STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546
Phone: (860) 594-3189

August 22, 2016

Ms. Amy Jackson-Grove
Division Administrator
Federal Highway Administration
628-2 Hebron Avenue, Suite 303
Glastonbury, Connecticut 06033

Dear Ms. Jackson-Grove:

Subject: **Design Approval and Authorization to Proceed with Final Design Activities**
State Project No. 0063-703
Federal-Aid Project No. TBD
Relocation of Interstate 91 (I-91) Northbound Interchange 29 and Widening of I-91 NB and Route 15 NB to I-84 Eastbound
City of Hartford and Town of East Hartford

LOCATION:

The proposed project is located on Interstate 91 (I-91) northbound (NB), and Route 15 NB and southbound (SB) in the City of Hartford and Town of East Hartford, beginning at the Wethersfield Cove (MP 35.50) and ending on Route 15 NB approximately 850 feet north of the Silver Lane underpass (MP 83.00).

PURPOSE AND NEED:

The purpose of this project is to address safety concerns associated with congestion and operational failures at Interchange 29 on I-91 NB, which connects to Route 15 NB and I-84 eastbound (EB).

Traffic Crash Data from the Department's Connecticut Accident Summary Tables (CAST) indicated that there were 583 crashes recorded on I-91 NB within the project limits (MM 35.50 to MM 37.05) between January 1, 2011 and December 31, 2013. Of the 583 recorded crashes, 140 were injury crashes with a total of 228 injuries (1 fatality and 38 type "B" injuries).

Most sections of I-91, from the Wethersfield/Hartford town line to Interchange 29, appears on the 2011-2013 Suggested List Of Surveillance Study Sites (SLOSSS)[1]. There are a total of twelve SLOSSS[1] locations on I-91 within the project limits. Ten of the SLOSSS[1] locations are on I-91 NB as shown in the following chart.

[1] "Pursuant to Title 23 United States Code Section 409, this data is not admissible and not discoverable in any federal or state court proceeding, and cannot be considered for any other purpose in any action for damages arising from an occurrence at a location addressed in this report."

Mile Marker Limits	Location Description	SLOSSS[1] Sequence Number	Traffic Crash Data for I-91 NB					
			Crashes	Injuries	Injury Severity			
					Fatality	A	B	C
35.54 – 5.59	I-91 NB Interchange 27	1316	31	7	-	-	1	6
35.77 – 35.86	I-91 NB Interchange 28	691	23	8	-	-	-	8
35.96 – 36.04	Overpass of Ramp to SB I-91 & Route 15	954	16	7	-	-	-	7
36.12 – 36.31	Overpass of Airport Rd	1394	19	10	-	-	3	7
36.32 – 36.40		19	96	55	1	-	15	39
36.44 – 36.52		193	45	13	-	-	-	13
36.59 – 36.67	Overpass of Route 15	82	79	35	-	-	4	31
36.71 – 36.79		4	146	44	-	-	6	38
36.82 – 36.86	I-91 NB Interchange 29	383	29	10	-	-	-	10
36.91 – 36.97	Overpass of MDC Sewer Pipe	1538	7	4	-	-	3	1

A majority of the recorded crashes on I-91 NB within these SLOSSS[1] locations were "rear-end" or "sideswipe – same direction" type crashes. The higher than normal crash frequency appears related to congestion due to the lane drop at Interchange 27 and to the queue of traffic in the right lane approaching Interchange 29.

The Traffic Crash Data on Route 15 indicated that there were 241 crashes recorded within the project limits (MM 81.20 to MM 83.0) between January 1, 2011 and December 31, 2013. Of the 241 recorded crashes, 80 were injury crashes with a total of 124 injuries (5 fatalities and 19 type "B" injuries). The crash types were 55% "rear-end", 25% "fixed object" and 14% "sideswipe – same direction".

Of the 241 crashes on Route 15, there were 94 crashes recorded in the northbound direction, 32 of which were injury crashes, with a total of 54 injuries (4 fatalities and 11 type "B" injuries).

Route 15 appears on the 2011-2013 SLOSSS[1] at three locations within the project limits: from Exit 86 SB off-ramp to the on-ramp from I-91 NB Interchange 29 (MM 81.50 to MM 81.81) rated as Sequence No. 1058, from Hartford to the East Hartford town line (MM 81.90 to MM 81.94) rated as Sequence No. 1439, and in the vicinity of the NB on-ramp from Route 5 (MM 82.54 to MM 82.64) rated as Sequence No. 1602. Upon review of the crash data, it appears that the majority of the crashes at SLOSSS Sequence Nos. 1058 and 1439 occurred in the southbound direction and appears related to the lane drop at Exit 86 to I-91 SB.

DESCRIPTION:

Due to a combination of contributing factors such as the vertical geometry and single-lane configuration of the I-91 Exit 29 off-ramp, the I-91 traffic volumes at or near capacity, and the heavy traffic weave on the Charter Oak Bridge, there are significant traffic delays on

I-91 NB which result in an above average crash frequency on I-91. Traffic routinely backs up from Exit 29 onto the I-91 NB mainline, taking up the right lane of the three-lane facility. The length of the back-ups varies, but has been observed extending approximately 1.4 miles to the vicinity of the Wethersfield Cove. The condition is made far worse by the tendency of drivers to cut into the right-lane queue from the center lane, drastically increasing the congestion of the center lane also.

Proposed Improvements: The following improvements are proposed (south to north):

Widen I-91 NB from Interchange 27 to Interchange 29 – Widen I-91 NB for approximately 6,700 feet to relieve congestion, address significant safety concerns and provide an efficient I-91 to I-84 connection by extending the four-lane travel lane section from Interchange 27 to Interchange 29. This widening will occur on the easterly side of I-91 and will require modifications to the following four bridges: Bridge No. 813 (I-91 over Route 15), Bridge No. 3613 (I-91 over an 8'x12' box culvert drainage crossing), Bridge No. 1466 (I-91 over the entrance ramp to I-91 SB and Route 15 SB), and Bridge No. 480 (I-91 over Airport Road). Due to subsurface soil conditions, it is anticipated that the use of lightweight fill material will be required in fill areas approaching Bridge No. 480 and the Charter Oak Bridge. The median will be reconstructed and portions of the underlying concrete pavement will be rehabilitated. Illumination will be relocated to account for the roadway widening.

Replace and Relocate the I-91 NB Exit Ramp at Interchange 29 with Major Diverge – To address the adverse vertical grade and limited capacity of the existing ramp, it is proposed to remove the ramp and provide a major diverge on I-91 NB just south of Bridge No. 5922 (I-91 over Route 15). I-91 will be widened to accommodate the diverge which will consist of three lanes to the right, maintaining I-91 traffic over Bridge No. 5922 (existing condition), and two lanes to the left via a new bridge over Route 15 SB.

The proposed diverge requires the realignment of Route 15 NB and widening of the southern approach to the Charter Oak Bridge (Bridge No. 6000A, Route 15 NB over I-91, Reserve Road and rail line).

The NB Charter Oak Bridge (Bridge No. 6000A) consists of a 10-foot left shoulder, three 12-foot travel lanes and a 10-foot right shoulder. In order to accommodate the two lanes each from I-91 and Route 15, it is proposed to modify the existing pavement markings to provide a 4-foot left shoulder, four 11-foot travel lanes and a 10-foot right shoulder for approximately 850 feet. The pavement markings will eventually transition back to three 12-foot travel lanes and 10-foot shoulders.

Widen Route 15 NB from the Charter Oak Bridge to the Silver Lane Underpass – The four travel-lane section on Route 15 NB formed by the two entering lanes from I-91 merging with the two travel lanes on Route 15 is extended over Charter Oak Bridge until Interchange 90 where there is a lane-drop to Route 2 and Route 5. The remaining 3 travel lanes will need to be reduced to two prior to the Route 15 merge with I-84. Due to the proximity of the 4-lane merge and the lane-drop at Interchange 90, it was determined that Route 15 would be widened to three travel lanes from east of the Charter Oak Bridge to the Silver Lane underpass, and provide a lane-drop prior to its merge with I-84 East. This widening addresses congestion concerns on Route 15 and allows a more desirable distance from Interchange 29 on I-91 to merge from three travel lanes to two prior to its merge with I-84 East. This improvement will require widening Bridge No. 6043A (Route

15 NB over Route 5) and Bridge No. 5796 (Route 15 over Silver Lane). Illumination will be relocated to account for the roadway widening.

OVERSIGHT DETERMINATION:

This project has been designated as a Project of Division Interest and will have federal oversight.

PUBLIC INVOLVEMENT:

In conformance with the Department's Public Involvement Guidance Manual (Revision of 2009), the Department has undertaken public involvement efforts, described as follows:

The Department conducted public informational meetings on April 26, 2016 in Hartford at the Hartford Public Works Department, Keith Chapman Conference Room and April 28, 2016 in East Hartford at the Raymond Library. The meeting in Hartford was not well attended as only two members from the public were in attendance. The meeting in East Hartford was well attended with 20 members of the public and the Mayor of East Hartford in attendance. Enclosed are the reports of the public meetings. There were no commitments made to the municipalities and/or public. The project as proposed was supported by the public, City of Hartford, and Town of East Hartford.

ENVIRONMENTAL DOCUMENTATION:

An Environmental Assessment was approved for circulation on July 6, 2016. The FONSI and the Section 4 (f) Statement were sent to FHWA on August 17, 2016 and approval is pending.

ENVIRONMENTAL PERMITS:

The following permits are anticipated:

IW General (IWRD)
FM-General
401 WQC via PGP Addendum (IWRD)
US ACOE Cat 2
Stormwater Construction General Permit (CTDEEP)
Disruption Authorization

UTILITIES:

The following private and public utilities may require relocation as part of the project:

Comcast of Connecticut, Inc.
Frontier Communication of Connecticut
Eversource Energy – Electrical Distribution
Eversource Energy – Transmission
Level 3 Communications, LLC.
Connecticut Natural Gas Corporation
Lightower Fiber Networks
The Metropolitan District (MDC)

RAILROAD:

The Charter Oak Bridge spans over a railroad owned by Connecticut Southern Railroad, Inc. (CSOR). The railroad track may require realignment in order to construct the footing to one of the widened piers of the NB Charter Oak Bridge (Bridge No. 6000A).

RIGHTS-OF-WAY:

Construction easements and Drainage Right-of-Way (DROW) are anticipated for this project. Seven parcels require temporary construction easements and/or DROWs which include a residential property, MDC, CL&P, industrial, City and State agency.

HAZARDOUS/CONTAMINATED MATERIALS:

The Department's Environmental Compliance Section conducted a Contaminated Materials Screening Evaluation and has determined that tasks 210, 211, 310, and 910 are required for soil and groundwater investigation. Tasks 710 and 720 are required for asbestos and lead investigations. A Disruption Authorization will be required for potential impacts to the entombed landfill. An Environmental Land Use Restriction (ELUR) will be needed for the property owned by N/F Conn. Resources Recovery Authority for temporary impacts during construction.

MAINTENANCE AGREEMENTS:

No maintenance agreements are anticipated as part of the project.

DESIGN FEATURES:

Design Standards:

CTDOT: Highway Design Manual (2003)
Bridge Design Manual (2003)
AASHTO: A Policy on Geometric Design of Highways and Streets (2011)
LRFD Bridge Design Specifications (2012)

Interstate 91 Northbound

Functional Classification: Urban Freeway
Type of Roadside Development: Built-up
Federal-Aid System: Interstate
Roadway Configuration: Three lanes (existing), four lanes (proposed)
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 65,800
Pavement Type: Bituminous concrete over concrete base (existing)
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	70 mph	50-70 mph	70 mph
Travel Lane Width	12’	12’	12’
Shoulder Width (Left) Shoulder Width (Right)	12’ (Left) 12’ (Right)	2’ – 12’ (Left) 10’ (Right)	6’ – 8’ (Left) (1) 10’ (Right)
Cross Slope Travel Lane	1.5% - 2%	1.5% - 2%	1.5% - 2%
Cross Slope Shoulder (W≥4 ft)	4% - 6%	4%	4%
Stopping Sight Distance	730’	623’	597’ (1)
Minimum Radius	1665’ - 2050’	2565’	2565’
Superelevation Rate (e_{max})	6%	4.8%	4.8%
Maximum Grade	4%	3%	2.55%
Sag/Crest Vertical Curve (K Value)	193 - 247 (Crest) 157 – 181 (Sag)	121(Crest) 117 (Sag)	121(Crest) 117 (Sag)
Intersection Sight Distance	NA	NA	NA
Clear Zone	30’	30’	30’
Bridge			
Bridge No. 00813 Width (Curb to Curb)	61’	57.3’	79.2’
Minimum Vertical Clearance	16’-0”	13’-0”	14’-6” (min.) (1)
Bridge No. 01466 Width (Curb to Curb)	50’	54.5’	66.3’
Minimum Vertical Clearance	16’-0”	14’-0”	14’-6” (min.) (1)
Bridge No. 00480 Width (Curb to Curb)	50’	54.5’	68.3’
Minimum Vertical Clearance	14’-3”	13’-11”	14’-6” (min.)

(1) Design Exception Required

Route 15 Northbound

Functional Classification: Urban Freeway
Type of Roadside Development: Built-up
Federal-Aid System: NHS
Roadway Configuration: Two lanes (existing), three lanes (proposed)
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 49,500
Pavement Type: Bituminous concrete
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	70 mph	60 mph	70 mph
Travel Lane Width	12’	12’	11’ – 12’ (1)
Shoulder Width	2’ – 4’ (Left) 4’ – 8’ (Right)	4’ – 12’ (Left) 10’ – 14’ (Right)	4’ – 5’ (Left) 4’ – 12’ (Right)
Cross Slope Travel Lane	1.5% - 2%	1.5%	1.5% - 2%
Cross Slope Shoulder (W≥4 ft)	4.% - 6%	4% - 6%	4% - 6%
Stopping Sight Distance	730’	404’	404’
Minimum Radius	2050’	1920’	2050’
Superelevation Rate (e_{max})	6%	4.2%	4.2% (1)
Maximum Grade	6%	3.5%	3.5%
Sag/Crest Vertical Curve (K Value)	247 (Crest) 181 (Sag)	194 (Crest) 149 (Sag)	194 (Crest) 149 (Sag)
Intersection Sight Distance	NA	NA	NA
Clear Zone	30’	30’	30’
Bridge			
Br. No. 06000A Width Minimum Vertical Clearance (under)	54’ 16’-0”	48’ 16’-5”	60’ 16’-5”
Br. No. 06043A Width Minimum Vertical Clearance (under)	54’ 14’-3”	62’ 16’-10”	74’ 16’-9”
Br. No. 06043B Width Minimum Vertical Clearance (under)	42’ 14’-3”	101’ 16’-10”	101’ 16’-10”
Br. No. 05796 Width Minimum Vertical Clearance (under)	42’ 14’-3”	48’ 15’-8”	60’ 15’-8”

(1) Design Exception Required

Route 15 Southbound

Functional Classification: Urban Freeway
Type of Roadside Development: Built-up
Federal-Aid System: NHS
Roadway Configuration: Two lanes
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 50,100
Pavement Type: Bituminous concrete
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	70 mph	60 mph	60 mph
Travel Lane Width	12’	12’	12’
Shoulder Width	2’ – 4’ (Left) 4’ – 8’ (Right)	10’ – 12’ (Left) 12’ – 22’’ (Right)	10’ – 12’ (Left) 12’ – 22’ (Right)
Cross Slope Travel Lane	1.5% - 2%	1.5% - 2%	1% - 2%
Cross Slope Shoulder (W≥4 ft)	4% - 6%	4% - 6%	4% - 6%
Stopping Sight Distance	730’	637’	637’ (1)
Minimum Radius	2050’	3348’	3348’
Superelevation Rate (e_{max})	6%	5.8%	5.8%
Maximum Grade	6%	3.5%	3.5%
Sag/Crest Vertical Curve (K Value)	247 (Crest) 181 (Sag)	NA (Crest) NA (Sag)	432 (Crest) 585 (Sag)
Intersection Sight Distance	NA	NA	NA
Clear Zone	30’	30’	30’
Bridge			
Bridge Width (Curb to Curb)	NA	NA	NA
Minimum Vertical Clearance	NA	NA	NA

(1) Design Exception Required

Interstate 91 Northbound Exit 27 Off Ramp

Functional Classification: Ramp (Exit)
Type of Roadside Development: Built-up
Federal-Aid System: Interstate
Roadway Configuration: One lane
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 8,400
Pavement Type: Bituminous concrete
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	50 mph	25 mph	50 mph
Travel Lane Width	12’	14’	12’
Shoulder Width	4’ (Left) 10’ (Right)	4’ (Left) 8’ (Right)	4’ (Left) 10’ (Right)
Cross Slope Travel Lane	1.5%	1.5%	2.0%
Cross Slope Shoulder (W≥4 ft)	4%	4%	4%
Stopping Sight Distance	425’	510’	625’
Minimum Radius	1065’	820’	1100’
Superelevation Rate (e_{max})	6%	3.6%	4.9% (1)
Maximum Grade	3% - 5%	3.75%	3.7%
Sag/Crest Vertical Curve (K Value)	84 (Crest) 96 (Sag)	75 (Crest) NA (Sag)	166 (Crest) NA (Sag)
Intersection Sight Distance	NA	NA	NA
Clear Zone	24’	24’	24’
Bridge			
Bridge Width (Curb to Curb)	NA	NA	NA
Minimum Vertical Clearance	NA	NA	NA

