Traffic Management Plan

F.A.P. No. (CN)1063(143)/State Project No. 63-703

Relocation of 1-91 NB Interchange 29 and
Widening of I-91 NB and Route 5/15 NB to I-84 EB
Hartford and East Hartford, Connecticut

Issued: December 20, 2017
Revision: July 9, 2018

Prepared for:

State of Connecticut Department of Transportation
Newington, Connecticut

CONSULTANTS:

Prime Consultant: CME Associates

Sub-consultant: H.W. Lochner, Inc.

Sub-consultant: VN Engineering

Sub-consultant: Freeman Co.

Sub-consultant: Fitzgerald & Halliday

860.290.4100
www.cmeengineering.com
101 East River Drive, 1st Floor, East Hartford, CT 06108

TABLE OF CONTENTS

APPENDICES

I. Introduction

This Transportation Management Plan (TMP) was developed pursuant to the Connecticut Department of Transportation (CTDOT) "Policy on Systematic Consideration and Management of Work Zone Impacts" (Policy Number E&H.O.-57) and the associated Implementation Plan, dated August 6, 2007. The CTDOT policy conforms to the updated U.S. Department of Transportation, Federal Highway Administration (FHWA) Work Zone Safety and Mobility Rule. Project 63-703 requires intermittent, but not continuous, Interstate I-91, Interstate I-84 and Route 5/15 lane closures and one temporary ramp closure (I-91 Northbound Exit 28) lasting several months. This project, therefore meets the definition of a significant project. This TMP was initiated during the preliminary design phase and has received regular updates over time in order to reflect decisions made during the design process and actions planned for the future, including construction-phase measures.

In addition to this project's TMP, a Regional TMP has been developed by the Department spanning the Capitol Region. Over the course of the next several years, numerous bridge and highway reconstruction and rehabilitation projects are scheduled to occur on state and interstate highways in the Hartford area necessitating a more broad TMP coordination. Those projects will require ramp, lane and shoulder closures and their Maintenance & Protection of Traffic (MPT) and detour plans will potentially impact roadways within this project's limits. The project Contractor is advised that they may be required to coordinate their MPT for this project with one or more other projects in the area to assure the smooth flow of traffic in the region. Depending on the timing of this project's construction the Contractor may need to attend and participate in regularly scheduled Regional TMP meetings. The document entitled Regional Transportation Management Plan Capitol Area can be found on CTDOT's ProjectWise website 04.800 - Hartford RTMP.

II. Project Description

Interchange 29 is a partial interchange that provides a connection between I-91 northbound and Connecticut State Route 5/15 northbound, as well as between State Route 5/15 southbound and I-91 southbound. Immediately northeast of the interchange, Route 5/15 crosses the Connecticut River on a large bridge structure named the Charter Oak Bridge (Bridge No. 06000A - Route 5/15 NB over I-91, Reserve Road and Rail Line). This section of State Route 5/15 provides the freeway-to-freeway connection between I-91 south of the interchange and I-84 to the east. It is a major route for traffic between southern Connecticut and the New York City metropolitan area and eastern Massachusetts and the Boston metropolitan area. Figure 1 (below) depicts the project location.

The proposed project seeks to relocate the current single-lane right-side I-91 northbound off-ramp to State Route 5/15 northbound. The new ramp will be located on the left-side approximately 1,700 feet south of the existing ramp and will be constructed as a two-lane major left diverge from the existing mainline of I-91 northbound.

In order to facilitate the movement of traffic in the vicinity of the major diverge, an existing fourth-lane of I-91 northbound will be extended approximately 4,600 feet north from its current lane drop at Interchange 27 – Brainard Road/Airport Road to the new ramp. This widening will necessitate the reconstruction of the off-ramps at Interchanges 27 and 28.

In addition, in order to provide for the two-lane ramp from I-91 northbound to State Route 5/15 northbound, the Charter Oak Bridge will be restriped to provide four-lanes of travel across the existing bridge structure. One lane will then be dropped at Interchange 90 - State Route 2/Main Street (Route 5), East Hartford exit and the remaining three lanes will be continued north to a right-lane drop just north of the exit at Interchange 91 - Silver Lane. This will necessitate ramp reconstruction on State Route 5/15 northbound at Interchange 90 - State Route 2/Main Street (Route 5) and the off-ramp at Interchange 91 – Silver Lane. Figure 2A below depict the proposed improvements/changes along I-91 northbound while Figure 2B below depicts the proposed improvements on State Route 5/15 northbound.

Construction on the project is anticipated to begin in April 2019 and to be completed by November 2022. The project is anticipated to be constructed in four (4) stages with the first stage having three (3) sub-stages (A, B and C). Each stage is described in Appendix A.

