the Route 2 flyover ramp to I-84 frequently backs up. The commenter stated that access from Route 2 to I-84 should be widened, and asked if there was any chance of providing direct access from Route 2 to I-91 in the future. M. Morehouse said that this would be looked at as part of the I-84 / I-91 interchange study. He noted that there are 22 ramps in that area of East Hartford, an excessive number.

There was a general comment that as best practice, people should not use the highway for local trips.

M. Morehouse asked the group if they had any concerns about changes to local streets. In particular, he asked if the group had any issue with the closure of access ramps at High and Trumbull Streets. A representative of the State Police said they did not take great issue with the closure of those ramps. They said that the State Police only use those ramps when clearing an accident off of I-84. They explained that if shoulders are included in the design, as currently planned, closure of the ramps should be less of an issue.

There was a comment that 12-foot shoulders would be necessary to comply with standards of the American Association of Highway and Transportation Officials (AASHTO). M. Morehouse said that there could be an exception made for this project, as there is not enough room in the corridor for a full AASHTO cross section.

#### **6. Other Informal Comments / Discussions at the Meeting**

The American Automobile Association (AAA) should have been invited to join in the roundtable discussion.