(1) Design Exception Required

Interstate 91 Northbound Exit 28 Off Ramp

Functional Classification: Ramp (Exit)
Type of Roadside Development: Built-up
Federal-Aid System: Interstate
Roadway Configuration: One lane
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 1,600
Pavement Type: Bituminous concrete
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	25 mph	<25 mph	24 mph
Travel Lane Width	12’	14’	12’
Shoulder Width	4’ (Left) 10’ (Right)	4’ (Left) 8’ (Right)	4’ (Left) 10’ (Right)
Cross Slope Travel Lane	1.5%	2%	2%
Cross Slope Shoulder (W≥4 ft)	4%	4%	4%
Stopping Sight Distance	155’	177’	177’
Minimum Radius	190’	125’	135’ (1)
Superelevation Rate (e_{max})	6%	6%	6%
Maximum Grade	6% - 8%	4.9%	5.5%
Sag/Crest Vertical Curve (K Value)	12 (Crest) 26 (Sag)	39 (Crest) 33 (Sag)	30 (Crest) 31 (Sag)
Intersection Sight Distance	NA	NA	NA
Clear Zone	14’	14’	14’
Bridge			
Bridge Width (Curb to Curb)	NA	NA	NA
Minimum Vertical Clearance	NA	NA	NA

(1) Design Exception Required

Interstate 91 Northbound Exit 29 Off Ramp

Functional Classification: Freeway/Ramp Junction
Type of Roadside Development: Built-up
Federal-Aid System: Interstate
Roadway Configuration: One lane (existing), two lanes (proposed)
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 25,500
Pavement Type: Bituminous concrete
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	70 mph	45 mph	70 mph
Travel Lane Width	12’	14’	11’ - 12’ (1)
Shoulder Width	12’ (Left) 12’ (Right)	4’ (Left) 8’ (Right)	4 - 12’ (Left) (1) 12’ (Right)
Cross Slope Travel Lane	1.5% - 2%	1.5%	1.5% - 2%
Cross Slope Shoulder (W≥4 ft)	4%	4%	4%
Stopping Sight Distance	730’	403’	738’
Minimum Radius	2050’	1432’	2800’
Superelevation Rate (e_{max})	6%	5.2%	4.2%
Maximum Grade	3% - 5%	5%	3.25%
Sag/Crest Vertical Curve (K Value)	247 (Crest) 181 (Sag)	106 (Crest) 78 (Sag)	253 (Crest) 182 (Sag)
Intersection Sight Distance	NA	NA	NA
Clear Zone	30’	30’	30’
Bridge			
Proposed Bridge Bridge Width (Curb to Curb)	30’	NA	48’
Minimum Vertical Clearance (under)	16’-3”	NA	16’-3”

(1) Design Exception Required

US 5/Route 15 Northbound Exit 89 Off Ramp to Interstate 91 Northbound

Functional Classification: Connector (Exit)
Type of Roadside Development: Built-up
Federal-Aid System: NHS
Roadway Configuration: Two lanes
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 23,100
Pavement Type: Bituminous concrete
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	70 mph	40mph	70 mph
Travel Lane Width	12’	12’	11’ - 12’ (1)
Shoulder Width	4’ (Left) 10’ (Right)	10’ (Left) 10’ (Right)	12’ (Left) 12’ (Right)
Cross Slope Travel Lane	1.5%	1.5%	1.5%
Cross Slope Shoulder (W≥4 ft)	4%	4%	4%
Stopping Sight Distance	730’	705’	615’ (1)
Minimum Radius	2050’	1440’	1665’(1)
Superelevation Rate (e_{max})	6%	4.2%	5.8%(1)
Maximum Grade	3% - 5%	3.2%	3.1%
Sag/Crest Vertical Curve (K Value)	247 (Crest) 181 (Sag)	140 (Crest) 85 (Sag)	180 (Crest)(1) 153 (Sag)(1)
Intersection Sight Distance	NA	NA	NA
Clear Zone	30’	30’	30’
Bridge			
Bridge Width (Curb to Curb)	NA	NA	NA
Minimum Vertical Clearance	NA	NA	NA

(1) Design Exception Required

Route 15 Northbound On-Ramp from US Route 5 (Main Street)

Functional Classification: Ramp (Entrance)
Type of Roadside Development: Built-up
Federal-Aid System: NHS
Roadway Configuration: One lane
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 1,500
Pavement Type: Bituminous concrete
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	40 mph	<25 mph	Match Existing
Travel Lane Width	12’	12’	12’
Shoulder Width	4’ (Left) 10’ (Right)	4’ - 6’ (Left) 8’ - 12’ (Right)	8’ (Left) Match Existing - 14’ (Right)
Cross Slope Travel Lane	1.5%	1.5%	1.5%
Cross Slope Shoulder (W≥4 ft)	4%	4%	4%
Stopping Sight Distance	305’	>305	>305
Minimum Radius	510’	292’	292’
Superelevation Rate (e_{max})	6%	4.9%	4.9%
Maximum Grade	4 - 6%	2.85%	2.85%
Sag/Crest Vertical Curve (K Value)	44 (Crest) 64 (Sag)	105 (Crest) 125’ (Sag)	105 (Crest) 117 (Sag)
Intersection Sight Distance	NA	NA	NA
Clear Zone	14’	14’	14’
Bridge			
Bridge Width (Curb to Curb)	NA	NA	NA
Minimum Vertical Clearance	NA	NA	NA

Route 15 Northbound Exit 91 Off Ramp to Route 502 (Silver Lane)

Functional Classification: Ramp (Exit)
Type of Roadside Development: Built-up
Federal-Aid System: NHS
Roadway Configuration: One lane
Proposed Improvement Type: 4R freeway project
Design Traffic Volume (2039): 3,600
Pavement Type: Bituminous concrete
Control of Access: Full Control

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	40 mph	35 mph	Match Existing
Travel Lane Width	12’	14’	12’ – 16’
Shoulder Width	4’ (Left) 10’ (Right)	4’ (Left) 8’-12’ (Right)	4’ – 8’ (Left) 10’ – 12’ (Right)
Cross Slope Travel Lane	1.5%	1.5%	1.5%
Cross Slope Shoulder (W≥4 ft)	4%	4%	4%
Stopping Sight Distance	305’	534’	Match Existing
Minimum Radius	510’	445’	Match Existing
Superelevation Rate (e_{max})	6%	6%	6%
Maximum Grade	4% - 6%	2%	2%
Sag/Crest Vertical Curve (K Value)	44 (Crest) 64 (Sag)	116 (Crest) 116 (Sag)	116 (Crest) 116 (Sag)
Intersection Sight Distance	NA	NA	NA
Clear Zone	14’	14’	14’
Bridge			
Bridge Width (Curb to Curb)	NA	NA	NA
Minimum Vertical Clearance	NA	NA	NA

Route 530 (Airport Road)

Functional Classification: Minor Urban Arterial
Type of Roadside Development: Built-up
Federal-Aid System: Non-NHS
Roadway Configuration: Four lanes
Proposed Improvement Type: Spot improvement on non-freeway
Design Traffic Volume (2012): 24,800
Pavement Type: Bituminous concrete
Control of Access: Control by Regulation

Design Element	Standard	Existing	Proposed
Highway			
Design Speed	30 – 40 mph	35 mph	35 mph
Travel Lane Width	10’ – 12’	12’	12’
Shoulder Width	2’ – 4’ (Left) 4’ – 8’ (Right)	2’ – 5’	Match existing
Cross Slope Travel Lane	1.5% – 2%	1.5% – 2%	1.5% – 2%
Cross Slope Shoulder (W≥4 ft)	4% – 6%	4% – 6%	Match existing
Stopping Sight Distance	250’	> 250’	209’ (1)
Minimum Radius	345’	N/A	N/A
Superelevation Rate (e_{max})	4%	N/A	N/A
Maximum Grade	8%	< 8%	6.9%
Sag/Crest Vertical Curve (K Value)	29 (Crest) 49 (Sag)	N/A > 49	65 (Crest) 38 (Sag) (1)
Intersection Sight Distance	N/A	N/A	N/A
Clear Zone	14’	> 14’	Match Existing
Bridge			
Bridge Width (Curb to Curb)	N/A	N/A	N/A
Minimum Vertical Clearance (to Bridge 00480)	14’-3”	13’-11”	14’-6” (min.)

(1) Design Exception Required

EXCEPTIONS TO DESIGN STANDARDS:

The design exceptions required for the project include travel lane width, shoulder width, horizontal alignment, vertical curvature, stopping sight distance, superelevation and minimum vertical clearances. The design exceptions were approved on May 24, 2016.

BICYCLE AND PEDESTRIAN CONSIDERATIONS:

The project has been screened for bicycle and pedestrian access and an assessment form has been completed. The project is located along I-91 NB and Route 15 NB/SB where bicycle and pedestrian traffic is prohibited. No design elements or considerations for cyclists and pedestrians were included in the project.

MAINTENANCE AND PROTECTION OF TRAFFIC:

Stage construction will be required. It is anticipated that temporary closures of ramps within the project limits may be required. A Transportation Management Plan (TMP) will be developed during the final design phase of the project.

VALUE ENGINEERING:

A Value Engineering study was completed on June 20, 2016. The recommendations have been evaluated and resolutions for each recommendation have been documented. Those recommendations that will need further investigation will not significantly alter the proposed scope of the project.

ACCESS MODIFICATION APPROVAL:

The Interstate Conceptual Access Modification Report was submitted to FHWA on November 9, 2015 and the FHWA's Conceptual Approval was received on May 2, 2016. The scope and design of the project remains consistent with the Interstate Conceptual Access Modification Report as submitted for Conceptual Approval. A cost benefit analysis is not required since the proposed improvements revise an existing interchange. Additionally, the Preliminary Design Signing and Marking Plans were provided to FHWA during their review of the Interstate Conceptual Access Modification Report.

FUNDING:

The Preliminary Design phase is funded with 100% State funds. The Final Design and Rights of Way phases are funded under the National Highway Performance Program (NHPP) with 80% Federal and 20% State funds. The Construction phase is funded under the NHPP and National Highway Freight Program (NFRP) with 80% Federal and 20% State funds supplemented with Let's Go CT (100% State funds).

ESTIMATED TOTAL PROJECT COST:

Phase	Current Estimated Phase Cost	Previously Approved Phase Estimates Dated: 3/10/16
Preliminary Design	$6,450,000	$6,450,000
Final Design	$11,000,000	$11,000,000
Rights of Way	$140,000	$250,000
Construction*	$287,000,000	$287,000,000

*Costs should include all incidentals, contingencies and Utilities

SCHEDULE:

Property Maps to R.O.W.: December 2016

Permit Applications to O.E.P.: December 2016

FDP: November 8, 2017

DCD: December 20, 2017

ADV: January 17, 2018

Should you have any questions regarding this request, please contact the Project Manager, Sebastian A. Cannamela, at (860) 594-2698.

Very truly yours,

Susan M. Libatique
for Manager of Highway Design
2016.08.22 14:11:03-04'00'

Manager of Highway Design
Bureau of Engineering and Construction

In recognition of the above, Design Approval and Authorization to proceed with Final Design activities are hereby requested. *

APPROVED BY: David W. Kaskone DATE: 8/25/16

for: Amy Jackson-Grove
FHWA Division Administrator, FHWA

* Our design approval also hereby constitutes FHWA's final approval of the Interstate access modifications whose concept approval was granted by FHWA on May 2, 2016.

Enclosures

DESIGN APPROVAL ATTACHMENTS

Report of Public Informational Meetings and Newspaper Advertisements
Conceptual Access Modification Report Approval
Design Exception Report

ATTACHMENTS

Report of Public Informational Meetings and Announcements

Report of Meeting

Date of Meeting:	Tuesday, April 26, 2016
Location of Meeting:	Hartford Public Works Building, Keith Chapman Conference Room, 7P.M.
Subject of Meeting:	Public Informational Meeting
	State Project No. 63-703
	Relocation of I-91 NB Interchange 29 and Widening of I-91 NB and Route 15 NB
	City of Hartford and Town of East Hartford

IN ATTENDANCE:

Timothy Wilson	CTDOT – Highways	Constantin Banciulescu	Hartford – Dept. of Public Works
Susan Libatique	CTDOT – Highways		
Sebastian Cannamela	CTDOT – Highways	George Jacobs	CME Associates
Meredith Andrews	CTDOT – Highways	Bryan Busch	CME Associates
Dean Cerasoli	CTDOT – Construction	Dale Spencer	CME Associates
Mohammed Bishtawi	CTDOT – Construction	Jay Koolis	CME Associates
Douglas Hummel	CTDOT – ROW	Richard Canavan	CME Associates
Chellis Allen	CTDOT – ROW	Kelsey Morander	CME Associates

There were two residents in attendance.

Project Location and Purpose

The purpose of the project is to address safety concerns associated with congestion and operational deficiencies at the I-91 northbound Interchange 29, which routinely experiences significant traffic delays and above average crash frequency. Much of this can be attributed to the steep vertical grade and single-lane configuration of the ramp, the heavy traffic weave on the Charter Oak Bridge, and the near capacity volumes on I-91.

The proposed improvements include widening I-91 northbound to extend the four-lane travel section from Interchange 27 to Interchange 29 to relieve congestion, address significant safety concerns, and provide an efficient I-91 to I-84 connection. It is also proposed to remove the existing ramp at I-91 northbound Interchange 29 and provide a major diverge south of the I-91 bridge over Route 15 to address the existing adverse vertical grade and limited capacity of the existing ramp. The new I-91 diverge will consist of three lanes to the right, maintaining I-91 traffic (existing condition), and two lanes to the left, conveying traffic to Route 15 northbound via a new structure over Route 15 southbound. The existing pavement markings on the Charter Oak Bridge will be modified to accommodate the additional northbound lane from I-91. Additional improvements include widening of Route 15 northbound to three travel lanes, from the Charter Oak Bridge to the Silver Lane underpass, to address congestion concerns on Route 15 and allow a more desirable distance from Interchange 29 on I-91 to merge from three travel lanes to two prior to its merge with I-84 East. The existing noise barrier walls on Route 15 northbound will need to be relocated to account for the road widening. Noise barrier walls could potentially be added to Route 15 southbound from the Silver Lane on-ramp to the bridge over Main Street.

Presentation and Discussion:

Color plans and handouts containing general project information were made available, beginning at 6:30 pm, during an informal session prior to the meeting. The Department of Transportation (Department) began the meeting with an introduction and stated the purpose and need of the project. The purpose of the public informational meeting was to provide the public an opportunity to comment on the Preliminary Design of Project 63-703.

A full presentation of the project was prepared by CME Associates (CME) containing the following:

1. CME presented an overview of the proposed project. The existing I-91 NB Exit 29 off ramp would be removed from its current location and a new two-lane left-hand exit would be constructed. The new ramp configuration improves the existing geometry.

2. The existing traffic capacity and crash history were presented. Proposed improvements to address the corridor capacity and safety include repositioning of Route 15 NB traffic and I-91 NB to I-84 EB traffic, and lengthening the weave length and reducing the weaving of vehicles on the Charter Oak Bridge.

3. There would be no major right-of-way acquisitions. Drainage easements and temporary construction easements will be needed.

4. Temporary closure of ramps in the corridor during construction will be required but there will be no permanent ramp or major lane closures.

5. The construction staging and maintenance and protection of traffic were discussed. There would be four major stages of construction that are expected to take four years to complete.

6. The anticipated project schedule and cost were described as follows:

    - Final Design completion – November 2017
    - Advertise Project – January 2018
    - Start of Construction – Spring of 2018
    - Approximate construction cost is $287 million

A Right of Way discussion was presented by the Department outlining policies and procedures for acquisition of property if it were required.

The Department concluded the presentation by inviting the public attendees to ask questions or comment. One resident commented in favor of the project.

A representative from the City of Hartford indicated the City's support for the project and presented a letter of support from the Mayor of Hartford to the Department.

The project was well-received and supported by those in attendance. The meeting ended at approximately 8:15 P.M.

Report of Meeting

Date of Meeting:	Thursday, April 28, 2016
Location of Meeting:	Raymond Library, 840 Main Street, East Hartford 7P.M.
Subject of Meeting:	Public Informational Meeting
	State Project No. 63-703
	Relocation of I-91 NB Interchange 29 and Widening of I-91 NB and Route 15 NB
	City of Hartford and Town of East Hartford

IN ATTENDANCE:

Susan Libatique	CTDOT – Highways	Marcia Leclerc	East Hartford – Mayor
Sebastian Cannamela	CTDOT – Highways	Timothy Bockus	East Hartford – Dept. of Public Works
Meredith Andrews	CTDOT – Highways	Esther Clarke	East Hartford – Town Council
Douglas Hummel	CTDOT – ROW	Richard Gentile	East Hartford – Corporation Counsel
Chellis Allen	CTDOT – ROW	Robert Pasek	East Hartford – Town Clerk
Dean Cerasoli	CTDOT – Construction	George Jacobs	CME Associates
Mohammed Bishtawi	CTDOT – Construction	Mike Culmo	CME Associates
Mark Alexander	CTDOT – OEP	Dale Spencer	CME Associates
Paul Dickey	CTDOT – OEP	Jay Koolis	CME Associates
Christine Tedford	CTDOT – OEP	Richard Canavan	CME Associates
Robert Ramirez	FHWA	Kelsey Morander	CME Associates

Approximately 20 residents in attendance.

Project Location and Purpose

The purpose of the project is to address safety concerns associated with congestion and operational deficiencies at the I-91 northbound Interchange 29, which routinely experiences significant traffic delays and above average crash frequency. Much of this can be attributed to the steep vertical grade and single-lane configuration of the ramp, the heavy traffic weave on the Charter Oak Bridge, and the near capacity volumes on I-91.