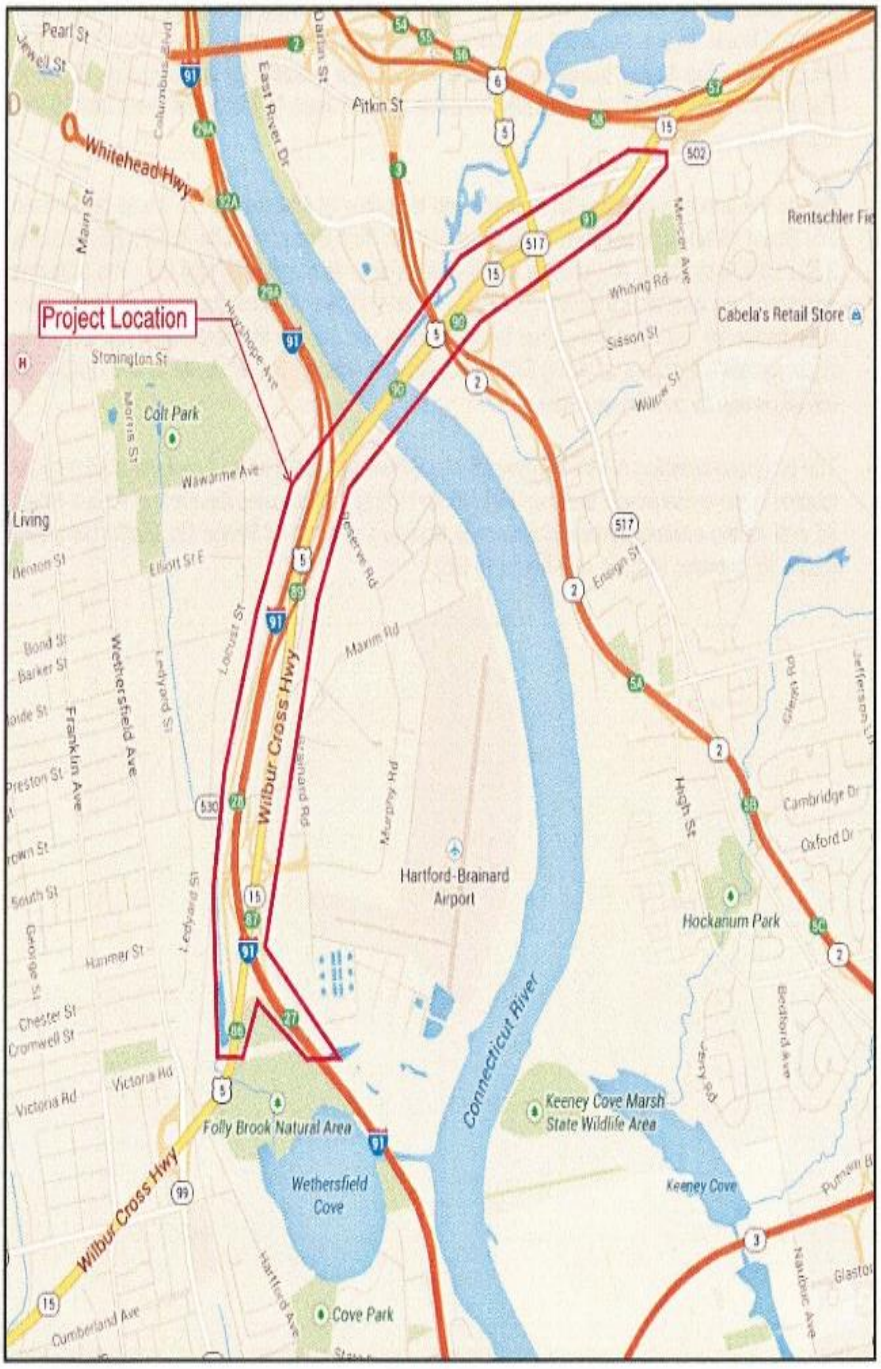


Figure 1 – Project Location Map

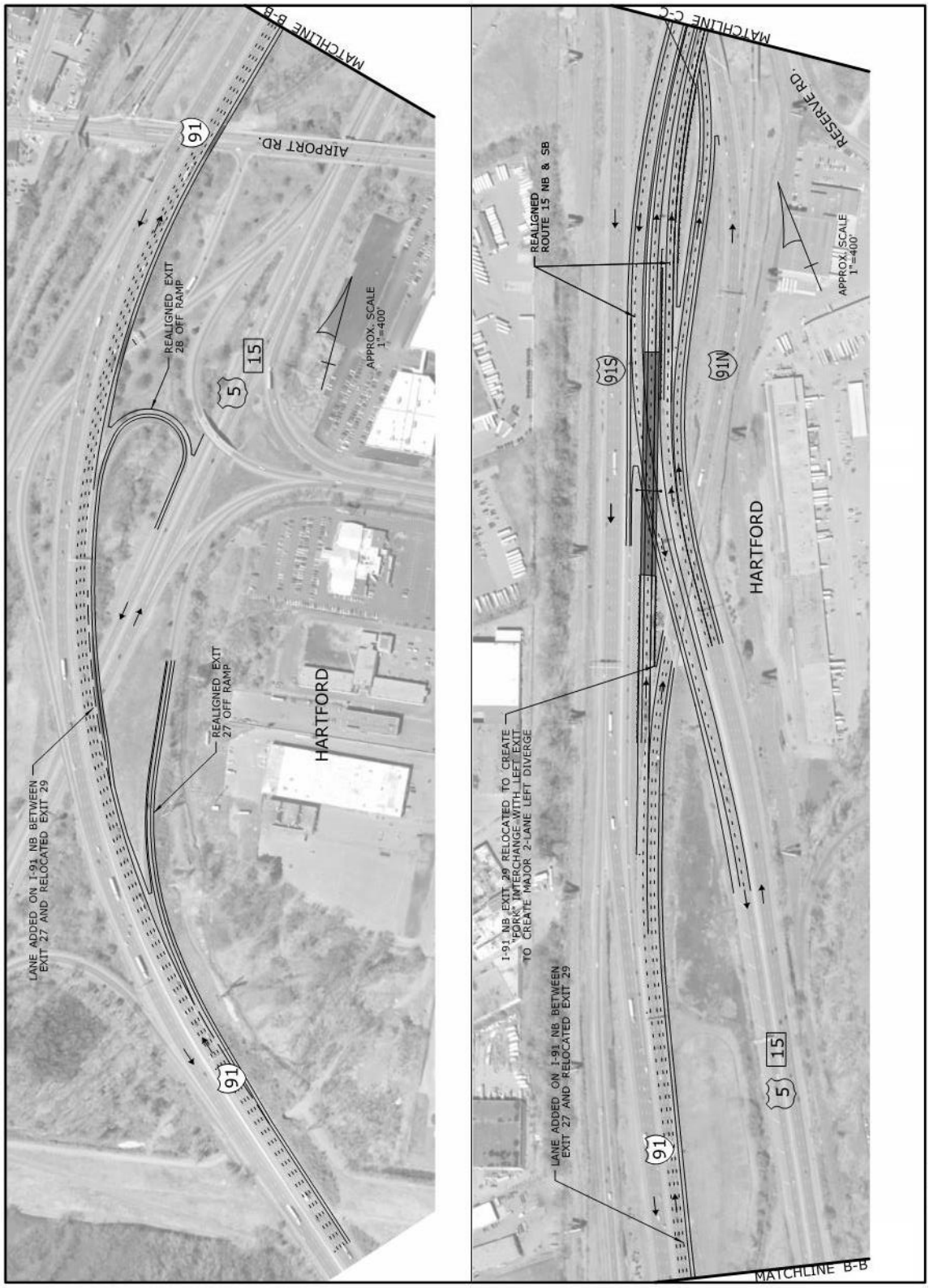


Figure 2A – Proposed I-91 NB Improvements

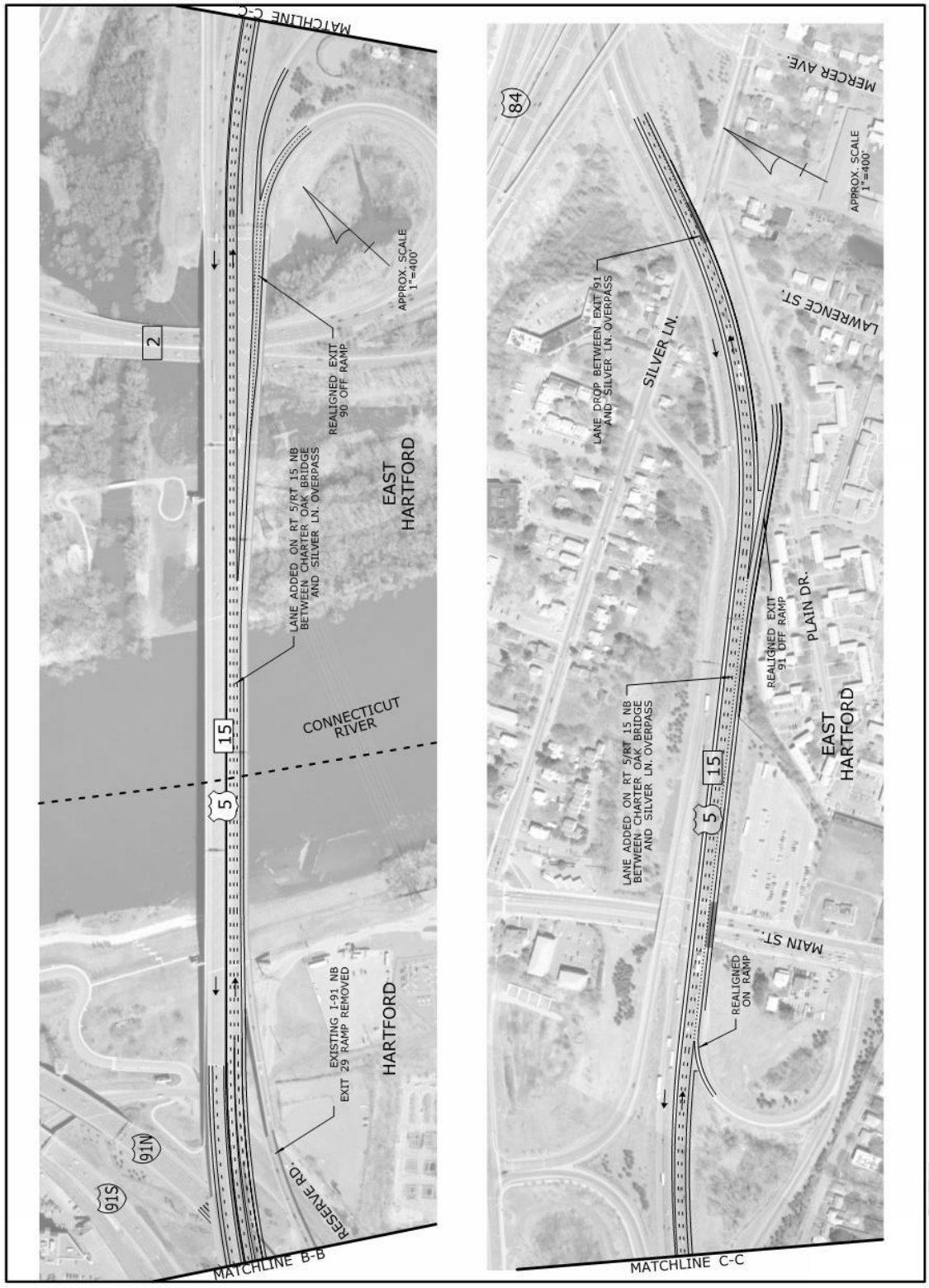


Figure 2B – Proposed Route 5/15 NB Improvements

III. TMP Team – Roles & Responsibilities

This TMP encompasses a wide variety of impacts, disciplines, and activities. Selecting, refining, and implementing this far-ranging plan requires an interdisciplinary team approach. Numerous technical and functional disciplines and organizations, each with relevant expertise and domains of responsibility, collaborated in the preparation of this TMP. Similarly, implementation will be carried out by numerous Department units and external partners. CTDOT Consultant Design has overall responsibility for preparing the TMP and CTDOT Construction will have the primary implementation role. Specific information on the roles of various units and organizations is provided below.

Construction Contactor – By definition, the Contractor fulfills the specified contract requirements. Intentionally, some aspects of contract documents are very prescriptive and others are more general or qualitative, which allows for a certain level of interpretation and flexibility. Bidder/Contractor flexibility is intended to harness innovation and efficiencies. Unfortunately, qualitative and non-explicit specifications can also yield marginal results or performance which cannot be easily redressed. The Temporary Traffic Control (TTC) Plan will be implemented primarily through construction contract provisions. The methods and duration of specific construction operations and the associated transportation impacts are governed largely by the Contractor, within the flexibility of the contract provisions. Contractor cooperation is essential to attaining the agency-owner objectives. Through special provision, the Department will invite and encourage the development of a cohesive CTDOT/Contractor partnership. If formed, the partnership will pursue reciprocal goals. Based on past experience, partnership goals often include those related to work zones (e.g., timely completion, traveler and worker safety). In addition to the lead role for physically shaping all aspects of the work zone and executing construction operations, the Contractor makes other contributions to the TMP. An effective public information program depends on credible information regarding construction operations such as intermittent closures and stage changes. The Contractor develops most of this information. Contractor cooperation and commitment to delivering useful information for packaging and dissemination is essential to success.