The proposed improvements include widening I-91 northbound to extend the four-lane travel section from Interchange 27 to Interchange 29 to relieve congestion, address significant safety concerns, and provide an efficient I-91 to I-84 connection. It is also proposed to remove the existing ramp at I-91 northbound Interchange 29 and provide a major diverge south of the I-91 bridge over Route 15 to address the existing adverse vertical grade and limited capacity of the existing ramp. The new I-91 diverge will consist of three lanes to the right, maintaining I-91 traffic (existing condition), and two lanes to the left, conveying traffic to Route 15 northbound via a new structure over Route 15 southbound. The existing pavement markings on the Charter Oak Bridge will be modified to accommodate the additional northbound lane from I-91. Additional improvements include widening of Route 15 northbound to three travel lanes, from the Charter Oak Bridge to the Silver Lane underpass, to address congestion concerns on Route 15 and allow a more desirable distance from Interchange 29 on I-91 to merge from three travel lanes to two prior to its merge with I-84 East. The existing noise barrier walls on Route 15 northbound

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3. There would be no major right-of-way acquisitions. Drainage easements and temporary construction easements will be needed.

4. Temporary closure of ramps in the corridor during construction will be required but there will be no permanent ramp or major lane closures.

5. The construction staging and maintenance and protection of traffic were discussed. There would be four major stages of construction that are expected to take four years to complete.

6. Videos were played for the attendees to display a 3D visualization of the proposed improvements from the driver's perspective of the new I-91 NB Interchange 29 off ramp configuration to the Charter Oak Bridge, Route 5/15 NB and Route 5/15 SB.

7. The anticipated project schedule and cost were described as follows:

    - Final Design completion – November 2017
    - Advertise Project – January 2018
    - Start of Construction – Spring of 2018
    - Approximate construction cost is $287 million

A Right of Way discussion was presented by the Department outlining policies and procedures for acquisition of property if it were required.

The Department concluded the presentation by inviting the attendees to ask questions or comment. The questions/comments and responses are listed below:

Question – A resident asked if the tight curves on the Route 5/15 NB Interchange 90 off-ramp could be improved.
Response – The ramp will not be impacted by the project and there is no change anticipated.

Question – A resident expressed support for the project and asked why it could not be initiated sooner.
Response – There was a conceptual stage performed as part of the project so that the Department could study different alternatives. Design was initiated after a concept was chosen.

Question – A resident asked if the noise barrier walls recently constructed along Route 5/15 in the area of Silver Lane in East Hartford were going to be impacted and if so, could the materials be reused.
Response – The noise barrier walls will be relocated where Route 5/15 NB will be widened and, if feasible, the existing wall materials will be reused. A new noise barrier wall may be constructed along the Route 5/15 SB on ramp from Main Street.

Question – The Town of East Hartford (Town) asked what improvements will be made on the Route 5/15 SB corridor. The Town mentioned the weaving condition in the Route 5/15 SB direction between the on-ramp from Silver Lane and the off-ramp to Main Street/East River Drive and asked if the on-ramp could be removed since access can be provided to Route 5/15 SB nearby from East River Drive. A resident inquired if the on-ramp could be realigned for easier entry to Route 5/15 SB.
Response – The scope of work and project limits are I-91 NB and Route 5/15 NB. The Route 5/15 SB on-ramp would not be affected by this project and was not anticipated to be removed. The Department mentioned there are conceptual plans being developed to address Route 5/15 SB and will take the comment to consider for inclusion in a future project.

Question – A resident asked if any consideration has been given to expand CTFastrak to help alleviate some of the congestion that occurs on the Route 5/15 corridor and other roadways during the afternoon peak hour.
Response – The Department is currently investigating expanding the CTFastrak services east of the Connecticut River but there are no new stations planned as part of this project.

Question – The Town expressed concern with the several adjacent projects within the East Hartford area that share similar timelines for construction during the 2018 season and asked if the Department will coordinate the ongoing projects.
Response – The Department is aware of the adjacent projects and construction of these will be coordinated. Specifications will be included in the contract so that the contractor is made aware to coordinate with any adjacent projects.

Question – A resident asked what will be done to mitigate construction noise at night on Route 5/15 in East Hartford.
Response – Construction specifications limit noise activities during daytime hours. Noise due to construction over 90 dB must be mitigated.

Question – A resident inquired about the right-of-way process and when impacts will be better defined.
Response – The Department stated that property maps will be developed for affected properties; appraised value of the impacts will be determined; and discussions will be made with the involved parties.

The project was well-received and supported by those in attendance. The meeting ended at approximately 9:00 P.M.

Everyone Is Invited To A
PUBLIC INFORMATIONAL MEETING
State Project No. 63-703

Relocation of I-91 NB Interchange 29
and Widening of I-91 NB & Route 15 NB to I-84
Hartford and East Hartford

TO BE HELD
Tuesday, April 26, 2016
Hartford Public Works Department
Keith Chapman Conference Room (2nd Floor)
50 Jennings Road, Hartford

OR

Thursday, April 28, 2016
Raymond Library
840 Main Street, East Hartford

Open Forum for Individual Discussions with DOT Officials will begin at 6:30 p.m.
Formal Presentation at 7:00 p.m.

Residents, commuters, business owners, and other interested individuals are encouraged to take advantage of this opportunity to learn about and discuss the proposed project.

Written questions or comments should be directed to
Susan M. Libatique, P.E.
Transportation Principal Engineer
Connecticut Department of Transportation
P.O. Box 317546
Newington, Connecticut 06131-7546
or e-mail **susan.libatique@ct.gov**

Plans will be available at the
Hartford Public Works Department, Permitting Office
and the
East Hartford Town Hall, Engineering Department
two weeks prior to the meeting.

Meeting facilities are ADA accessible.
If language assistance is needed, please contact
the Department of Transportation's Office of
Communications (voice only) at (860) 594-3062
at least 5 business days prior to the meeting.
Efforts will be made to
respond to requests for assistance.

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

POLICE BRIEFS

CONNECTICUT

Man Faces Charges After Calling Police

BRANFORD – A 22-year-old Branford man is facing drug charges after police say he called to report a burglary, but officers smelled an "overwhelming" odor of marijuana when they arrived on Saturday.

Taylor Sapiente was charged with possession of narcotics with intent to sell, possession of marijuana, operating a drug factory and possession of drug paraphernalia.

Sapiente

Police said they smelled marijuana when they arrived at Sapiente's East Main Street apartment and obtained a search warrant.

Marijuana, hash oil, hallucinogenic mushrooms, a crystal substance believed to be methamphetamines, drug paraphernalia and $3,900 in cash were discovered after a search of Sapiente's apartment, police said.

—David Moran

Four Arrested After Car Chase

HAMDEN — After an officer was nearly hit by a driver in a stolen car, a chase ensued through Hamden Sunday night, police said.

Officer Andrew Lipford was sent to the McDonald's on Dixwell Avenue about 8:30 p.m. after police learned a stolen vehicle was in the drive-thru lane.

The driver of the stolen car, Eric Lumpkin, 19, drove the car at the officer and almost hit him, police said.

From there, police said, officers chased the vehicle on Lexington Avenue, Circular Avenue and Gilbert Avenue, before it crashed into a utility pole.

Yusef Dobbs, 18, of New Haven, was seated in the back seat and was arrested by Officer Sara Redding, police said.

Lumpkin, and Michael Baldwin, 18, both of New Haven, were arrested by Lipford and Officer Gabe Garcia after a short foot chase. Another person, Koree Charles, was taken into custody after Sgt. Jason Venditto and his police dog tracked him for some time, police said.

Baldwin was found with 27 bags of crack cocaine, police said. They also said a stolen .40-caliber handgun was found near the car.

The four men face a number of charges, including second-degree larceny.

—Nicholas Rondinone

BANKRUPTCY COURT

At Hearing, Judge Chides 50 Cent

Tells Him No More Social Media Posts From Courthouse

By DAVID OWENS
dowens@courant.com

HARTFORD — A bankruptcy court judge has chided hip-hop mogul and businessman 50 Cent for a social media post he made after a hearing that was prompted, in part, by his social media posts.

After a hearing March 9 in Hartford, 50 Cent posted a photo, taken in a conference room in the federal courthouse on Main Street, that showed him with bundles of cash stuffed into the waistband of his jeans while he ate M&Ms.

"I went to court today and all I felt was love," the rapper, whose real name is Curtis James Jackson III, wrote in the photo caption. "They asked me about money. I said I ain't got none, but if you want some M&Ms here ya go."

At the close of a routine hearing on Wednesday, U.S. Bankruptcy Judge Ann M. Nevins took note of the post, which has apparently been removed.

Jackson (50 Cent)

"I would like to make a brief comment about the use of social media," she said. "I want to be clear that when parties are in this courtroom or — they're in a conference room around the corner from this courtroom, that's not funny."

Nevins had previously banned all electronic devices in her courtroom when Jackson's case was on the docket. Even lawyers who work in the courthouse and other staff were forbidden from bringing phones into the courtroom.

The judge has worked to ensure that Jackson's bankruptcy proceedings are transparent. She also sought to reinforce for Jackson the importance of the proceeding.

"There's nothing funny going on here," the judge said. "This is very serious stuff. So, I just want to make that point."

The judge also praised Jackson for attending the hearing on Wednesday and for the work that has been done to move the case forward.

Nevins scheduled the March 9 hearing to hear what Jackson had to say about photos posted on social media, including one that showed him lying amid bundles of cash and another with the bundles arranged to spell "BROKE."

The largest of 50 Cent's creditors raised questions about the photos in a court filing and questioned whether the entertainer was reporting all of his income.

Another hearing in Jackson's bankruptcy is scheduled for May 18. He is not expected to attend that hearing.

Woman Critically Injured In Crash

LEDYARD — A driver was critically injured when she was thrown from a car during a weekend crash in Ledyard.

The crash happened about 9:40 p.m. Sunday near 961 Colonel Ledyard Highway, police said. Elizabeth Davis of the Oakdale section of Montville was driving north when the car crossed the center line into the lane for southbound traffic, Sgt. Eric Bushor said.

The car left the road, hit a stonewall and struck a tree, Bushor said, and the woman was ejected.

Davis was airlifted to Hartford Hospital, where she remained in critical condition Monday morning, he said.

—Christine Dempsey

Man Arrested After 6½ Hour Standoff

LEDYARD — A man who police say injured a woman and was involved in a weekend standoff that spanned more than six hours faces numerous charges.

Christopher Mims, 33, was in police custody Monday morning at Yale-New Haven Hospital, where he was being evaluated after the Saturday standoff. Police said he faces charges of first-degree unlawful restraint, second-degree assault, risk of injury to a minor and second-degree threatening. His bail was set at $750,000.

Police said the standoff stemmed from an outbreak of domestic violence.

According to Sgt. Eric Bushor, the mother of Mims' child was injured during the clash at 60 Stoney Brook Road, which began about 3 p.m. Saturday. She and the child were able to

PUBLIC NOTICES

LEGAL NOTICE
TOWN OF EAST HARTFORD
COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM
42nd YEAR
September 1, 2016 - August 31, 2017
ACTION PLAN

The Town of East Hartford has developed its ACTION PLAN for the use of 42nd Year (2016-2017) entitlement funding in the amount of $[illegible].

The following objectives will give maximum feasible priority to activities which benefit low and moderate income individuals and families and/or aid in the prevention or elimination of slums or blight. In order to obtain citizens' views on these objectives, in addition to this notice, public hearings were held on March 14, 2016 at 11:00 AM and 6:00 PM in the Town Hall [illegible] Conference Room. All comments and proposals received as a result of this process were considered in determining the following summarized version of the 42nd Year Action Plan:

ADMINISTRATION
Program Administration $[illegible]
Oversight, management, monitoring, and coordination of the Community Development Block Grant Program. Eligible activity under 24 CFR 570.206.

PUBLIC SERVICES
Senior Support Services $[illegible]
Funding for the delivery of services to East Hartford's elderly population. Eligible activity under 24 CFR 570.201(e), meets HUD national objective criteria under 24 CFR 570.208(a)(2)(i)(A).

Youth Services Bilingual Counselor $[illegible]
Funding to support the hiring of a part-time Spanish speaking counselor to help provide free counseling services to East Hartford families. Eligible activity under 24 CFR 570.201(e), meets HUD national objective criteria under 24 CFR 570.208(a)(2)(i)(B).

Housing Education Resource Center Inc. $[illegible]
Funding for the provision of fair housing services including town-wide education and counseling to tenants and landlords as well as foreclosure prevention. Eligible activity under 24 CFR 570.201(e), meets HUD national objective criteria under 24 CFR 570.208(a)(2)(i)(B).

CRT - East Hartford Community Shelter $[illegible]
Funding to supplement the operating budget of the East Hartford Community Shelter for the homeless located at [illegible] Main Street. Eligible activity under 24 CFR 570.201(e), meets HUD national objective criteria under 24 CFR 570.208(a)(2)(i)(A).

InterCommunity Inc. $[illegible]
Funding for the delivery of services to young adult East Hartford residents with behavioral health issues through the [illegible] Program. Eligible activity [illegible]

[illegible]

NOTICE TO CREDITORS

ESTATE OF [illegible] (16-[illegible])

The Hon. [illegible], Judge of the Court of Probate, District of [illegible], by decree dated April [illegible], 2016, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim.

[illegible], Assistant Clerk

The fiduciary is:
[illegible]

NOTICE TO CREDITORS

ESTATE OF [illegible] (16-[illegible])

The Hon. [illegible], Judge of the Court of Probate, District of Tobacco Valley Probate Court, by decree dated April [illegible], 2016, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim.

[illegible], Assistant Clerk

The fiduciary is:
[illegible]
c/o [illegible], Esq., [illegible] Main Street, Manchester, CT [illegible]

NOTICE TO CREDITORS

ESTATE OF [illegible] (16-[illegible])

The Hon. [illegible], Judge of the Court of Probate, District of [illegible] Probate Court, by decree dated April [illegible], 2016, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim.

[illegible], Assistant Clerk

The fiduciary is:
[illegible]

NOTICE TO CREDITORS

[illegible]

Continued from Page B4

reopened an unsolved 1975 homicide.

Police said Monday on their Facebook page that William Booker, 74, was found dead in his apartment on Jan. 6, 1975, with a bullet wound in his chest.

His son, Ernest Booker, found the body.

The bullet was recovered from Booker and sent for ballistic examination and comparison against possible firearms, but no match was made.

Police say several items in the apartment were processed for fingerprints, but no matches were made.

—Associated Press

Driving Lesson Goes Awry

MANCHESTER — A woman who was learning to drive backed into her husband Sunday, pinning him against a building, police said.

The accident happened on Tudor Lane early Sunday afternoon, police said. The man will survive, although at least one of his legs is broken.

According to Sgt. Stephen Bresciano, the man was behind the car, directing his wife as she attempted to back into a parking spot at the apartment complex, The Oaks Apartments.

For some reason, she didn't hit the brake hard enough to come to a stop before striking him and pinning him.

The incident was accidental and the woman is not expected to be arrested, Bresciano said. She had an adult learner's permit.

— Christine Dempsey

Teen Hurt In Bristol Crash

BRISTOL — A teen was seriously injured when the car he was riding in crashed into a concrete wall on Tower Road, police said.

The 17-year-old male was taken to a hospital in Waterbury with head and chest injuries. The driver, a 17-year-old female, had minor head and shoulder injuries, police said.

—Nicholas Rondinone

NEWINGTON

Facebook Posts Plagiarized

School Board Member Silvia Admits Failing To Cite Sources

By CHRISTOPHER HOFFMAN
Special to The Courant

NEWINGTON — A local parent has identified three Facebook posts on education policy that school board member Steven Silvia plagiarized and is calling on the board to discipline him.

"If a student does what he did, it's three days' suspension," said Michael Branda, who said he plans to ask the board to take action against Silvia at its meeting Wednesday. "If you tell a student you can't plagiarize, then I think the board of education should lead by example."

In an interview with the Courant, Silvia acknowledged plagiarizing the posts.

"I'm guilty of not citing the sources," Silvia said. "My intention was to throw ideas out and share what I was reading. I didn't cite where I got that [material]. I did a lot of cutting and pasting and throwing stuff out."

Silvia, a Republican elected to the school board last November, noted that Branda is a registered Democrat and suggested partisanship played a role in his actions.

"I think it's just part of politics," Silvia said.

But Branda strongly denied any partisan motivation. He said he has never been involved in Newington politics and knows no local Democratic officials.

> "I'm guilty of not citing the sources. My intention was to throw ideas out and share what I was reading. I didn't cite where I got that [material]. I did a lot of cutting and pasting and throwing stuff out"
>
> Steven Silvia

"I think what really alarmed me is this is an elected official," Branda said. "That to me is misleading voters, taxpayers, parents and even teachers."

Branda said he is interested in education policy because he has a child in the school system and a second one about to attend. His wife is a teacher, but not in Newington, he said. Since last fall, Branda said he has followed and commented on the detailed and often radical policy proposals Silvia regularly posts on the popular Newington Free Speech Facebook discussion group.

Silvia's posts have rankled school administrators and other school board members, who have publicly criticized him for the practice, saying it leads residents to believe his ideas are under active consideration. He has called for spending cuts and criticized how the district spends and allocates money.

Branda said he became suspicious after Silvia did not give a clear answer to his request for the source of his statement that masters degrees are of little use to teachers. He ran some of Silvia's policy pronouncements through a website that checks for plagiarism and found two posts had been lifted virtually word for word from policy papers and op-eds by Michael J. Petrilli, president of the Thomas B. Fordham Institute, a conservative education think tank. Petrilli advocates for the Common Core, charter schools and making education more cost efficient.

One of the posts in question described using online teachers for instruction and the other questioned the need for teacher's aides, instructional coaches and other support staff. Silvia put up both on April 2.