Consulting Engineer – The consulting engineers for this project are CME Associates, Inc. The consulting engineer developed or assembled nearly all of the contract documents, including Maintenance and Protection of Traffic (M&PT) provisions. For this project, the consulting engineers designed all infrastructure elements (e.g., bridges, pavements, traffic control) and prepared all stage construction, the TTC Plan and numerous work zone related special provisions. Hence, a single organization is responsible for designing the improvements and the corresponding work zones. The consulting engineer will be available to support the Department during construction, especially in situations requiring detailed familiarity of design decisions and design modification. Consulting engineer assistance may be needed during TTC Plan implementation.

CTDOT Communications - The Office of Communications is responsible for the Department's news and information. As it relates to this project, CTDOT Communications will review/approve, release and post project-related information. Draft news releases will be initiated at the project level and advance through a review process within CTDOT Construction.

Press releases will be available and disseminated through various media as described in the Public Outreach/Public Information component.

CTDOT Construction – Award of the construction contract demarks a transfer of principal responsibility between the Department units, from Consultant Design to Construction. In the context of this document, CTDOT Construction encompasses several entities that specialize in construction-related activities including the Office of Construction (located in Newington), District 1 Construction (located in Rocky Hill) and consultant inspection personnel. The consultant inspection team is headed by a resident engineer, who is the principal fulltime, on-site contract administrator and point of contact with District 1 Construction. For simplicity and despite their distinctive roles, these groups (i.e., Office of Construction, District 1 Construction, consultant resident engineer and inspection staff) are referred to as CTDOT Construction.

CTDOT Construction will administer the construction contract on behalf of the state. Attaining compliance with the TTC Plan is an inherent part of this role. As the Department unit that deals directly with the Contractor and the one nearest execution of the work, numerous other roles are also assigned to CTDOT Construction, including overall responsibility for monitoring the TMP. This will involve observing and documenting various conditions (e.g., TTC patterns, recurring conflicts, and device conditions), events (e.g., incidents, and Contractor interactions) and performance data. CTDOT Construction will interface with abutting property owners, elected officials, emergency responders, municipal officials, State Police, transit officials and individual members of the public regarding TMP and other issues. CTDOT Construction will access, review and analyze work zone safety and monitor work zone operational measures (e.g., queue length, delay). CTDOT Construction will coordinate and work closely with CTDOT Communications on the preparation, release and dissemination of public information.

CTDOT Consultant Design – The Consultant Design Division has primary responsibility for the development of major, engineered design projects. Consultant Design is the lead administrative unit for the Department's consulting engineer contracts including general responsibility for coordinating pre-construction technical activities and reviews within CTDOT. Consultant Design is a cross-cutting (rather than single discipline) unit. Consultant Design was the lead unit in preparing this TMP. Consultant Design will support implementation of the TMP by CTDOT Construction, principally in the areas of public information. Upon a request from CTDOT Construction, Consultant Design will participate in public information meetings and help prepare information pieces and responses to inquiries.

CTDOT Highway Operations/State Farm Safety Patrol – CTDOT's Highway Operations unit maintains and manages the state's Real-Time System Management Information Program, the overall Incident Management Program and the Advanced Traffic Management Program. Highway Operations staff manage incidents including contingency plans for significant unexpected events and incidents like inclement weather and road closures. The CTDOT State Farm Safety Patrol Program (formerly Connecticut Highway Assistance Motorist Program - CHAMP) is operated by the Department and provides service throughout the Route I-91, Route I-84 and Route 5/15 portion of the construction. Services are described under the Incident Management heading of the Transportation Operations component. No adjustments of the service are planned.

CTDOT Traffic Engineering – Policy development and project-level review of traffic control devices, including TTC devices, are within the domain of CTDOT Traffic Engineering. The project M&PT will be reviewed by CTDOT Traffic Engineering Division as part of the normal design process prior to advertising. CTDOT Traffic Engineering also provides TTC-related construction consultation.

Partners – This category includes non-CTDOT organizations that provide specialized supporting contributions. The consulting engineer, Contractor, and State Police roles are outlined elsewhere and are not included in this category.

Public Safety/State Police – Visible police presence is the most effective means of reducing work zone speeds. Visible police also support compliance with other TTC measures such as lane-use restrictions and merging. Further, certain operations including equipment and material movements involve short-term TTC alterations that are best implemented with assistance by police and/or police vehicles. For these reasons, State Police are routinely used on CTDOT freeway projects. For this project, State Police will be used in conjunction with I-91, I-84 and State Route 5/15 work. The conditions, protocols and administrative procedures associated with State Police assignments to CTDOT construction projects are included with a bi-agency Memorandum of Understanding (MOU). I-91, I-84 and State Route 5/15 are also part of a routine State Police patrol. If non-compliance with work zone traffic devices (e.g., speed limits) is determined to jeopardize worker or motorist or pedestrian safety, CTDOT Construction will request work zone enforcement by the appropriate police agency, depending on location. Police on routine patrol, those assigned to the project and State Farm Safety Patrol Program patrols are incident management assets.

For each major activity, a single unit is designated as having lead responsibility. However, a single unit does not typically have all the expertise and resources to independently perform these activities; support and cooperation from other units is usually needed. Support responsibility may involve advance review, collaborative development and problem solving or on-call expertise during implementation. Table 1 below summarizes TMP roles and responsibilities, while Table 2 identifies the individuals responsible for the roles.

Table 1: Overview of TMP responsibilities by organization

Unit or Organization	Impact Assessment	TMP Component						Monitoring
		TTC		TO		PO/PI		
		Prep	Imp	Prep	Imp	Prep	Imp	
Construction Contactor			1				2	
Consulting Engineer		1					2	
CTDOT Consultant Design	1	2		1		1	2	
CTDOT Communications						2	1	
CTDOT Construction	2	2	2		1		2	1
CTDOT Highway Operations					2			
CTDOT Highway Operations					2		2	2
CTDOT Traffic Engineering		2	2					
Partners (e.g., TMOs, other consultants & contractors)					2	2	2	2
Public Safety/State Police			2		2			

1 = Primary responsibility, 2 = Support responsibility, Prep = Prepare TMP component, Imp = Implement TMP component

Table 2: Overview of TMP responsibilities by organization.