A third post dated Nov. 5, 2015, proposed ways to save money on textbooks and was copied all but verbatim from a website called Open Education Group.

School Board Chairwoman Nancy Petronio could not be reached for comment.

RESTAURANT FESTIVAL

Taste Of Manchester Tickets On Sale

By JESSE LEAVENWORTH
jleavenworth@courant.com

MANCHESTER — Tickets are on sale for the Taste of Manchester, a pub crawl-style event that features food and drink at restaurants.

Set for May 10, the event benefits Manchester Dog Owners Group Inc., which promotes responsible dog ownership and maintains the local dog park.

Tickets cost $25 for adults and $15 for children 12 and younger and are available at tasteofmanchesterct.com, or at the customer service center in town hall. The price includes visits to restaurants, free bus transportation and chances to win prizes.

From 5:30 to 9 p.m., ticket holders may sample dishes and drinks prepared by Brown Sugar Catering, 21 Oak, Cosmic Omelet, Hardcore Sweet Cupcakes, Hartford Road Cafe, Hartford Road Pizza, The Hungry Tiger, La Bamba, La Via del Gusto, Lena's Italian Kitchen, Los Sarapes, Lucky Taco and M&R Liquors. Also participating will be Main Pub, Mike's Pizzeria, Oxford Liquors, Smoke-Not Just BBQ, Steve's Bagels, Top Shelf Brewing and Wira Chicken.

Prizes are to be awarded at an after-party set for 9 to 10 p.m. at the Army & Navy Club on Main Street. Ticket holders who visit 21 Oak, La Bamba, La Via del Gusto and M&R Liquors will gain a chance to win a golden ticket prize, organizers said.

Organizers are seeking volunteers for the night of the event. Volunteers are eligible for reduced price tickets. Visit the event website and click on the volunteer tab.

Event sponsors include Eastern Connecticut Health Network, Langworthy Electrical Services, Dittman & Greer, Leaps & Bones, Milone & MacBroom, Patty Kilpatrick of ERA, Advanced Lighting and Sound Solutions, Julie's Barks & Bubbles and Little Theatre of Manchester.

POLICE BRIEFS
CONNECTICUT

Continued from Page B4

Car Involved In Fatal Hit-And-Run Found

GREENWICH — Police said Tuesday they have found the car involved in a fatal hit-and-run on Sunday and have tentatively identified the driver, but have not made an arrest.

The car was found in Greenwich. It is in police custody and will be analyzed, Lt. Kraig Gray said.

Also Tuesday, police identified Edward Setterberg, 43, of the Cos Cob section of Greenwich as the pedestrian killed on East Putnam Avenue, police said.

He was struck about 11 p.m. Sunday near Hillside Road, they said. At the time, police said the vehicle involved was a Mercedes with a damaged grill.

Even though police have tentatively identified the driver, the investigation remains open, Gray said.

No more information will be released before an arrest warrant is issued, he said.

— David Moran, Christine Dempsey

Ex-Hospital Official Accused Of Voyeurism

BRIDGEPORT — A former hospital official is accused of forcibly administering enemas to at least four men and secretly photographing dozens more.

The Connecticut Post reported that Barry Barkinsky, 62, of Stamford, was arraigned Tuesday on four counts of fourth-degree sexual assault and 10 counts of voyeurism.

A man reported to police in December that Barkinsky had sexually assaulted and photographed him while he was enrolled in the EMT course at the Bridgeport Hospital nursing school in 2013. Barkinsky was his instructor and the hospital's emergency manager.

Police say Barkinsky turned over 2,181 photographs he had secretly taken of at least a dozen nude men while he was performing a medical procedure on them.

Hospital officials say they fired Barkinsky after learning about the investigation.

Barkinsky's attorney declined to comment outside court.

— Associated Press

ENFIELD

Man Accused Of Kidnapping Daughter

Police Say Girl's Mother Assaulted

By MIHAELA PORTER
mporter@courant.com

ENFIELD — An Enfield man who allegedly broke into his ex-girlfriend's home on Thompson Court, choked and pushed her and then took their young daughter has been arrested, police Chief Carl Sferrazza said Tuesday.

John Moran, 27, of 20 Debra St., was charged with risk of injury to a child, second-degree reckless endangerment, third-degree assault, second-degree breach of peace, second-degree kidnapping, home invasion, second-degree threatening and interfering with an officer/resisting arrest, Sferrazza said.

Moran was initially held on $175,000 bail but a Superior Court judge reduced bail to $25,000.

The ex-girlfriend called police about 9:45 p.m. Monday to say Moran had just broken into her home and taken their 2-year-old daughter, Sferrazza said. She told police that she was arguing with Moran via text "for a few hours," according to a police report.

The woman told police that Moran unlocked both the porch door and the door into her house and walked inside, according to the police report.


Moran

When the woman tried to grab her cellphone to call police, Moran grabbed her by the neck and pushed her to the ground, police said the woman told them. She tried to get up but Moran grabbed her by the throat again, this time slamming her into a door, she told police.

Moran then grabbed the crying 2-year-old and left the house, she told police. A witness confirmed the woman's story, Sferrazza said.

When police arrived at 20 Debra St., the woman told them where she believed Moran lived. Moran was at the home and answered the door, but he refused to go outside and then closed and locked the door, Sferrazza said. Officers could hear the young girl screaming inside and police forced their way in, Sferrazza said.

Moran was arrested, Sferrazza said, adding that the girl did not appear to have any injuries and that the woman did not require hospitalization.

According to the police report, the Department of Children and Families was notified. The daughter was left in the care of her mother.

Passersby Help Driver After Fiery Crash

WALLINGFORD — Passing motorists stopped to help a driver escape his tractor trailer after a fiery crash on I-91 Tuesday morning that tied up traffic for hours, state police said.

The crash happened about 4:30 a.m. at Exit 15 in the northbound lanes when Dominique Jenkins, 26, lost control of the truck, they said. The rig struck a wire guardrail and an exit sign, which ripped the trailer apart, spilling cargo.

The truck overturned and caught fire, police said. Passing motorists stopped to help Jenkins get out.

He was treated at Yale-New Haven Hospital for injuries that troopers said were minor.

Jenkins was given a ticket for failure to maintain an established lane, state police said.

For hours, traffic was reduced to one lane.

— Christine Dempsey

Man Naked On Beach Near Playground

WEST HAVEN — An Ansonia man was arrested Monday after police received reports that he was naked on a beach next to a playground.

David Gerrish, 49, of Clifton Street, was charged with public indecency and breach of peace, they said.


Gerrish

Police said they received calls about 4:30 p.m. from residents who complained that there was a naked man on Sea Bluff beach, next to a playground dedicated to a victim of the Sandy Hook massacre.

Officers found Gerrish in his vehicle in the parking lot that faces the playground, police said. He mentioned that he might have been naked for a short period of time, police said.

The playground is dedicated to Charlotte Bacon, a 6-year-old killed in December 2012 at Newtown's Sandy Hook Elementary School.

— Christine Dempsey

Man Arrested In Willimantic Stabbing

WILLIMANTIC — A Willimantic man who police said stabbed someone in the neck during a parking dispute was arrested Monday, police said.

Frederick Devon Savage, 31, of Jackson Street, was charged with first-degree assault. He was in custody on $100,000 bail early Tuesday and was scheduled to appear at Superior Court in Danielson later in the day.

He was arrested at Superior Court in Manchester, where he was appearing on unrelated charges, Lt. Alex Coriary said.

According to police, the stabbing happened on Jan. 26 on Jackson Street. Savage argued with his roommate's friend over the parking spot the friend had picked.

— Christine Dempsey

ABRIL

Jueves 21, 1:30pm-3:00pm
RALLY FOR AFFORD TO DREAM / SB147 EN HARTFORD. Apoyar y pedir a la Asamblea General de la CT para pasar SB 147. Lugar: marcha iniciará en Bushnell Park y la termina en State Capitol North Steps, 210 Capitol Ave, Hartford, CT. Mas informes al 203-482-7340, o escribiendo a: camila@ct4adream.org

Jueves 21, 5:30pm
TALLER DE PRESERVACIÓN DE ALIMENTOS EN HARTFORD. Diversos temas de conservación de los alimentos, entre ellos el enlatado, congelación, fermentación y secado. Recibirá los productos frescos, frascos para conservas y recursos de instrucción para llevar a casa. Lugar: Biblioteca Pública, 1250 Albany Ave, Hartford, CT. Más Info: (860) 695-6322.

Jueves 21, 5:00pm
MARIACHI EMPERADORES DE PUEBLA EN WALLINGFORD. Disfrute de buena música mientras cena. Lugar: Plaza Azteca, 1088 Colony Rd. Wallingford. Reservaciones al 203-626-9671

Viernes 22, 3:45pm-5:00pm
DIA DEL JUEGO: ARTE Y ENTRETENIMIENTO EN HARTFORD. Todas las edades. Únase para todo tipo de juego: juegos de video en la pantalla grande, hockey de aire, futbolin y juegos de mesa. Lugar: Goodwin Branch, 460 New Britain Ave. Hartford, CT. Más Info: (860) 695-7481.

Viernes 22, 7pm-11pm
MUSICA EN VIVO Y KARAOKE EN NEW BRITAIN. Todos los viernes en Sociedad Puertorriqueña. Esta vez con Pedrito Alvares y el Trio Los Liberales. Lugar: Puerto Rican Society 152 High St. New Britain.

Viernes 22, 9pm
GRUPO NYCE MERENGUE Y BACHATA EN WEST HAVEN. Lugar: Boku, 481 Campbell Ave. West Haven. Reservaciones al 203-645-4513.

Viernes 22, 6:30pm-9:30pm
TROMBEATZ CON HOMMY RAMOS Y NELSON BELLO EN HARTFORD. Happy Hours. No cover. Lugar: Casona, 681 Wethersfield Ave. Hartford.

Sábado 23, 9:00am-3:00pm
CONFERENCIA ANUAL: SALUD DE LA MUJUR EN MIDDLETOWN. Aumentar la conciencia de los muchos problemas de salud que afectan a las mujeres. Cabinas de demonstración. Orador Principal: Ernestine Shepard. Entrada $22.50. Lugar: Cross Street Zumba Fitness, 440 West St. Middletown, CT. Más información: http://www.eventbrite.com

Sábado 23, 9:00am-4:30pm
CODE CONNECTICUT: APRENDER A PROGRAMAR "MEDIA" (MEDIOS DE COMUNICACION) EN HARTFORD. Cada taller tendrá su propio ordenador portátil. Se ofrecerá desayuno y almuerzo. Entrada - $20 Adultos, $10 Estudiantes. Lugar: Reset Social Enterprise Trust, 1429 Park St. #114, Hartford, CT. Más Informacion: http://www.eventbrite.com

Sábado 23, 9:00pm
LOS ORIGINALES DE LA CUMBIA EN HARTFORD. Piolin Bar & Restaurant, 395 Franklin Ave. Hartford. Cover $10

Sábado 23, 10:00am
ART LEAGUE EN WEST HARTFORD. Club de Arte para niños mayores de 6 años. Más Información visite la página: http://westhartford.org/call-for-artists.

Sábado 23, 9pm
LOS ORIGINALES DE LA CUMBIA EN HARTFORD. Lugar: Piolin Bar & Restaurant, 395 Franklin Ave. Hartford. Entrada $10.

Sábado 23, 11pm
ORQUESTA BROADWAY EN NYACK, NY. Clases de salsa a las 8pm y bandas de salsa en vivo todos los Sábados. Best Western Nyack en Hudson 29 Route 59 Nyack, NY. Salida 11. Entrada gratis con estadia en un Hotel la noche del Sábado. Para mas Información llame al (845) 358-8100.

Domingo 24, 11:30am-2:30pm
EDUARDO ROCHAS DUO EN NEW HAVEN. Barracuda Bistro, 1180 Chapel St. New Haven. Para más información llamar al 203-691-5696.

Domingo 24, 5pm-8pm
MARIACHI LOS TROVADORES DE AMERICA EN NEWINGTON. Lugar: Puerto Vallarta, 2385 Berlin Tnpk. Newington. Reservaciones al 860-667-8080.

Martes 26, 5:30pm
CESAR VALLEJO Y LA POESÍA UNIVERSAL. Lugar: Biblioteca Pública, 500 Main St, Hartford, CT. Más Info: (860) 695-6300.

Viernes 29, 8:30 am-2:00pm
2da CONFERENCIA DE ESTUDIOS LATINOAMERICANOS Y DEL CARIBE EN WILLIMANTIC. Lugar: Student Center Theater de Eastern Connecticur State University. Para más información contactar a Ricardo Pérez a: perezr@easternct.edu

Viernes 29, 7pm
SALSA CON SON SIETE EN BRIDGEPORT. Edwin Rivera y Eddie Rivera. Lugar: Bijou Theatre, 275 Fairfield Ave, Bridgeport. Reservaciones (203) 332-3228. Entradas: $15 por silla en el teatro y $18 por silla con mesa.

Sábado 30, 9:00am-5:00pm
MERCADO DE LAS PULGAS EN SIMSBURY. Un divertido dia de compras, comida y música en vivo. Festival de camión de alimentos de los mejores en CT y MA. Entrada solo $3 y gratis para los niños. Lugar: Simsbury Meadows Performing Arts Center, 22 Iron Horse Blvd. Simsbury, CT. Más Info: (860) 989-7045, http://www.simsburyflea.com

Sábado 30, 10:15am
TALLER DE ESCRIBIR POESÍA. Lugar: Biblioteca Pública, 500 Main St, Hartford, CT. Más Info: (860) 695-6300.

Sábado 30, 6:00pm
JOSE PAULO, EL CANTANTE BRASILEÑO EN HARTFORD. Celebración Lanzamiento de su nuevo CD. Lugar: Portuguese Club, 730 N. Mountain Rd, Newington, CT 06111. Más Información: (860) 268-6292.

MAYO

Jueves 5, 12:00pm-4:00pm
EVENTO DE MODA EN STAMFORD. Celebrando el Dia de la Madre. Donación $10. Lugar: Sheraton Stamford Hotel, 700 East Main St. Stamford, CT. Más Información: www.damashispanascf.com o llamando al (203) 219-1923.

Viernes 6, 9:30am-12:00am
MEJORAR SUS PERSPECTIVAS DE CONTRATACION DEL GOBIERNO. La forma de gestionar las tres fases del evento, incluyendo la preparación, reuniones cara a cara y seguimiento. También crear una poderosa declaración de la capacidad de una página que le distinguen de la competencia. Lugar: University of Hartford, 200 Bloomfield Ave. West Hartford, CT. Más Info: http://commerce.cashnet.com/ectr

Sábado 7, 12:00pm-4:00pm
DIVERSION FESTIVAL DE LA FAMILIA EN NEW HAVEN. Celebra todo lo que New Haven tiene para ofrecer. Incluye juegos, comida y actividades. Entrada gratis. Lugar: Neighborhood Housing Service, 333 Sherman Ave. New Haven, CT. Más Info: (203) 562-0598.

Sábado 7, 12:00pm-5:00pm
RIVERFRONT FESTIVAL DE ENCUENTRO. Aprender acerca de la cultura, historia y ciencia del Rio Connecticut. Lugar: Harbor Park, 80 Harbor Dr. Middletown, CT. Más Info: (860) 685-3355.

Sábado 7, 11am-6pm
10TH ANNUAL SAMBA FEST EN HARTFORD. Producido por Trinity College en conjunto con Riverfront Recapture, sera una caravana de música que incluirá a los grupos artisticos de Ginga Brasileira, Sambeleza, Sambusa Band, Grupo Ghettos, Conjunto Antillano presentando a Ray Gonzalez, Hartford Steel Symphony, Hartford Hot Several Brass Band, Trinity Samba Ensemble, y Trinity Steel. Lugar: Mortensen Riverfront Plaza, 300 Columbus Boulevard. Entrada Gratis free.

Martes 10,
CAMPEON DE CONNECTICUT DE LOS NIÑOS EN HARTFORD. El Centro para la Defensa de los Niños presentará con orgullo los premios de este año. Lugar: Infinity Hall, 32 Front St, Hartford, CT. Más info e-mail: ewilson@kidscounsel.org

Sábado 14, 9:00am-4:00pm
CONSULADO MOVIL DE GUATEMALA EN HARTFORD. Se brindará diferentes servicios como emisión de pasaporte, emisión de identificación consular y más. Municipalidad de Hartford, 550 Main St. Hartford, CT 06103. Para más información llamar al 212-686-3837.

Domingo 15, 9:00am-12:00pm
ROCK THE GAUNTLET EN NEW HAVEN. Carrera 5K con 20 diferentes obstáculos. Lugar: East Rock Park, 41 Cold Spring St. New Haven, CT. Más Info: (203) 458-1639, http://www.gauntletraces.com

Lunes 16, 9:30am-11:30am
LOS FUNDAMENTOS DE LOS MEDIOS SOCIALES. Taller gratuito. Utilizando los medios sociales para llegar a sus clientes, miembros y las perspectivas. University of Hartford, 200 Bloomfield Ave. West Hartford, CT. Más Info: http://commerce.cashnet.com/ectr

Martes 17, 7:00pm
RECITAL POETICO EN HARTFORD. Las poetas Bessy Reyna y Martha Collins presentarán un recital. Lugar: salón cultural WordForge al lado del restaurante FireBox en Broad St. Hartford. Abierto al público.

Miércoles 18, 5:30pm
CLASE DE ABONOS ORGANICOS EN HPL DE HARTFORD. Los temas incluyen las mejores prácticas para el compostaje al aire libre. Lugar: Hartford Public Library de Hartford, en el aula de la Planta Baja. Llamar al 860.695.6322 para registrarse.

Sábado 21, 12:00pm-4:00pm
POWER HEALTH: SALUD, BIENESTAR, Y EMPODERAMIENTO EN HARTFORD. Evento gratis para la comunidad. Cada persona tiene la oportunidad para recibir más de $1000 dólares de atención médica gratuita. Entretenimiento en vivo, bolsas de regalo, demostración de aptitudes y diversión para toda la familia. Lugar: The Boys and Girls Club, 170 Sigourney St. Hartford, CT. Más informacion: www.Powerhealthtour.com

Lunes 23, 9:30am-11:30am
BLOGGING PARA PRINCIPIANTES EN WEST HARTFORD. Taller gratuito. Aprender sobre los tipos de blogs, los fundamentos de comenzar un blog y por qué se deben considerar los blogs para su negocio. University of Hartford, 200 Bloomfield Ave. West Hartford, CT. Más Info: http://commerce.cashnet.com/ectr

Esta Invitado a una

JUNTA PUBLICA INFORMATIVA

Proyecto del Estado No. 63-703

Reubicación de I-91 NB Intersección 29
y expansión de I-91 NB y la Ruta 15 NB hacia I-84
Hartford & East Hartford

SE LLEVARA A CABO EL

Martes, 26 de Abril del 2016
en el Departamento de Obras Publicas de Hartford (DOT)
Salón de Conferencias Keith Chapman (2nd Piso)
50 Jennings Road, Hartford

Y

Jueves 28 de Abril del 2016
Biblioteca Raymond
840 Main Street, East Hartford

Foro Abierto para Discusiones Individuales con los oficiales de DOT empezaran a las 6:30 p.m.
Presentación formal comienza a las 7:00 p.m.

Residentes, viajeros, dueños de negocios, y otras personas interesadas se les recomienda tomar ventaja de esta oportunidad para aprender acerca de y discutir el proyecto propuesto.

Cualquier pregunta por escrito o comentarios deberán ser dirigidos a
Susan M. Libatique, P.E.
Ingeniera Principal de Transportación (Transportation Principal Engineer)
Connecticut Department of Transportation
P.O. Box 317546
Newington, Connecticut 06131-7546
o por e-mail susan.libatique@ct.gov

Los planes estarán disponibles en
el Departamento de Hartford de Obras Publicas, Oficina de Permisos
y el Ayuntamiento de East Hartford, Departamento de Ingeniería
dos semanas antes de la junta.

Las instalaciones para la reunión son accesibles para personas con discapacidades (ADA) Si se requiere asistencia de lenguaje, por favor contacte a la Oficina de Comunicaciones del Departamento de Transportación (hablando) al (860) 594-3062 por lo menos 5 días de negocio hábiles antes de la reunión. Se harán esfuerzos para responder a las solicitudes hechas para asistencia.

ESTADO DE CONNECTICUT

¿Cuánto Sabes, Cuánto Vales?

RESPUESTAS VALIDAS:
1-a; 2-c; 3-b; 4-a; 5-c; 6-b; 7-c; 8-c; 9-a; 10-b;

Airport authority keeps num on casino negotiations

Harlan Levy
nal Inquirer

WINDSOR LOCKS — The nnecticut Airport Authority on nday once again refused to dis- ie information about ongoing otiations for a casino at Bradley rnational Airport, claiming the uments and discussions are mpt from the state's Freedom of rmation Act.

he authority went into its fifth cutive session to talk about the ential casino development, cifically designating the session e as "negotiating strategy."

fter the session, Vice Chairman hael Long, who was presiding Monday, said, "We took no on. We didn't have any votes. are just going to continue nego- ons."

ong also refused to reveal any ils about the authority's proposal. asino competitor MGM, which a project underway in ingfield, has requested docu- its pertaining to the airport's ino plan under freedom-of- rmation laws. The authority cted the request, saying the rmation is protected because otiations are ongoing with the e's two tribes.

he Mashantucket Pequots and Mohegans, each the owner of a no in Ledyard and Montville pectively, asked for proposals year to jointly build a third casi- north of Hartford to compete MGM in Springfield.

Secret meetings held behind ed doors usually lead to bad comes," MGM spokesman nard Kavaler said Monday. ying to develop the rules and ulations for Connecticut's first mercial casino requires full lic participation, as anything smacks of back-room dealings which the public's interests will gnored."

asinos are a "significant public e that require, as a matter of policy and law, a full and open discussion," Kavaler added. "Continued secrecy is unacceptable for residents of Windsor Locks, the region, and the state."

> The authority went into its fifth executive session to talk about the potential casino development, specifically designating the session topic as "negotiating strategy."

MGM's law firm, Carmody, Torrance, Sandak, & Hennessey, filed its complaint with the FOI Commission in February. A commission hearing officer heard arguments Thursday in Hartford.

Authority Executive Director Kevin Dillon told the authority on Monday that he testified at the hearing and reasserted the authority's argument.

"Again, we feel that we have a great position," Dillon told the board. "This is a business negotiation. We responded to an RFP (request for proposals). We do represent the public interest in that regard, and the public interest should not take a back seat to the other developer's interest in regard to a future development of a casino. ... Once the business negotiations are completed, we fully intend to release all of the documentation associated with the RFP development as well as any communications that are germane to that development."

The airport authority submitted one of two proposals to bring a casino to Windsor Locks, offering Bradley International Airport as a site.

Sportech Venues proposed building a casino at the Winners parimutuel location. The tribes also received proposals for sites in East Hartford, East Windsor, and Hartford.

Since MMCT, the entity formed by the two tribes in seeking a third casino, stopped accepting proposals in November, the airport authority has gone into executive session during its regular meetings to discuss its casino proposal.

Airport authority General Counsel Patrick Pemerewski sent a letter to MGM's lawyers in January stating the authority won't comply with the records request, which listed 27 categories of documents, many of them pertaining to anything related to legislation that the General Assembly approved last year inviting the tribes to submit a proposal for possible gaming expansion.

The firm also requested any communications with the Mashantucket Pequot and Mohegan tribes or any entity acting on their behalf, including any comments on the issue of gaming expansion.

Additionally, the request included any communications about MGM's Springfield casino, and anything discussing whether MGM should be excluded from Connecticut's gaming expansion process.

Everyone Is Invited To A

Public Informational Meeting

State Project No. 63-703

Relocation of I-91 NB Interchange 29
and Widening of I-91 NB & Route 15 NB to I-84
Hartford and East Hartford

To Be Held

Tuesday, April 26, 2016
Hartford Public Works Department
Keith Chapman Conference Room (2nd Floor)
50 Jennings Road, Hartford

AND

Thursday, April 28, 2016
Raymond Library
840 Main Street, East Hartford

Open Forum for Individual Discussions with DOT Officials will begin at 6:30 p.m.
Formal Presentation at 7:00 p.m.

Residents, commuters, business owners, and other interested individuals are encouraged to take advantage of this opportunity to learn about and discuss the proposed project.

Written questions or comments should be directed to
Susan M. Libatique, P.E.
Transportation Principal Engineer
Connecticut Department of Transportation
P.O. Box 317546
Newington, Connecticut 06131-7546
or e-mail susan.llbalique@ct.gov

Plans will be available at the Hartford Public Works Department, Permitting Office and the East Hartford Town Hall, Engineering Department two weeks prior to the meeting.

Meeting facilities are ADA accessible. If language assistance is needed, please contact the Department of Transportation's Office of Communications (voice only) at (860) 594-3062 at least 5 business days prior to the meeting. Efforts will be made to respond to requests for assistance.

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ıergency person-
l carry a woman
ım a rescue boat
people are evac-
ed Monday from
apartment com-
lex in Houston.

Associated Press

ouston faces more flooding

VEATHER

NTINUED FROM PAGE 8

rt period of time, there's nothing can do," he added.

lash flooding and more rain are sible today, a day after some ıs saw water levels approaching inches. Scores of subdivisions ıded, schools were closed, and ver was knocked out to thou-ds of residents who were urged helter in place.

ı addition to its location, ıston's "gumbo" soft soil, fast-wing population and building m that has turned empty pas-s into housing developments all r the city's suburbs and exurbs te it vulnerable to high waters, erts say.

larris County, where Houston many of its suburbs are located, seen a 30 percent jump in pop-ion since 2000. Its surrounding nties have almost grown more ı 10 percent since 2000, accord-to the Greater Houston nership, a business group.

ome of the resulting develop-ıts include adequate greenspace water runoff, but not all of them said Philip Bedient, an engi-ring professor at Rice versity.

Could we have engineered our out of this?" Bedient said. ıly if we started talking about rations 35 or 40 years ago."

amuel Brody, director of the ironmental Planning & tainability Research Unit at as A&M University, last year ed Houston "the No. 1 city in erica to be injured and die in a ıd."

ainstorms last year over morial Day weekend caused or flooding that required ıorities to rescue 20 people, ıt of them drivers, from high er. Drivers abandoned at least)0 vehicles, and more than)0 homes were damaged in the

The year before, flash flooding in Houston and suburban counties left cars trapped on major highways.

Those storms still pale in comparison to the devastation wreaked by Hurricane Ike in 2008 and Tropical Storm Allison in 2001. Allison left behind $5 billion in damages and flooded parts of downtown and the Texas Medical Center, which sits near the Brays Bayou, a key watershed.

Japan suffers aftershocks as people live in fea

By Mari Yamaguchi
Associated Press

MINAMIASO, Japan — Japan's southern quake-hit area was rattled by a strong aftershock today and searchers found a woman's body buried under landslide rubble, raising the death toll from the twin earthquakes to 45.

More than 100,000 evacuees, some sleeping in their cars and others in gymnasiums or community centers, were bracing for another chilly night. Many people are afraid to stay in their homes as aftershocks continued to shake the area on the southern island of Kyushu, including a 5.5-magnitude temblor today.

Authorities were advising people staying in cars and shelters to move about to avoid developing deep-vein thrombosis, or blood clots that develop after being immobile for a long time. Japanese media reported that a 51-year-old woman from Kumamoto had died Monday from the condition.

At least 23 people have developed symptoms, Kyodo News service said. Saiseikai Kumamoto Hospital said today it had diagnosed 10 cases, including two people in critical condition.

The area around Kumamoto was hit by two quakes within 28 hours of each other late Thursday and early Saturday, triggering landslides that have blocked roads. The Fire and Disaster Management Agency said nearly 1,200 houses had been destroyed.

Nine people died in the first, magnitude 6.4 earthquake, and at least 36 died in the second which registered 7.3. About have been injured.

The hardest-hit towns Mashiki, where 20 residents and Minamiaso, a remote mou area where 11 died and the toll is creeping up as soldier emergency workers use bac and shovels to search for m people.

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STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Connecticut emerges as battleground for presidential primarie

Neil Vigdor
Newington Time

Connecticut is suddenly New Hampshire lite.

A week before Democratic and Republican primary voters cast their ballots for president here, the third-smallest state in the nation is having a cavalcade of White House contenders and prominent surrogates to its cities and towns.

Written off by most pundits as irrelevant early on in both parties' nominating contests, Connecticut has emerged as an unlikely battleground because of the inability of frontrunners Hillary Clinton and Donald Trump to deliver a knockout one, but all three Clintons — Hillary, Bill, and Chelsea — are scheduled to visit here before April 26.

"Winning Connecticut would be a nice way for the Clinton campaign to try to deprive some oxygen from (Bernie) Sanders," says Kyle Kondik, managing editor of Larry Sabato's Crystal Ball at the University of Virginia Center for Politics.

Not to be outdone, Trump is expected to squeeze in a second and possibly a third visit to the state after making his Connecticut debut Friday night in Hartford.

John Kasich is also headed back here. The Ohio governor, who is running a distant third to Trump and Texas Sen. Ted Cruz in the Republican nominating race, will hold a town hall Friday in Glastonbury after attending a similar event two weeks ago at Sacred Heart University in Fairfield. The week before that, Kasich was fundraising in Greenwich.

Connecticut's primary falls one week after Democrats and Republicans in New York cast their ballots for president, which experts say could be a preview of how the voting will go in the Constitution State.

"In a Democratic race, if it's a close New York primary, it's going to be treated like it's crucial," said Jerold Duquette, an associate professor of political science at Central Connecticut State University in New Britain.

Trump and Clinton won their respective New York primaries on Tuesday handily.

Former first daughter Chelsea Clinton was to stump for her mother today in Hartford, where she was expected to try to draw a contrast between her mother's record on gun control and Sanders' record. The Clinton campaign has assailed the Vermont senator on his support for a 2005 law shielding gun companies from wrongful death lawsuits such as one filed by the families of the Newtown victims.

Both Hillary and Bill Clinton are scheduled to visit the state Thursday, with the former president headlining a private fundraiser in Westport and the former secr of state focusing on the gun iss a separate appearance. Sh scheduled to appear at the YI in Hartford. Doors open at 10

In Connecticut, where Clintons met as Yale Law stuc 71 Democratic delegates are u grabs. They are awarded on a portional basis. So far, Sande not scheduled a Connecticut which political experts say is in the works.

Voter registration surges ahead of Tuesday's primar

By Susan Haigh
Associated Press

With Connecticut's presidential primary fast approaching, residents across all age brackets are registering to vote in record numbers.

Secretary of State Denise N said 76,685 people register vote between Jan. 1 and April

The largest block of new v 36,607, have signed up wit Democratic Party. They're foll by 23,182 new unaffiliated and 16,896 new Republican v Only registered Democrats Republicans can vote in Tue primary.

"I think that people knov there's a contest and they wan part of it," Merrill said. "Let's f For many years, Connecticut exactly been a battleground And suddenly, we're relevant."

In 2008, the last time Conne experienced record voter re tions, more than 34,000 p signed up to vote over a 9 period that preceded that presidential primary, which held Feb. 5 or Super Tuesday.

The surge of new vote Connecticut could help the dates differently. A Quin University poll released shows that Bernie Sander example, leads Hillary Clint percent to 26 percent among who are 18 to 34 years Information from the secret the state's office shows 29,2 new voters who signed up be Jan. 1 and April 13 are betwe ages of 18 and 29, while 5,2 under the age of 18. Conn allows teens to register to early.

Merrill said the youth vote is not surprising, however, c ering that's traditionally whe ple first sign up to vote.

Although, it appears peopl ages are signing up to vote by the state's new online voter re tion system, which Merrill credits for the surge in registr More than 50 percent of thos are registering to vote this ye the system, which began 1½ ago. She said one voter ev seconds or less has been sign online in recent days.

ATTACHMENTS

Conceptual Access Modification Report Approval

U.S. Department of Transportation
Federal Highway Administration

Connecticut Division

628-2 Hebron Avenue
Suite 303
Glastonbury, CT 06033
860-659-6703
860-659-6724
Connecticut.FHWA@dot.gov

May 2, 2016

In Reply Refer To:
HEO-CT

Mr. Timothy M. Wilson, P.E.
Manager of Highway Design
Connecticut Department of Transportation
2800 Berlin Turnpike
PO Box 317546
Newington, Connecticut 06131-7546

Subject: Interstate Conceptual Access Modification Report Approval
State Project No. 0063-0703, City of Hartford/Town of East Hartford

Dear Mr. Wilson:

The Federal Highway Administration (FHWA) Connecticut Division Office and the FHWA Headquarters Office in Washington, DC have completed the review of CTDOT's November 9, 2015 request for Interstate Conceptual Access Modification approval for the relocation of the I-91 northbound interchange 29 to Route 5/15 northbound in Hartford, Connecticut to I-84 eastbound in East Hartford, Connecticut. This project also involves the widening of I-91 northbound and Route 5/15 northbound.

To support the Department's request and in response to FHWA's review comments, CTDOT provided us the following documentation for review:

1. Conceptual Access Modification Report, including Appendices and Plan, dated November 4, 2015
2. Justification for Major Fork Request for Interstate Access Modification Concept Approval, dated January 15, 2016
3. Construction Cost Estimate Breakdown for Alternates 4, 6C, 6D and 8A, dated January 25, 2016
4. CTDOT Response to FHWA Comments on Conceptual Access Modification Report, dated March 30, 2016
5. CTDOT Response to FHWA Signing and Pavement Marking Plan Comments, dated April 12, 2016

FHWA has determined that this proposed interchange modification will improve the safety and operations of northbound I-91 in Hartford where it provides access to East Hartford and I-84 to the east. Based on FHWA's review, the CTDOT's proposed modification of the I-91 northbound interchange 29 to Route 5/15 northbound is acceptable based on engineering and operational

considerations. We understand that CTDOT is currently in the process of preparing an Environmental Assessment (EA) on this project. Once a decision has been made on the EA and the National Environmental Policy Act (NEPA) process has been completed, FHWA may give final approval of this access modification provided that the scope and design of this project remains consistent with the November 4, 2015 Interstate Conceptual Access Modification Report and the NEPA decision. This approval is subject to reevaluation if significant changes occur in the final design or if the construction is delayed (as specified in 23 CFR 771.129). It should be noted that approval of an access modification request does not constitute approval of the design exceptions associated with this project.

If you should have any questions regarding this letter, please contact me at 860-494-7559 or at David.W.Nardone@dot.gov.