TMP Development Managers	
CTDOT	**Consultant**
Name/Title: *Brett Stoeffler*	**Name/Title:** *Jay Koolis*
Unit: *Traffic Engineering*	**Unit:** *CME Engineering*
Phone: *860-594-2758*	**Phone:** *860-290-4100, ext. 1147*
Email: *Brett.Stoeffler@ct.gov*	**Email:** *jkoolis@cmeengineering.com*
Roles and Responsibilities: *Manage and update TMP.*	

TMP Implementation/Monitoring Managers	
CTDOT	**Consultant**
Name/Title: *Meredith Andrews*	**Name/Title:** *Robert Talbot*
Unit: *Consultant Design*	**Unit:** *CME Engineering*
Phone: *860-594-3224*	**Phone:** *860-290-4100, ext. 1154*
Email: *Meredith.Andrews@ct.gov*	**Email:** *rtalbot@cmeengineering.com*
Roles and Responsibilities: *Oversee development and review TMP*	

TMP Implementation Task Leaders	
CTDOT	**Consultant**
Name/Title: *Brett Stoeffler*	**Name/Title:** *Jay Koolis*
Unit: *Traffic Engineering*	**Unit:** *CME Engineering*
Phone: *860-594-2758*	**Phone:** *860-290-4100, ext. 1147*
Email: *Brett.Stoeffler@ct.gov*	**Email:** *jkoolis@cmeengineering.com*
Roles and Responsibilities: *Assure compliance during construction*	

Public Information Officer	
CTDOT	**Consultant**
Name/Title: *Judd Everhart, Director of Communications*	**Name/Title:** *Kelsey Morander, Marketing & Public Relations Specialist*
Unit: *Office of Communications*	**Unit:** *CME Engineering*
Phone: *860-594-3062*	**Phone:** *860-290-4100, ext. 1136*
Email: *Judd.Everhart@ct.gov*	**Email:** *kmorander@cmeengineering.com*
Roles and Responsibilities: *Provide public information and updates*	

Table 2: Overview of TMP responsibilities by organization (continued).

CTDOT Highway Operations Service Contacts	
Highway Operations Engineering	**Newington Operations Center Staff**
Name/Title: *John Korte/Robert Kennedy*	**Name/Title:** *To be determined*
Unit:	**Unit:**
Phone: *860-594-3459/860-594-3458*	**Phone:** *860-594-3447*
Email: *john.korte@ct.gov/robert.kennedy@ct.gov*	**Email:** *DOT.HOC@ct.gov*
Roles and Responsibilities: *Incident management*	

State Police Service Contacts	
CT State Police – Troop H (Hartford)	
Name/Title: *To be determined*	**Name/Title:**
Unit:	**Unit:**
Phone: *800-968-0664, 860-534-1000*	**Phone:**
Email:	**Email:**
Roles and Responsibilities: *Emergency response*	

Hartford Emergency Service Contacts	
Fire and Emergency Medical Services (FEMS)	**Police Department (PD)**
Name/Title: *Reginald Freeman, Fire Chief*	**Name/Title:** *Brian J. Foley, Deputy Chief*
Unit: *Hartford Fire Department*	**Unit:** *Public Information – Communications & Media*
Phone: *860-757-4500*	**Phone:** *860-757-4463*
Email:	**Email:** *Brian.Foley@hartford.gov*
Roles and Responsibilities: *Emergency response in Hartford*	

East Hartford Emergency Service Contacts	
Fire and Emergency Medical Services (FEMS)	**Police Department (PD)**
Name/Title: *John Oates, Fire Chief*	**Name/Title:** *Scott Sansom, Chief of Police*
Unit: *East Hartford Fire Department*	**Unit:** *East Hartford Police Department*
Phone: *860-291-7403*	**Phone:** *860-528-4401*
Email:	**Email:**
Roles and Responsibilities: *Emergency response in East Hartford*	

IV. Preliminary Work Zone Impact Assessment

Transportation impacts emanate from work zones as normal traffic operations are disrupted. A qualitative assessment of impacts was conducted based on project context, scope and selected strategies. Previous relevant experience, interdisciplinary reviews and consultation with local officials were employed to gauge anticipated impacts. In some cases, discretion was employed to essentially "draw a line" between tolerable and unacceptable impacts. These judgments are the basis for selecting fundamental work zone strategies (e.g., minimum number of lanes required at a particular day/time). This section outlines various categories of impacts and mitigation measures.

User Safety – Work zones represent an incremental elevation in motorist risk. Work zones can also disrupt other travel (e.g., bicyclists, pedestrian) patterns. Despite extensive research, the specific factors that elevate accident risk within work zones are uncertain. Consequently, reliance was placed on subjective knowledge and institutional processes (e.g., review by the Division of Traffic Engineering, use of typical installations, adherence to highway safety principles) to identify and mitigate risk factors. For example, the concept of "positive guidance" was employed to establish easy-to-follow temporary travel paths. Also, roadside safety principles were used to create separation (e.g., distance and/or barrier) between unavoidable roadside hazards and active travel lanes. Based on traffic volumes, composition (percent of heavy vehicles) and operating speeds, I-91 NB, I-84 EB and State Route 5/15 NB mainline and ramps are the elements with the greatest potential for adverse safety experience. Surface street speeds are lower than those on I-91, State Route 5/15 and I-84; however, surface streets have inherently higher levels of conflict (e.g., at-grade intersections, driveways, diverse user groups). Therefore, at-grade facilities also warrant safety evaluation. Surface street locations with high-hazard potential, such as bridge reconstruction sites, will be closed to traffic with barricades. Signing, delineation and traffic directors will be employed to reduce the probability of errant vehicles and conflicts.

Worker Safety – National statistics indicate that highway construction workers have substantially higher work-related injury and death rates than the general population of construction workers. Some worker risks can be mitigated by programmatic and project-level measures. Driver awareness, positive guidance, protective clothing and positive protection strategies are included in this project. These concepts are implemented primarily through TTC provisions (e.g., TPCBC layout, device design, and specifications related to flagger training and safety garments).

Emergency Services – The work zone will affect but not degrade emergency medical, law enforcement and fire service responses. I-91 NB, I-84 EB and State Route 5/15 NB and the surrounding streets will remain open throughout the project, except for infrequent, short-duration closures and the temporary closure of I-91 NB Exit 28 for construction. Emergency responses using these facilities will not be significantly affected. The planned overpass-construction detours will require temporary adjustment of patrol and response routing but add very little travel distance. However, attempting to use a closed road could cost valuable response time. Therefore, advance notification of implementing and revising detour routes will be provided.

Transit Service – The work zone will affect fixed-route bus service in the Hartford metropolitan area. CT *Transit* operates thirteen (13) local, express and CT*fastrak* bus routes that use or cross the highways within the limits of the project. They include:

- Route 45 - Berlin Turnpike Flyer (Route 5/15 to I-91)
- Route 55 – Middletown (part-time route, Route 5/15 & I-91)
- Route 59 – Locust Street (Airport Road)
- Route 83 – Silver Lane (Silver Lane)
- Route 87 – Brewer Street (Main Street)
- Route 95 – Glastonbury (Main Street)
- Route 906 – Cromwell Express (I-91)
- Route 907 – Newington Express (Route 5/15)
- Route 910 – Rocky Hill - Century Hills Express (I-91)
- Route 919 – Meriden Express (I-91)
- Route 921 – Middletown - Old Saybrook Express (I-91)
- Route 950 – New Haven/Hartford Express (I-91, Route 5/15, Exit 28)
- CTfastrak Route 121 – Manchester Community College/Hartford/UConn Health (Silver Lane)

The proposed project will maintain traffic flow through the construction zone, except for the proposed temporary closure of I-91 Northbound Off-Ramp at Interchange 28. This temporary ramp closure will impact buses on CT *Transit* Bus Route 950 – New Haven/Hartford Express which uses Exit 28 to access a stop at the commuter lot on Wolcott Hill Road in Wethersfield. A detour for this ramp is being established which, while causing a possible delay to the bus schedule, should accommodate continued bus service for this route. All other bus routes identified can maintain their routes, however they may experience minor delays due to construction zones.

Connectivity and Traffic Operations – Except for intermittent, short-duration closures, I-91 NB, I-84 EB and State Route 5/15 NB will be open throughout the project meaning there will be no detours of mainline I-91 NB, I-84 EB or State Route 5/15 NB through the project area. The effects on traffic operations can be expressed using measures such as delay, user cost or queue length. However, available quantitative estimating techniques and tools have not proven consistently accurate across the broad range of project applications. Therefore, this impact assessment is based primarily on institutional knowledge and previous experience with similar facilities. Construction will affect the mainline and ramps within the project area. In addition, traffic on the crossing streets that are being reconstructed will be affected. The TTC Plans and special provisions identify the required ramp travel way geometry and periods of permissible deviation.

Traffic operation effects are related to work zone capacity reduction. The number of mainline travel lanes open to traffic will vary. The minimum number of directional lanes open to traffic is specified as one, two, or three, depending on the day of the week and time of day. Separate schedules are provided for the northbound and eastbound directions. Although the existing number of directional travel lanes (i.e., two) will be maintained during peak periods, cross section dimensions will be reduced. The mainline work zone typical section consists of 11-foot

travel lanes and two-foot wide left and right shoulders; each shoulder is flanked by temporary concrete barrier curb. The capacity of this cross section is less than existing. Further capacity reductions may result from visible enforcement presence and construction activity.

The maximum height and width of vehicles that may be operated on Connecticut highways, without a permit, are 13 feet-6 inches and 8 feet-6 inches, respectively. The alignment, cross section (including temporary concrete barrier curb) and temporary construction support systems (e.g., false work, stays, sign supports) are designed and specified to accommodate (i.e., provide adequate horizontal and vertical clearances for) vehicles of these dimensions.

Based on previously completed Interstate projects, the impact of the selected work zone strategy on I-91 NB, I-84 EB and State Route 5/15 NB operations is not expected to be intolerable. However, the actual effects (e.g., delay, queue lengths) will be monitored during construction and, if congestion reaches an unacceptable level, additional mitigation measures will be investigated. These include, but are not limited to, excessive queuing and increased accident occurrences.

Traffic Incident Occurrence and Response – Traffic incidents within the work zone are inevitable and work zone conditions (e.g., unusual construction operations) may occasionally become incidents. Further, work zone conditions will probably magnify the effect of some incidents, especially along I-91 NB, I-84 EB and State Route 5/15 NB where the work zone typical section provides for narrow (i.e., two-foot) shoulders. This TTC will also include "Pull-Off" areas for disabled vehicles. These accommodations will allow for unimpeded travel in the adjacent lane. These pull off areas will help mitigate the negative impact of incidents, particularly along I-91 NB, I-84 EB and State Route 5/15 NB. Even with the "Pull-Off" accommodations, efforts should still remain focused on the importance of expedient incident detection and response (i.e., clearance and traffic management). An established, permanent, multi-function incident management program will be utilized, as described in Transportation Operations.

Street-abutter Access – More than 50 properties abut and connect to the affected roads running parallel to I-91 NB, I-84 EB and State Route 5/15 NB within the project limits. These facilities are being widened and/or re-profiled; therefore some access points may require adjustment. The work zone impacts on local access will be mitigated by the inclusion of a special provision, as summarized in a subsequent section (TTC Plan).

The TMP includes mitigation measures for the impacts described in this section.

V. Existing Conditions

I-91 in the vicinity of the project is a six-lane (3 lanes each direction) limited access expressway built in 1964. It is classified as Urban Interstate in the *CTDOT Highway Log* and as an Urban Principal Arterial – Interstate on CTDOT's functional classification maps. It is on the National Highway System (NHS) and is part of the Strategic Highway Network (STRAHNET). The highway has a posted speed limit of 55 mile-per-hour both directions and a 2012 Average Daily Traffic volume of 122,100 vehicles-per-day in the vicinity of the Airport Road underpass. Approximately 11% of the I-91 vehicles are classified as trucks.