Sincerely yours,

David W. Nardone

David Nardone
Engineering Team Leader

Cc: Susan Libatique, CT DOT
Sebastian Cannamela, CT DOT

ATTACHMENTS

Design Exception Report

DESIGN EXCEPTION REPORT

State Project No. 63-703
Relocation of I-91 NB Interchange 29 and
Widening of I-91 NB and State Route 5/15 NB to I-84 EB
Hartford and East Hartford, Connecticut

Submitted to: Connecticut Department of Transportation

Date: April 18, 2016

Revised: May 18, 2016

CONSULTANTS

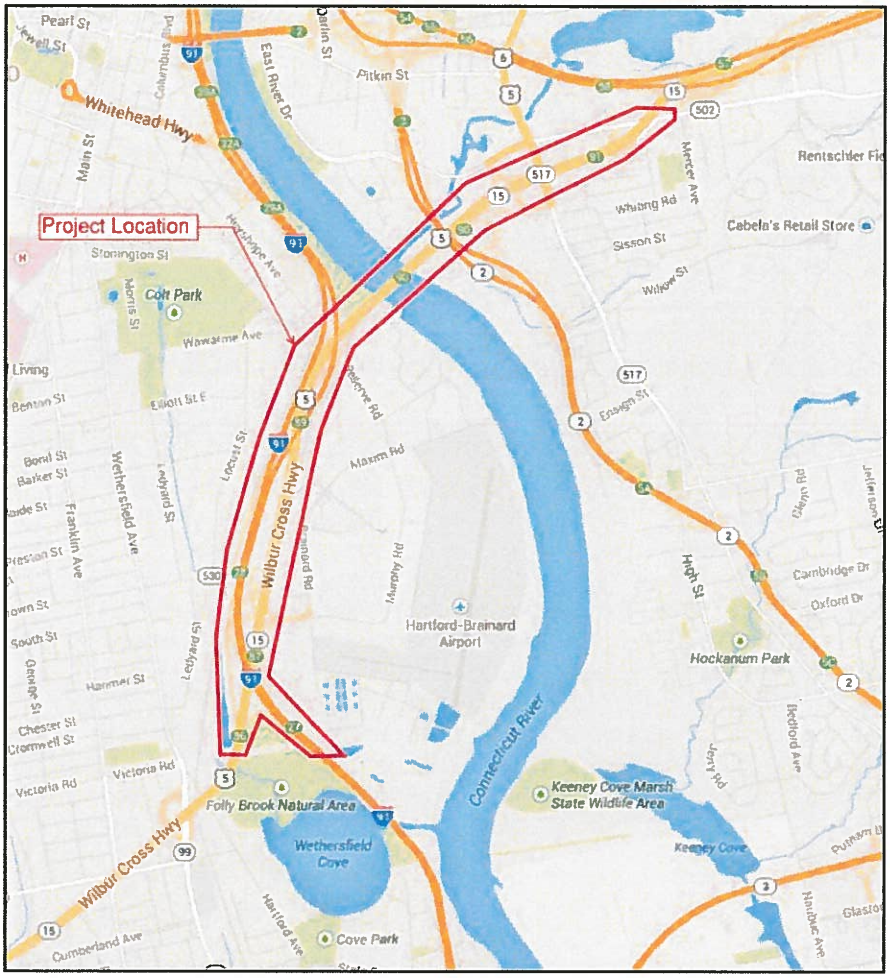
Prime Consultant: CME Associates, Inc.
Sub-consultants: H.W. Lochner, Inc.
VN Engineering, Inc.
Freeman Companies

Table of Contents

1.0 PROJECT INFORMATION

1.1 LOCATION

This project begins on Interstate 91 (I-91) Northbound (NB) in the vicinity of Wethersfield Cove, extending northerly to Route 15 NB and ends approximately 625 feet north of Silver Lane before the Interstate 84 (I-84) Eastbound (EB) merge.



1.2 PURPOSE AND NEED

The purpose of the project is to address safety concerns associated with congestion and operational failures at Interchange 29 on I-91 Northbound.

1.3 DESCRIPTION

The I-91 NB Interchange 29 off-ramp is a single-lane configuration with a steep vertical grade that contributes to significant traffic delays due to the heavy volume of vehicles. In addition to the geometric deficiencies of the off-ramp, there is a heavy weave condition occurring on the Charter Oak Bridge at the end of the ramp where motorists attempt to access I-84 EB, Route 5/15 NB, Route 2, and Silver Lane. The existing traffic queues extend onto the I-91 NB mainline, taking up the right lane of the three-lane facility. The length of the queue varies, but has been observed to extend approximately 1.4 miles in the vicinity of Wethersfield Cove. The safety issues are compounded by drivers that routinely cut into the right-lane queue from the center lane, which further increases congestion on I-91 in this area.

The current design includes the widening of I-91 NB for approximately 4,300 feet to provide four lanes from Interchange 27 to 29. The widening is anticipated to relieve congestion and address safety concerns due to motorists entering the queue from the center lane of I-91 NB. The widening will require modifications to Bridge No. 00813 (I-91 over Route 15), Bridge No. 03613 (I-91 over a drainage crossing), Bridge No. 01466 (I-91 over the SB entrance ramp to I-91 SB and Route 15 SB), and Bridge No. 00480 (I-91 over Airport Road).

The geometric and congestion issues associated with the Interchange 29 off-ramp will require the removal and relocation of the existing ramp to just south of Bridge No. 05922 (I-91 over Route 5/15) in the form of a major diverge. The proposed left-exit ramp will consist of two lanes and require a new bridge over Route 15 SB. The proposed diverge requires the realignment of Route 15 NB and widening of the southern approach to the Charter Oak Bridge (Bridge No. 06000A, Route 15 NB over I-91, Reserve Road and rail line). The Charter Oak Bridge (Bridge No. 06000A) consists of a 12-foot left shoulder, three 12-foot travel lanes and a 12-foot right shoulder. In order to accommodate the two lanes from I-91 and Route 15, it is proposed to modify the existing pavement markings to provide a 4 foot left shoulder, four 11-foot travel lanes, and a 12-foot right shoulder.

Due to the proximity of a four-lane merge and lane drop at Interchange 90, it was determined that Route 15 would be widened to three travel lanes from north of the Charter Oak Bridge to the Silver Lane underpass, and provide a lane-drop prior to its merge with I-84 EB. The widening addresses congestion concerns on Route 15 and allows a more desirable distance from Interchange 29 to merge from three travel lanes to two prior to its merge with I-84 EB. This improvement will require the widening of Bridge No. 06043A (Route 15 over Route 5) and Bridge No. 05796 (Route 15 over Silver Lane).

The proposed widening of I-91 NB may affect a known entombed area of contaminated material located in the embankment between I-91 NB and Route 15 SB just to the north of Airport Road, as well as the environmental mitigation site located just south of Bridge No. 05922 (I-91 over Route 15, between I-91 NB, and Route 15 SB).

1.4 SCHEDULE

The current schedule anticipates milestone dates for:

- PD Plan Submittal January 2016
- Design Approval June 2016
- FDP November 2017
- DCD December 2017
- ADV January 2018
- Begin Construction May 2018

1.5 CRASH ANALYSIS

CTDOT collects and analyzes crash information on all state roadways and compiles the data into a list entitled *Suggested List of Surveillance Study Sites* (SLOSSS)[1]. The objective of the list is to identify locations which have the "greatest promise" of crash reduction to give a "broad measure of overall needs of highway safety improvements". The current list, dated 2011 – 2013, identifies a number of locations within the project area that require attention and safety improvements (see attached). These include I-91 northbound from the Interchange 27 Off-Ramp to Brainard Road (Mile Post 35.59) to the State Route 5/15 underpass (Mile Post 37.50). Sections of State Route 5/15 Northbound from the I-91 Northbound On-Ramp to I-84 Eastbound also appear on the list. Both of these areas correspond to the construction limits of the proposed project. A copy of the 2011 – 2013 SLOSSS appears in Figure 10 of the project's Traffic Report.

Crash data was also compiled from CTDOT's Traffic Accident Viewing System (TAVS) for the three-year period from 2011 to 2013. The data was obtained for I-91 Northbound, and State Route 5/15 Northbound within the limits of the project. A total of 751 crashes were reported on I-91 Northbound between the Interchange 26 on-ramp and the Interchange 29A off-ramp. Of that, 559 of these were rear-end type crashes; 100 were sideswipe-same direction type crashes and 76 were fixed-object type crashes. The remaining 16 crashes were turning-same direction (4), moving object (6), overturn (4), backing (1) or unknown (1) type crashes. These crashes resulted in 1 fatality and 178 injuries.

Route 15 northbound had a total of 201 crashes occur between Interchange 85 – Silas Deane Highway (Route 99) and I-84 Eastbound in East Hartford. The most common types of crashes for the Route 15 Northbound segment are fixed objects (98), rear-ends (50) and sideswipes (43). The remaining ten (10) crashes were moving object (5), miscellaneous non- crash (3), sideswipe – opposite direction (1) and head-on (1). The four (4) most common contributing factors to crashes on this section of State Route 5/15 are driver lost control (73), following too closely (45), speed to fast for conditions (30) and improper lane change (23). Sixty-one (61) injuries and 3 fatalities were reported on this segment of State Route 5/15 northbound. One fatality occurred on the segment between Interchange 87 Off-ramp – Brainard Road to Interchange 89 Off-ramp – I-91 Northbound. Another fatality occurred on the segment between Interchange 89 On-ramp – I-91 Northbound to Interchange 90 Off-ramp – Route 2/Main St. The third fatality occurred along the Interchange 91 Off-ramp – Silver Lane to Interstate 84 Eastbound segment.

1.6 TRAFFIC VOLUMES

Traffic volumes for the project were developed by the CTDOT – Bureau of Policy & Planning, Office of Policy & Strategic Planning. Included were volumes for the morning peak hour of traffic, evening peak hour of traffic and average daily traffic (ADT) under the 2015 No-Build (existing) traffic condition; the 2039 No-Build traffic condition; and the 2039 Build traffic conditions. The volumes show I-91 northbound has an Average Daily Traffic (ADT) volume of 66,600 vehicles per day (VPD) and is anticipated to grow to 75,800 VPD in the Design Year 2039. The I-91 Northbound Off-Ramp at Interchange 29 currently has 1,790 vehicles per hour (VPH) during the peak hour of traffic. This is anticipated to grow to 2,100 VPH in the Design Year 2039 which is overcapacity for the single-lane ramp. Volumes on Route 5/15 Northbound on the Charter Oak Bridge show 43,000 VPD growing to 49,500 VPD in 2039. These volumes are depicted in Figures 3 (2015 No-Build), 4 (2039 No-Build) and 5 (2039 Build) of the project's Traffic Report.

[1] "Pursuant to Title 23 United States Code Section 409, this data is not admissible and not discoverable in any federal or state court proceeding, and cannot be considered for any other purpose in any action for damages arising from an occurrence at a location addressed in this report."

1.7 DESIGN STANDARDS AND CRITERIA

Based on the DOT Bureau of Planning, Interstate 91 and State Route 15 are classified as "Urban Principal Arterial – Non Access Expressway". Design Criteria used to develop improvements for this project as well as other roads and ramps are in accordance with the requirements of the following publications:

1. Consultant Administration and Project Development Manual
2. Project Development Guide
3. Standard Specification for Roads, Bridges and Incidental Construction (Form 816) and Supplemental Specifications
4. Highway Design Manual
5. Location Survey Manual
6. Specifications for Aerial Photography and Photogrammetric Mapping
7. Specifications for Checking Photogrammetric Mapping
8. Policies and Procedures for Property Maps
9. Guide for Preparation of 13a-57 Plans
10. Bridge Design Manual
11. Bridge Design Standard Practices
12. Drainage Manual
13. HEC-18 Evaluating Scour at Bridges
14. Water Resources Coordination and Permit Processing Manual
15. On-Site Mitigation for Construction Activities
16. Connecticut Stormwater Quality Manual
17. Connecticut Guidelines for Soil Erosion and Sediment Control
18. Geotechnical Engineering Manual
19. Traffic Control Signal Design Manual
20. Utility Mailing List
21. ConnDOT Policy on the Accommodations of Utilities
22. Standard Roadway Drawings and List of Road Standards
23. Cost Estimating Guidelines
24. Design Aids (Factors for Estimating Quantities)
25. Product Use Status Lists
26. Index of Recurring Special Provisions and Index of Guide Special Provisions
27. Digital Project Development Manual
28. CTDOT InRoads V8i Guide
29. CTDOT AASHTOWare Project Estimator Procedures Guide
30. Design/Constructability Plan Review Guidelines
31. Public Involvement Guidance Manual
32. Bridge Welding Code, American Welding Society (D1.5)
33. All Publications of the American Society of Testing and Materials
34. All Publications of the American Welding Society
35. Steel Construction Manual – American Institute of Steel Construction
36. The National Electrical Manufacturer's Association Requirements

37. Transportation Research Board "Highway Capacity Manual"
38. All Publications of the American Association of State Highway and Transportation Officials (AASHTO)
39. Manual on Uniform Traffic Control Devices
40. American Standard Practice for Roadway Lighting

In addition, the FHWA Conceptual Access Modification Report recently submitted for the project was developed in accordance with Federal Highway Administration (FHWA) policies and the May 2009 agreement between FHWA and CTDOT. The Conceptual Access Modification Report seeks to address the requirements of the revised document entitled Policy and Procedures for New or Revised Interstate Access Approval in Connecticut and to provide the information, documentation and analyses required to secure FHWA approval of the project. See Appendix A for design criteria for each roadway

2.0 PROPOSED EXCEPTIONS TO DESIGN CRITERIA

In accordance with The Department's Highway Design Manual, section 6.6.02, CME will request design exceptions for following items:

- Travel lane and shoulder widths
- Horizontal alignment
- Vertical curvature
- Stopping Sight Distance
- Superelevation
- Minimum vertical clearances

Many of the design exceptions are necessary to accommodate controls at existing conditions. As a rule, this project does not consider the existing conditions within the limits of construction as a design exception. Rather, the following narrative and tables identify only substandard designed elements along with their associated alternatives and cost ramifications.

Three speed studies were conducted during the Preliminary Engineering Phase of the project to determine the 85th percentile speed:

Based on this information, the chosen design speed for the project on I-91 NB and Route 5/15 NB is 70 mph. As a result, the existing horizontal and vertical geometry for all sections of I-91 Northbound within the project limits is substandard. This can mainly be attributed to the fact that I-91 was constructed in the late 1960's and the mainline geometry has not been upgraded since. Another consideration is that in some areas, I-91 Northbound and Southbound run parallel horizontally and vertically and no construction is proposed for 91 Southbound on this project.

Speed Study Location	85th % Speed (mph)	Posted Speed (mph)
Route 15 NB at the I-91NB split	71	55
I-91NB at the Route 15 NB split	68	55
Route 15 SB north of Airport Road overpass	72	55

2.1 TRAVEL LANE AND SHOULDER WIDTHS

91NB Median Shoulder

Due to the proposed widened median barrier required for the sign structures along I-91 NB, the left shoulder width does not meet the minimum design criteria in the following location:

Location	Proposed Width (ft)	Standard Width
91NB Sta. 125+50 to 159+00	6-8 (varies)	12

91NB Median Shoulder Alternative

The current design maintains the existing yellow painted shoulder line of 91NB and offsets the lanes from there to calculate the widening. To accommodate a full width median shoulder (12') through this area, the roadway and structure widenings would need to be offset 6' further than the current design between stations 120+00 and 159+00. The following is a breakdown of the work required to eliminate this design exception.

- Widen and Raise I-91 NB&SB from station 110+00 to 159+00 (approx. $22M)
    - Including the reconstruction of the exit 28 offramp to US5/RTE15SB which may require mainline geometry modifications to fit
- Demolish and Replace Bridge No. 00813 (NB&SB) over US5/RTE15 (approx. $31M)
    - Widen an additional 14' for median shoulder and sight line
    - Raise 2' achieve standard minimum vertical clearance
- Demolish and Replace Bridge 01466 (NB&SB) over US5/RTE15SB and 91SB Ramps (approx. $17M)
    - Widen an additional 14' for median shoulder and sight line
    - Raise 2' achieve standard minimum vertical clearance
- Demolish and Replace Bridge No. 00480 over Airport Road (approx. $10.5M)
    - Widen an additional 14' for median shoulder
    - Raise 2' achieve standard minimum vertical clearance
- Modification of the existing entombed contaminated material area between 144+00 and 153+00. (approx. $0.5M)
- Construct wall between I-91NB Sta. 153+00 and Bridge No. 05922 (91NB over US5/RTE15NB) to avoid wetland impacts. (approx. $0.5M)

US5/RTE15NB Left Shoulder and Lane Widths

Additional lane(s) are being added to the Charter Oak Bridge without widening the Charter Oak Bridge itself. Consequently, the left shoulder width does not meet the minimum design criteria in all locations. Lane widths were reduced to 11' on Route 15 NB for the purpose of improving sight distance on the approach to the northeast abutment corner of Bridge 5922. Lane widths were reduced to 11' on Route 15 NB Exit 89 for the purpose of improving sight distance on the approach to the southwest abutment corner of Charter Oak Bridge. Additionally, the lanes being added to the Charter Oak Bridge along Route 5/15 NB also require a travel lane width that does

not meet the minimum design criteria in some areas. The following is a table outlining the substandard shoulders and lane widths:

Location	Proposed Width (ft)	Standard Width
SHOULDER WIDTH		
91NB to US 5/Route 15 NB 178+58.50 to 225+40.00	4-8 (varies)	12
LANE WIDTH		
US 5/ Route 15 NB Sta. 391+81 to 428+23.67	11-12 (varies)	12
I-91 NB to US 5/ Route 15 NB Relocation Exit 29 Sta. 177+68 to 221+50	11-12 (varies)	12
US 5/ Route 15 NB to I-91 NB Exit 89 Sta. 500+00 to 513+38.54	11-12 (varies)	12

US5/RTE15NB Left Shoulder and Lane Widths Alternative

The alternative approach to this would be to widen the northbound side of the Charter Oak Bridge (Bridge 06000A) enough to accommodate 2-12' shoulders and 4-12' lanes, totaling 72' which is a 12' increase. This new widening would affect the 1675' main span which is largely untouched in the current design. The following is a breakdown of the associated costs and additional requirements.

- Widen Charter Oak Bridge (approx. $50.0M)
  - Variable widening of spans 1-4
  - 12' widening of remaining spans which will require permitting for construction over water
  - West Abutment and Pier 1 cap widening
- Demolish and Replace Pier and relocate North Abutment of Bridge No. 05922 (91NB over US5/RTE15NB) to provide standard shoulders and sight line (approx. $18.2M)

The following impacts are anticipated to achieve the design standard for travel lane and shoulder widths:

- ROW—Metropolitan District property impacts adjacent to Exit 27; US Department of Agriculture in vicinity to western approach Charter Oak Bridge
- Environmental—embankment limits in wetlands adjacent to I-91 NB; Entombed Area and Mitigation Pond impacts; Pier widening in Connecticut River, additional wetlands in East Hartford
- Schedule—project schedule extended for permitting and construction schedule extended due to scale of work.
- Engineering—I91 Exit 28 horizontal geometry becomes more restrictive. Additional work on Charter Oak Bridge. Additional widening of Bridges 813, 1466 and 480. Additional profile impacts to Airport Road and twin culverts necessitating a relocation;
- Cost—$150M to avoid design exception

2.2 HORIZONTAL ALIGNMENTS

Minimum Radii

Below is a chart showing where new alignments are required to tie into existing alignments that do not meet the required minimum radius. As a result, the new alignments are substandard in order to provide a comfortable transition.

Curve Location PC Sta. to PT Sta.	Design Speed (mph)	Posted Speed (mph)	Standard Radius (ft) @ e=5.8%	Existing/Proposed Radius (ft)	Best Case Design Speed (mph)
RTE 15 NB Exit 89 Ramp to I-91 NB					
503+10.417 to 510+36.216	70	55	2500	*1500*/1665	65
513+38.536 to 520+79.139	70	55	2500	*1350*/1665	65
I-91 NB Exit 28					
801+78.719 to 805+93.181	30	25	275	*125*/135	<25

Compound Curve Ratios

The following table outlines the instances of compound curves which do not meet the 1.5:1 ratio:

Curve Location PC Sta. to PT Sta.	Design Speed (mph)	Posted Speed (mph)	Proposed Radius (ft)	Minimum Compound Curve Ratio	Proposed Compound Curve Ratio
I-91 NB Exit 28 Off Ramp					
800+00.000 to 801+78.719	30	20	550	1.5:1	4.07:1
801+78.719 to 805+93.181	30	20	135		
801+78.719 to 805+93.181	30	20	135	1.5:1	44.44:1
805+93.181 to 810+27.322	30	20	6000		

US5/RTE15NB Exit 89 Alternative

In order to make this exit ramp standard for a 70MPH design speed, the minimum allowable radius for a 5.8% superelevation would be 2500' versus the provided 1665' along with a 255' tangent between the reverse curves for the 2.5s travel time required by the CTDOT HDM. Due to the sightline restriction caused by the north abutment of Bridge No. 05922, and the proposed widening of the west abutment of the Charter Oak Bridge, the following is offered as an alternative.

- Relocate US5/RTE15 Exit 89 to a right-hand exit prior to Bridge No. 05922 and merge with I-91NB traffic from the right which will potentially impact the rail siding at the farmers market. Modifications to the profile of I-91NB north of Bridge 5922 as well as a wall would also be necessary to account for the grade change. (approx. $5M)

I-91NB Exit 28 Alternative

This cloverleaf shaped exit to US5/RTE15SB is located in the narrow space bounded by I-91NB, US5/RTE15NB and the US5/RTE15SB to Brainard Road exit ramp. Rather than reconstructing these roadways, the alternative requires a relocation of the Exit 28 ramp altogether. Below is a breakdown of the associated changes and costs related to relocating 91NB Exit 28 to the Exit 27 location similar to what was proposed in the PDU alternate 4 routing traffic to Brainard Road.

- Reconstruct Ramp Terminus Intersection with Brainard Road (approx. $0.5M)
- Reconstruct Airport Road and Brainard Road Intersection (approx. $0.5M)
- Widen Airport Road (approx. $1M)
- Reconstruct Bridge No. 00481, Airport Road over US5/RTE15 (approx. $9.5M)
- Reconstruct Bridge No. 01466 (approx. $17M)
- Reconstruct Bridge No. 00480 (approx. $10.5M)

The following impacts are anticipated to achieve the design standard for horizontal alignments:

- ROW—Potential ROW on Brainard Road for Exit 28 Alternative and Farmers Market Property for Exit 89 Alternative
- Environmental—Miscellaneous wetlands adjacent to I-91 NB; Potential impacts to twin culverts and watercourse adjacent to widen Airport Road.
- Schedule—Bridge Reconstruction adds to both Design and Construction Schedules.
- Engineering—Changed traffic patterns on Route 15 NB Exit 89 to I-91 indicate negative impacts for weaving in Capitol Area.
- Cost—$44M to avoid design exception

2.3 VERTICAL CURVATURE

The proposed vertical alignment will match the existing vertical alignment for a majority of the proposed reconstruction. However, the existing vertical alignment does not meet the minimum design standards at various locations. In addition, the new alignments tie into the existing alignments and in order to provide a comfortable transition these new alignments also do not meet the minimum stopping sight distance at various locations. The proposed vertical curves below do not meet the minimum required stopping sight distance in order to provide a transition as it ties into the existing alignment.

Curve Location PVC Sta. to PVT Sta.	Design Speed (mph)	Standard K-Value	*Existing*/ Proposed K-Value	Best Case Design Speed (mph)	Curve Type
RTE 15 NB Exit 89 Ramp to I-91 NB					
507+19.385 to 511+69.385	70	247	140/180	60	Crest
512+33.992 to 517+83.992	70	181	85/153	65	Sag
Airport Road					
42+75.000 to 45+75.000	35	49	45/38	30	Sag

US5/RTE15NB Exit 89 Alternative: Right Hand Merge

- The US5/RTE15NB alignment is constrained by the new bridge (exit 29 tie-in to Charter Oak Bridge Abutment) as well as the 4% maximum grade allowed by this project. Since it is critical that this alignment matches the Charter Oak Bridge prior to the west abutment, the

alternative would be to raise US5/RTE15NB. This will add a negligible amount of pavement reconstruction on this roadway but will require demolishing and replacing the pier and relocating the North Abutment of Bridge No. 05922 (91NB over US5/RTE15NB) to provide standard shoulders and improve the sight line issue caused by the Charter Oak Bridge abutment. (approx. $18.2M)

- The gore between Exit 89 and 91NB is on a sag curve that meets the grade of Bridge No. 06117 just upstation. This tie-in results in a substandard vertical curve needed to maintain a traversable grade in the gore. The proposed alternate solution in this location is to raise I-91 NB between Bridge Nos. 05922 and 06117 to flatten the tie-in. (approx. $2M)

Airport Road Alternative

Due to the drainage structure (culvert 06654) and utilities underneath Airport Road and proximity of the I-91NB underpass to the US5/RTE15 overpass, the recommended alternative is to raise I-91 NB and SB. The profile would be raised along the existing crest curve over airport road, and would tie in along the tangent section of highway adjacent to the entombed contaminated material. The following work would be required to meet design standards.

- Raise I-91 NB&SB from station 110+00 to 159+00 (approx. $22M)
- Bridge Nos. 01466 and 00480 (approx. $27.5M)
- Construct wall between I-91NB Sta. 153+00 and Bridge 05922 (91NB over US5/RTE15NB) to avoid wetland impacts. (approx. $0.5M)

The following impacts are anticipated to achieve the design standard for vertical alignments:

- ROW—N/A
- Environmental—N/A
- Schedule—Bridge and Wall Reconstruction adds to both Design and Construction Schedules.
- Engineering—I-91 SB will be impacted by the bridge reconstruction. The right hand merge of Exit 89 will cause adverse traffic weave impacts to I-91 on the approach to the Capitol Area.
- Cost—$70M to avoid design exception

2.4 STOPPING SIGHT DISTANCE (BASED ON LEVEL GRADES)

Location	Design Speed (mph)	Standard S.S.D. (ft)	Proposed S.S.D. (ft)	Existing S.S.D. (ft)	Best Case Design Speed (mph)
CT 15 NB Sta. 506+10 Bridge Abutment Obstruction	70	730	615.09	705.65	60
Entrance to I-91 SB & US 5/Rte. 15 SB Sta. 53+77 Barrier Obstruction	40	305	210	210	30
I-91 NB Sta. 121+75 Bridge parapet obstruction	70	730	597	623	60
I-91 NB Sta. 133+00 Bridge parapet obstruction	70	730	630	630	60

Alternative

- Relocate US5/RTE15 Exit 89 to a right-hand exit prior to Bridge 5922 and merge with 91NB traffic from the right. This would require modifications to 5922 and potentially impact the rail siding at the farmers market. This would also require modifications to the profile of 91NB north of bridge 5922. (approx. $5M)
- Demolish and Replace Pier 1 and relocate North Abutment of Bridge 05922 (91NB over US5/RTE15NB) (approx. $18.2M)
- Realign 91SB/US5/RTE15SB onramps underneath Bridge No. 01466 abutment to maximize sight distance (approx. $1.3M)
- The 91 Median Shoulder Alternative in section 2.1 of this report has the sight line design exception alternative built into it. The estimate for that section included the 6 additional feet required for the median shoulder deficiency as well as the 8 additional feet required for the sight line impacted by the fascia parapets of Bridge Nos. 00813 and 01466. Also included, as a result of the bridge work is the raising of 91 NB and SB, Bridge No. 00480 reconstruction, and the wall upstation to avoid wetland impacts. This means that the same cost required to fix the travel lanes and shoulder widths, also applies in-full to the fix of the sight distance. (approx. $81.5M)

The following impacts are anticipated to achieve the design standard for SSD:

- ROW—Metropolitan District property impacts adjacent to Exit 27; US Department of Agriculture in vicinity to western approach Charter Oak Bridge
- Environmental—Embankment limits in wetlands along I-91 NB; Entombed Area and Mitigation Pond impacts along I-91.
- Schedule—Bridge Reconstruction adds to both Design and Construction Schedules.
- Engineering—Changed traffic patterns result in negative impacts to weaves.
- Cost—$106M to avoid design exception

2.5 SUPERELEVATION

The existing superelevation does not meet the minimum design criteria at many locations. The table below lists the locations of substandard superelevation in order to provide a comfortable transition.

Curve Location PC Sta. to PT Sta.	Design Speed (mph)	Radius (ft)	Standard Superelevation (%)	Proposed Superelevation (%)	Best Case Design Speed (mph)
I-91 NB to RTE 15 NB					
177+67.921 to 181+97.999	70	2800	5.5%	3.4%	45
181+97.999 to 191+12.308	70	3330	5.0%	3.4%	50
RTE 15 NB to Charter Oak Bridge					
403+56.645 to 409+16.729	70	2050	6.0%	4.2%	50
413+60.136 to 417+91.192	70	2755	5.6%	4.2%	55
417+91.192 to 428+23.666	70	3800	4.6%	3.4%	55
RTE 15 NB Exit 89 Ramp to I-91 NB					
503+10.417 to 510+36.216	70	2050	6.0%	5.8%	60
513+38.536 to 520+79.139	70	2050	6.0%	4.2%	45
I-91 NB Exit 27					
10+00.000 to 16+88.961	50	1100	5.8%	4.9%	40

Note: The Charter Oak Bridge was built with a superelevation of 4.2%, while survey shows an existing 3.4% superelevation rate. The proposed superelevation has to tie into the existing 3.4% superelevation rate. The new superelevation rate is insufficient in order to provide a comfortable transition as it ties into the substandard existing superelevation rate.

Alternative

In order to provide the necessary superelevation design on the western approaches to the Charter Oak Bridge, the length and radius of the curves would need to be increased.

- Increase radius of US5/RTE15NB Exit 89 from 1665' to 2500' (+835')
  - Completely Demolish and Replace Bridge No. 05922 (91NB over US5/RTE15NB), not only the pier and north abutment as previously discussed. The cost of reconstructing the pier and northern abutment was estimated to cost $18M, reconstructing the entire bridge results in an increase of $2M. (approx. $20M)
  - This alternative may also include the right-hand Exit 89 merge onto I-91NB traffic which is described in the section 2.4. The superelevation of the right-hand curve of Exit 89 can be adjusted, however, the left-hand curve that ties into Bridge No. 06117 will need to remain substandard to tie into the existing bridge and 91NB. For this reason, this alternative does not relocate exit 89 south of Bridge No. 05922.
- Increase radius of US5/RTE15NB under reconstructed Bridge No. 05922 and at western Charter Oak Bridge approach from 2050' to 2500' (+450') (approx. $1.5M)
- Shift new bridge to the west, no cost beyond current design
- Shift US5/15SB to the west
  - Reconstruct wall and pavement widening (approx. $1.5M)
- Shift 1 mile of 91SB onramp and 91SB Mainline to the west from reserve road underpass to Airport Road (approx. $11M)

The following impacts are anticipated to achieve the design standard for superelevations:

- ROW—Metropolitan District property impacts adjacent to Exit 27; US Department of Agriculture in vicinity to western approach Charter Oak Bridge
- Environmental—N/A
- Schedule—Bridge 5922 Reconstruction adds to both Design and Construction Schedules.
- Engineering—Considerable staging issues for bridge replacement. Changed traffic patterns result in negative impacts to weaves.
- Cost—$34M to avoid design exception

2.6 VERTICAL CLEARANCES

Construction is proposed beneath the following bridges in order to meet minimum vertical clearance (MVC) of 16'-0" over a freeway, as described below:

- Lowering approximately one thousand (1,000) feet of US5/RTE15 NB and SB under I-91 at Bridge No. 00813
- Lowering the Airport Road on-ramp to US5/RTE15 SB and I-91 SB under Bridge No. 01466

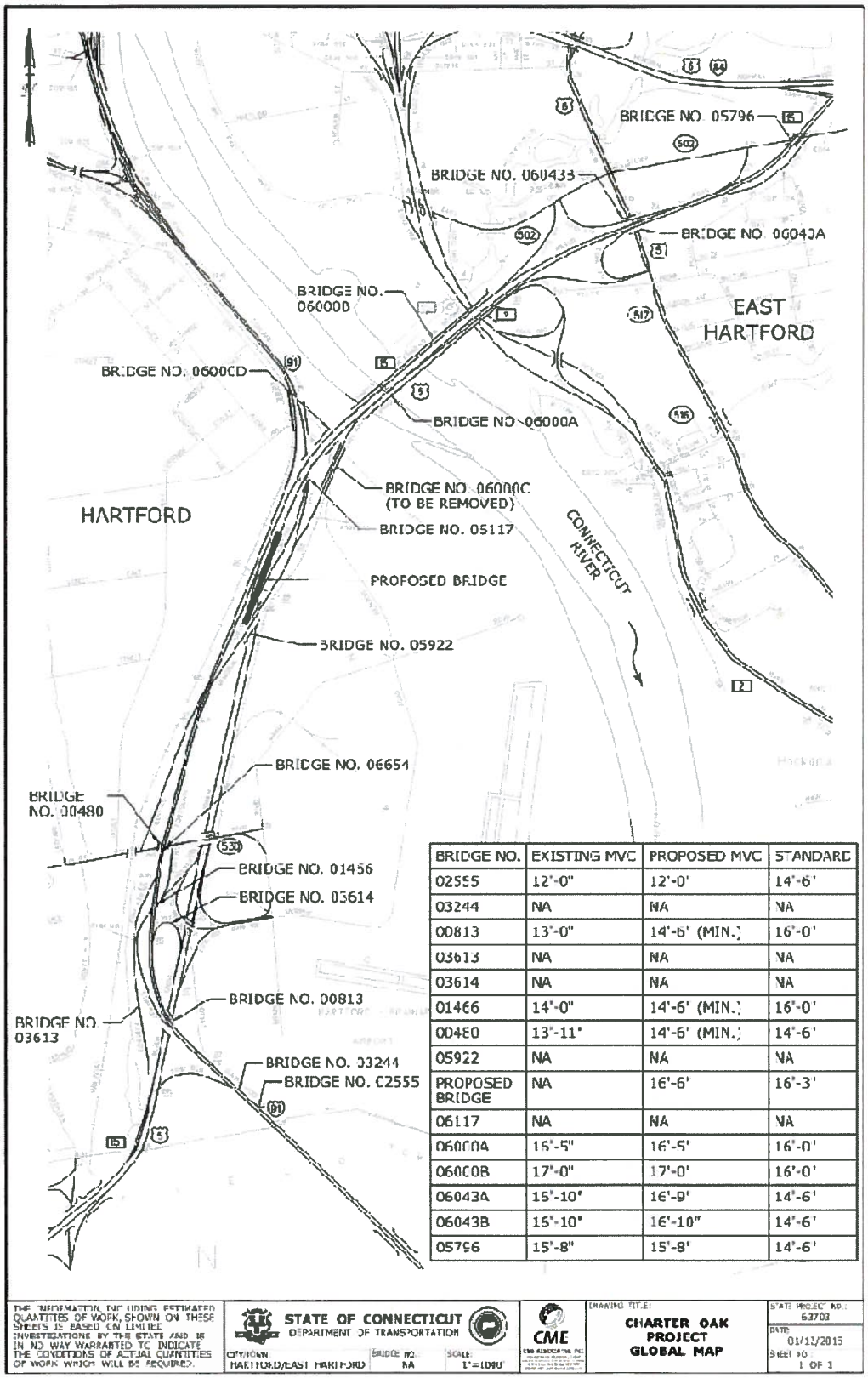
The profile revisions of US 5/Route 15 under Bridge No. 00813 and the Ramp under Bridge No. 01466 do not meet the standard of 16'-0" over a freeway. The alternatives outlined in section 2.1 of this report which raises 91NB and 91SB along the southern end of this project would eliminate the need for this design exception. The following is a list of the work and associated costs.