State Route 5/15 within the limits of the project is four-lane (two lanes in each direction) limited access highway, originally built in 1942 as the Wilbur Cross Highway. It is classified as Urban Principal Arterial Other Expressway according to CTDOT's functional classification maps but according to discussions with Department staff, State Route 5/15 in the vicinity of the project it is considered a freeway. State Route 5/15 is on the National Highway System (NHS) but is not part of the Strategic Highway Network (STRAHNET). State Route 5/15 northbound has a posted speed limit of 55 mph within the limits of the project. The southbound lanes have a posted speed limit of 50 mph for approximately 1.6 miles from approximately the Interchange 89 Off-Ramp to I-91 Southbound to the Interchange 87 On-Ramp from Airport Road/I-91 Southbound. Outside of this area, State Route 5/15 has a posted speed limit of 55 mph. State Route 5/15 has a 2012 Average Daily Traffic volume of 36,000 vehicles-per-day in the vicinity of the I-91 overpass; 76,000 vehicles-per-day on the Charter Oak Bridge and 68,800 vehicles-per-day between Interchange 90 – Main Street and Interchange 91 – Silver Lane.

The project will address safety concerns associated with traffic congestion and operational failures at the existing Interchange 29 off-ramp on I-91 northbound. Currently the single-lane ramp has a steep vertical grade (+5%) and near capacity traffic volumes (1,790 vehicles in the evening peak hour) that include a significant percentage of heavy vehicles (approximately 11%). In addition, once ramp traffic reaches the top of the vertical grade, traffic must weave across traffic on State Route 5/15 northbound destined for an exit to State Route 2/Main Street (Interchange 90) on the east end of the bridge in East Hartford. Combined, these factors cause a significant delay in traffic on I-91 northbound, higher than expected crash rates and the queuing of traffic onto the mainline of the highway.

The existing traffic queues extend onto I-91 northbound 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 south to the vicinity of the Wethersfield/Hartford town line and the I-91 Bridge over Wethersfield Cove. From visual observations it appears that these queues are not only occurring during normal peak hours of traffic (weekdays 7:00 to 9:00 AM and 4:00 to 6:00 PM) but outside those hours as well. The safety issues are compounded by drivers that routinely cut into the right-lane queue from the center lane, which impedes traffic flow in that and the left lane, further increasing congestion on I-91 in this area.

VI. Operational Analysis

Safety Analysis

CTDOT collects and analyzes crash information on all state roadways and complies 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).

[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."

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[1] appear in Figure 10.

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 resulted in 1 fatality and 178 injuries.

State Route 5/15 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 State 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.

Traffic Analysis

Traffic volumes for the project were obtained from 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. These volumes are depicted in Figure 3 below.

Analysis of the volumes were conducted using methodology outlined in the *2010 Highway Capacity Manual* developed by the Transportation Research Board (TRB) and replicated in computer software entitled *Highway Capacity Software 2010 (HCS 2010), Release 6.65.* These analyses provide an operating condition, or Level-of-Service (LOS), using a grading scale similar to that used in most schools with LOS A being the highest LOS (a generally free-flow traffic condition) while LOS F is the lowest (a fully saturated traffic flow condition). In Connecticut, LOS D is commonly considered to be an "acceptable" LOS while LOS C or better is considered to be "desirable". LOS E is considered to be "undesirable". Analyses were conducted for each freeway segment, ramp junction and weave area along the corridor within the project limits. The criteria for each LOS is based on density of traffic in terms of passenger cars per mile per lane (pc/mi/ln).