- Widen and Raise I-91 NB&SB from station 110+00 to 159+00 (approx. $22M)
- Demolish and Replace Bridge No. 00813 (NB&SB) over US5/RTE15 (approx. $31M)
  - Widen an additional 14' for median shoulder and sight line
  - Raise 2' achieve standard minimum vertical clearance
- Demolish and Replace Bridge 01466 (NB&SB) over US5/RTE15SB and 91SB Ramps (approx. $17M)
  - Widen an additional 14' for median shoulder and sight line
  - Raise 2' achieve standard minimum vertical clearance
- Modification of the existing entombed contaminated material area between 144+00 and 153+00. (approx. $0.5M)
- Construct wall between I-91NB Sta. 153+00 and Bridge No. 05922 (91NB over US5/RTE15NB) to avoid wetland impacts. (approx. $0.5M)

The following impacts are anticipated to achieve the design standard for vertical clearance:

- ROW—Potential takes to adjacent properties along I-91 NB/SB Station 110+00 to 159+00
- Environmental— Potential wetland and entombed area along I-91 NB/SB Station 110+00 to 159+00
- Schedule—Bridge and wall design and construction will increase total schedule.
- Engineering—Staging issues will result in significant short term impacts though improvements to both directions will increase safety long term.
- Cost—$71M to avoid design exception.

See the following page for the Minimum Vertical Clearance Map of bridges located on this project.



BRIDGE NO.	EXISTING MVC	PROPOSED MVC	STANDARD
02555	12'-0"	12'-0'	14'-6'
03244	NA	NA	NA
00813	13'-0"	14'-6' (MIN.)	16'-0'
03613	NA	NA	NA
03614	NA	NA	NA
01466	14'-0"	14'-6' (MIN.)	16'-0'
00480	13'-11"	14'-6' (MIN.)	14'-6'
05922	NA	NA	NA
PROPOSED BRIDGE	NA	16'-6'	16'-3'
06117	NA	NA	NA
06000A	15'-5"	16'-5'	16'-0'
06000B	17'-0"	17'-0'	16'-0'
06043A	15'-10"	16'-9'	14'-6'
06043B	15'-10"	16'-10"	14'-6'
05796	15'-8"	15'-8'	14'-6'

3.0 SUMMARY

A common engineering challenge in Connecticut is the improvement of urban highway interchanges that are developed on all sides by sensitive property and existing limits that were built to design criteria that does not fit with today's vehicle and driver characteristics. In most cases, the proposed design increases safety and mobility over the existing highway by improving engineering standards for geometric design. The current design is a balance between the impacts of the construction and the cost effectiveness of the overall project.

The following is a list of the most significant impacts:

- ROW Impacts

  The scope of work required to revise the existing horizontal and vertical geometry to current design standards would require the relocation of US5/RTE15NB south of Bridge No. 05922. The significance of this relocation lies in the proximity to the Farmers Market railroad siding. A ramp widening to the east side of the corridor here would impact the current right of way and possibly the railroad alignment itself.

- Environmental Impacts--Entombed Material, Swales, Wetlands and Connecticut River.

  Increasing shoulders and travel lanes to the current standard width would result in environmental impacts and cost increases throughout the Hartford section of this project. The existing entombed material and man-made wetland to the north is a sensitive area of this project. A retaining wall would be needed in this area due to the widened roadway which would encroach into the entombed area and displace a portion of the wetland.

- Schedule Impacts--Main Span widening of Charter Oak Bridge

  In order to add a lane and maintain a full 12' wide lanes and shoulders would result in the full length widening of the Charter Oak Bridge which would increase the construction duration and impacts to commuters and regional travelers. The permitting process, design and construction duration would significantly lengthen the schedule.

  Redesigning the existing geometry to current design standards would require raising 91NB and 91SB and the full reconstruction of all bridges in the corridor resulting in a significant increase of the construction duration as well as the overall project cost.

- Engineering Impacts

  I-91 NB Exit 28 Ramp Geometry

  I-91 NB Culvert Rehabilitation

  Reconstruction and widening of Bridge 6000A

  Railroad Relocation

- Cost to Avoid Design Exceptions

  Throughout the body of this document, the costs presented have been on a per-design-exception basis. The following is an all-encompassing cost estimate using the same approximate values outlined in this report. This means that this estimate includes all structural and roadway reconstruction that is required in the elimination of all design exceptions but with each element only being estimated once.

  - 2.1: Travel Lane and Shoulder Widths

- Widen and Raise I-91 NB&SB from station 110+00 to 159+00 (approx. $22M)
- Reconstruct Bridge Nos. 00813, 01466, and 00480 (approx. $58.5M)
- Wetland Wall (approx. $0.5M)
- Reconstruct Pier and Abutment of Bridge 05922 (approx. $18.2M)
- Widen Charter Oak Bridge (approx. $50M)
- Modification of the existing entombed contaminated material area between 144+00 and 153+00. (approx. $0.5M)

- 2.2: Horizontal Alignments: Minimum Radii and Curve Ratios
  - Relocated US5/RTE15NB Exit 89 South of Bridge No. 05922
    - Reconstruct 91NB between bridge nos. 05922 and 06117 (approx. $5M)
    - Reconstruct Pier and Abutment of Bridge 05922 (cost included)
  - Relocated I-91NB Exit 28
    - Includes Intersection Reconstructions and Airport road widening (approx. $2M)
    - Reconstruct Bridge No. 00481 (approx. $9.5M)
    - Reconstruct bridge nos. 00480, 01466, and 00813 (cost included)

- 2.3: Vertical Curvature: Crest and Sag Curves
  - Relocated US5/RTE15NB Exit 89 South of Bridge No. 05922 (cost included)
  - Widen and Raise I-91 NB&SB from station 110+00 to 159+00 (cost included)
  - Reconstruct Bridge Nos. 01466 and 480 (cost included)
  - Wetland Wall (cost included)

- 2.4: Stopping Sight Distance
  - Realign 91SB/US5/RTE15SB onramps underneath Bridge No. 01466 abutment to maximize sight distance (Approx. $1.3M)
  - Relocated US5/RTE15NB Exit 89 South of Bridge No. 05922 (cost included)
  - Reconstruct Pier and Abutment of Bridge 05922 (cost included)
  - Widen and Raise I-91 NB&SB from station 110+00 to 159+00 (cost included)
  - Reconstruct Bridge Nos. 00813, 01466, and 00480 (cost included)

- 2.5: Superelevation
  - Complete reconstruction of Bridge No. 05922 (additional $2M)
  - Relocated US5/RTE15NB Exit 89 South of Bridge No. 05922 (cost included)
  - Increase radius of US5/RTE15NB under bridge no 05922 (approx. $1.5M)

  - Shift US5/15SB to the west, Reconstruct wall and pavement widening (approx. $1.5M)
  - Shift 91SB onramp and 91SB Mainline to the west (approx. $11M)

- 2.6: Minimum Vertical Clearance
  - Reconstruct bridge nos. 01466 and 00813 (cost included)

Despite the proposed design exceptions, this project addresses the critical safety concerns related to the congestion and operational limitations of the existing Interchange 29 of 91NB. The design exceptions that have been proposed in the preliminary design have been included to limit the duration of construction thereby mitigating the length of disruption to the travelling public, as well as avoiding significant environmental and rights of way impacts.

Submitted By:

Dale L. Spencer Date: 5/18/16

Dale Spencer, P.E.

Project Manager

Recommended for Approval By:

Digitally signed by Sebastian Cannamela
Date: 2016.05.18 15:11:46-04'00' Date: 05/18/16

Sebastian Cannamela, P.E.

Project Manager

Susan M. Libatique
2016.05.18
15:24:55-04'00' Date: 5/18/16

Susan Libatique, P.E.

Principal Engineer

Date: 5-19-16

Timothy M. Wilson, P.E.

Manager of Highway Design

Date: 5-24-16

Scott. A. Hill, P.E.

Engineering Administrator

Approved By:

David W. Kuehne Date: 5/24/16

for Amy Jackson-Grove

Federal Highway Administration

APPENDIX A: DESIGN VALUES

Road Name	**Interstate 91 Northbound**
Classification	**Urban Principal Arterial Interstate**
General Section	**Three Lanes**

Design Information

	Design Standards	Project Values
Design Speed	65-70 MPH	70 MPH
Number of Lanes (each direction)	3	3
Lane Width (ft)	12'	12'
Left Shoulder Width (ft) (Min. - Desirable)	12'	6'-12'
Right Shoulder Width (ft) (Min. - Desirable)	12'	10'-12'
Min. Radius (e max. = 6%)(ft)	2050'	2565'
Max. Superelevation Rate (%)	6%	4.80%
Stopping Sight Distance (ft) Desirable	730'	745'
Max. Grade (%)	4%	2.55%
Median Width (ft) (Min.- Desirable)	≤ 66'	18'-38'
ADT (2039 one way)	-	65800
Controlled Access	Yes	Yes

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**Route 15 Northbound West of Charter Oak Bridge**
Classification	**Urban Principal Arterial Expressway**
General Section	**Two Lanes**

Design Information

	Design Standards	Project Values
Design Speed	70 MPH	70 MPH
Number of Lanes (each direction)	2	2
Lane Width (ft)	12'	11'-12'
Left Shoulder Width (ft) (Min. - Desirable)	12'	4'-12'
Right Shoulder Width (ft) (Min. - Desirable)	12'	4'-12'
Min. Radius (e max. = 6%) (ft)	2050'	2050'
Max. Superelevation Rate (%)	6%	4.20%
Stopping Sight Distance (ft) Desirable	730'	691'
Max. Grade (%)	6%	3.50%
Median Width (ft) (Min.- Desirable)	8'-20'	16'
ADT (2039 one way)	-	47100
Controlled Access	Yes	Yes

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**Route 15 Northbound East of Charter Oak Bridge**
Classification	**Urban Principal Arterial Expressway**
General Section	**Two Lanes**

Design Information

	Design Standards	Project Values
Design Speed	70 MPH	45 MPH
Number of Lanes (each direction)	2	2
Lane Width (ft)	12'	11'-12'
Left Shoulder Width (ft) (Min. - Desirable)	12'	4'-12'
Right Shoulder Width (ft) (Min. - Desirable)	12'	12'
Min. Radius (e max. = 6%)(ft)	2050'	1919.33'
Max. Superelevation Rate (%)	6%	5.80%
Stopping Sight Distance (ft) Desirable	730'	404'
Max. Grade (%)	6%	3.25%
Median Width (ft) (Min.- Desirable)	8'-20'	22'-30'
ADT (2039one way)	-	40500
Controlled Access	Yes	Yes

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**Route 15 Southbound**
Classification	**Urban Principal Arterial Expressway**
General Section	**Two Lanes**

Design Information

	Design Standards	Project Values
Design Speed	70 MPH	70 MPH
Number of Lanes (each direction)	2	2
Lane Width (ft)	12'	12'
Left Shoulder Width (ft) (Min. - Desirable)	2'-4'	10'
Right Shoulder Width (ft) (Min. - Desirable)	4'-8'	4'
Min. Radius (e max. = 6%) (ft)	2050'	3348'
Max. Superelevation Rate (%)	6%	5.80%
Stopping Sight Distance (ft) Desirable	730'	736'
Max. Grade (%)	6%	3.50%
Median Width (ft) (Min.- Desirable)	8'-20'	16'
ADT (2039 one way)	-	21600
Controlled Access	Yes	Yes

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**Interstate 91 Northbound Exit 28**
Classification	**Ramp (Exit)**
General Section	**One Lane**

Design Information

	Design Standards	Project Values
Design Speed	25 MPH	25 MPH
Number of Lanes (each direction)	1	1
Lane Width (ft)	12'	12'
Left Shoulder Width (ft) (Min. - Desirable)	4'	4'
Right Shoulder Width (ft) (Min. - Desirable)	10'	10'
Min. Radius (e max. = 6%) (ft)	190'	135'
Max. Superelevation Rate (%)	6%	6.00%
Stopping Sight Distance (ft) Desirable	155'	177'
Max. Grade (%)	6-8%	5.50%
ADT (2039 one way)	-	1600
Controlled Access	Yes	Yes
Deceleration Length (ft)	590'	816'

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**Relocated Interstate 91 Northbound Exit 29**
Classification	**Connector**
General Section	**2 Lane**

Design Information

	Design Standards	Project Values
Design Speed	70 MPH	65 MPH
Number of Lanes (each direction)	2	2
Lane Width (ft)	12'	12'
Left Shoulder Width (ft) (Min. - Desirable)	4'	12'
Right Shoulder Width (ft) (Min. - Desirable)	10'	12'
Min. Radius (e max. = 6%) (ft)	2050'	2800'
Max. Superelevation Rate (%)	6%	4.20%
Stopping Sight Distance (ft) Desirable	730'	738'
Max. Grade (%)	3-5%	3.25%
Median Width (ft) (Min.- Desirable)	-	-
ADT (2039 one way)	-	25500
Controlled Access	Yes	Yes

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertival curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**US 5/Route 15 Northbound Exit 89**
Classification	**Connector**
General Section	**Two Lane Exit Ramp**

Design Information

	Design Standards	Project Values
Design Speed	70 MPH	60 MPH
Number of Lanes (each direction)	2	2
Lane Width (ft)	12'	11'-12'
Left Shoulder Width (ft) (Min. - Desirable)	4'	12'
Right Shoulder Width (ft) (Min. - Desirable)	10'	12'
Min. Radius (e max. = 6%) (ft)	2050'	1665'
Max. Superelevation Rate (%)	6%	5.80%
Stopping Sight Distance (ft) Desirable	730'	643'
Max. Grade (%)	3-5%	3.10%
Median Width (ft) (Min.- Desirable)	-	-
ADT (2039 one way)	-	23100
Controlled Access	Yes	Yes

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**US 5/Route 15 Northbound Exit 90 to Route 2**
Classification	**Ramp (Exit)**
General Section	**Two Lane**

Design Information

	Design Standards	Project Values
Design Speed	35 MPH	35 MPH
Number of Lanes (each direction)	2	2
Lane Width (ft)	12'	12'
Left Shoulder Width (ft) (Min. - Desirable)	4'	5.5'-11'
Right Shoulder Width (ft) (Min. - Desirable)	10'	12.5'-13'
Min. Radius (e max. = 6%) (ft)	385'	412'
Max. Superelevation Rate (%)	6%	5.90%
Stopping Sight Distance (ft) Desirable	250'	708'
Max. Grade (%)	4-6%	3.64%
ADT (2039 one way)	-	4800
Controlled Access	Yes	Yes
Deceleration Length (ft)	490'	645'

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**US 5/Route 15 Northbound Exit 90 to Main Street**
Classification	**Urban Principal Arterial Other**
General Section	**One Lane Exit Ramp**

Design Information

	Design Standards	Project Values
Design Speed	30-45 MPH	45 MPH
Number of Lanes (each direction)	1	1
Lane Width (ft)	12'	12'
Left Shoulder Width (ft) (Min. - Desirable)	4'	4.25'-7'
Right Shoulder Width (ft) (Min. - Desirable)	10'	8'-11.5'
Min. Radius (e max. = 6%) (ft)	665'	675'
Max. Superelevation Rate (%)	4%	4.90%
Stopping Sight Distance (ft) Desirable	360	1103'
Max. Grade (%)	7%	3.60%
ADT (2039 one way)	-	4200
Controlled Access	Yes	Yes
Deceleration Length (ft)	390'	456'

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**On-Ramp from Main St. to US 5/Route 15 Northbound**
Classification	**Ramp (Entrance)**
General Section	**One Lane**

Design Information

	Design Standards	Project Values
Design Speed	40 MPH	30 MPH
Number of Lanes (each direction)	1	1
Lane Width (ft)	12'	12'
Left Shoulder Width (ft) (Min. - Desirable)	4'	8'
Right Shoulder Width (ft) (Min. - Desirable)	10'	8'-14'
Min. Radius (e max. = 6%) (ft)	510'	292'
Max. Superelevation Rate (%)	6%	4.90%
Stopping Sight Distance (ft) Desirable	305'	>305'
Max. Grade (%)	4-6%	2.85%
ADT (2039 one way)	-	1500
Controlled Access	Yes	Yes
Acceleration Length (ft)	1000'	>1000'

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit

Road Name	**US 5/Route 15 Northbound Exit 91**
Classification	**Ramp (Exit)**
General Section	**One Lane**

Design Information

	Design Standards	Project Values
Design Speed	40 MPH	50 MPH
Number of Lanes (each direction)	1	1
Lane Width (ft)	12'	14'-16'
Left Shoulder Width (ft) (Min. - Desirable)	4'	4'-8'
Right Shoulder Width (ft) (Min. - Desirable)	10'	10'-12'
Min. Radius (e max. = 6%) (ft)	510'	445'
Max. Superelevation Rate (%)	6.00%	6.00%
Stopping Sight Distance (ft) Desirable	305'	534'
Max. Grade (%)	4-6%	2.00%
ADT (2039 one way)	-	3600
Controlled Access	Yes	Yes
Deceleration Length (ft)	440'	>440'

(1) On four Lane Freeways
(2) Desirable width (12ft.) when truck traffic exceeds 250 DDHV
(3) Horizontal curve based on Min. SSD
(4) Vertical curve based on SSD
(5) Waiver required - exsiting condition at project limit