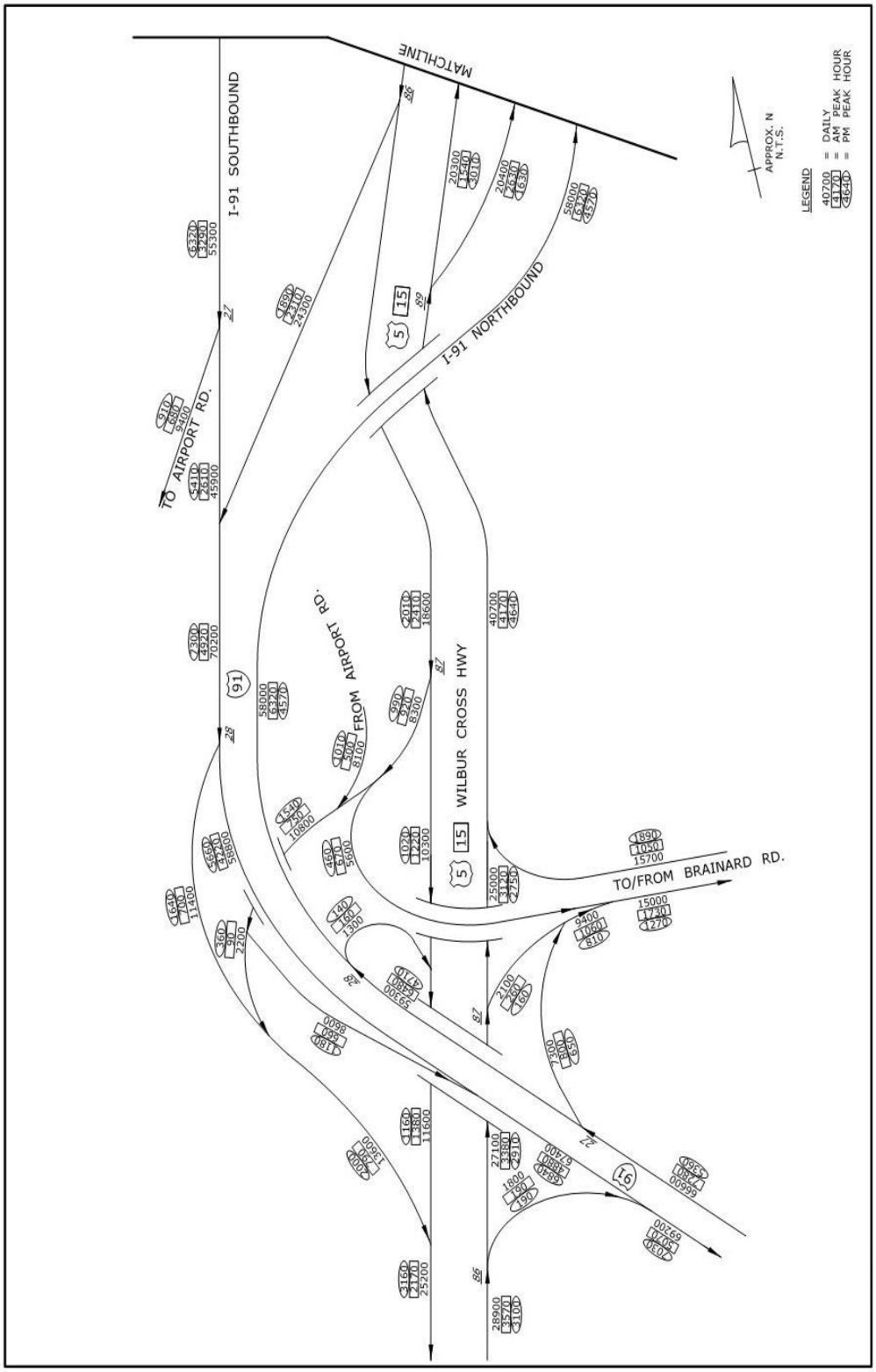


Figure 3A – 2015 Traffic Volumes

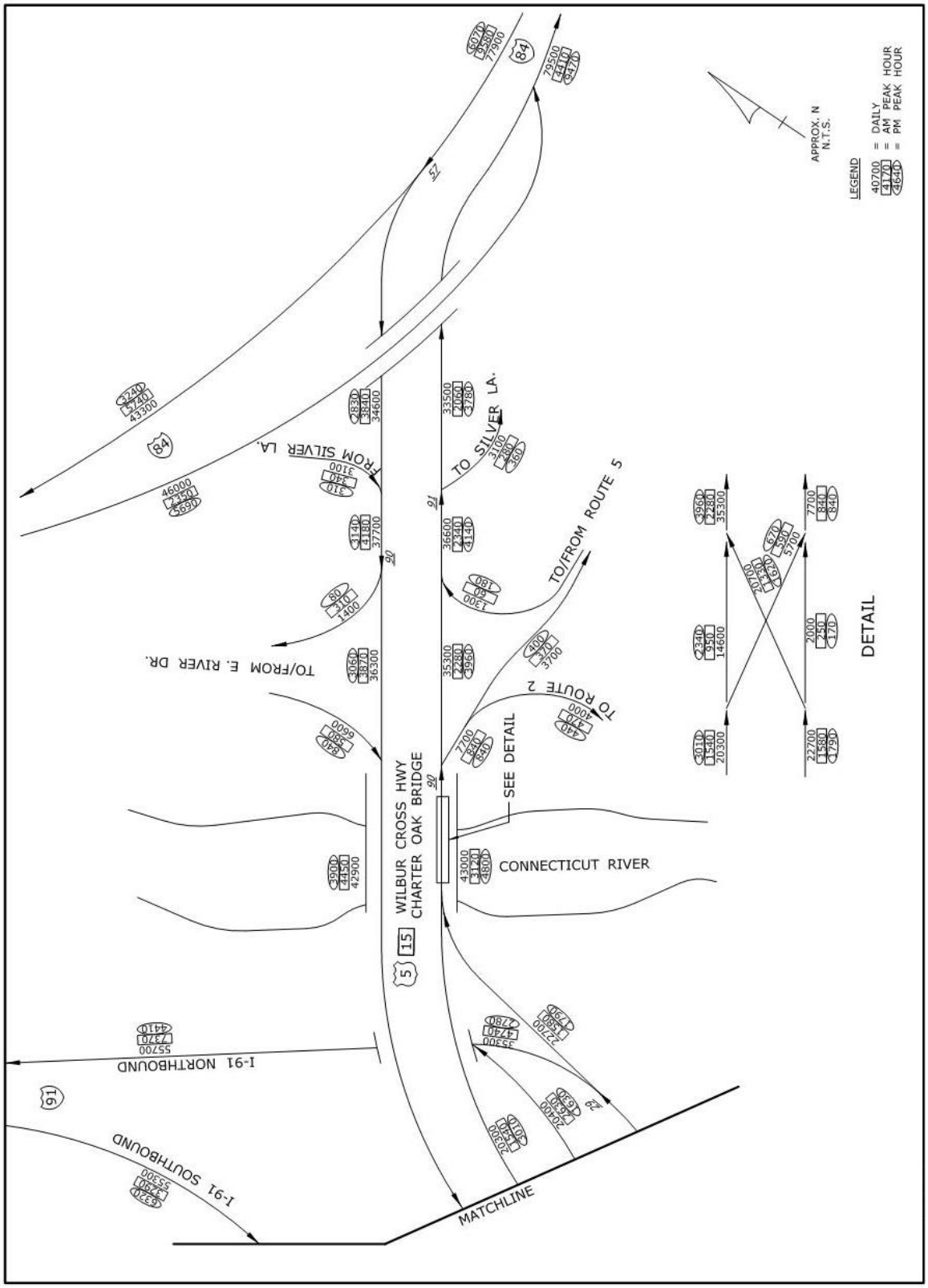


Figure 3B – 2015 Traffic Volumes

Table 3 below identifies the LOS criteria for freeway segments while Table 4 identifies criteria for ramp merges and diverges. Table 5 provides the parameters for LOS within weave segments on freeways.

Table 3 - LOS Criteria for Freeway Segments*		
LOS	Density (pc/mi/ln)	Comments
A	≤ 11	Free-flow speed operations with unimpeded maneuvers
B	> 11-18	Reasonably free-flow speed operations with slightly restricted maneuvers
C	> 18-26	Speeds near free-flow speeds with noticeably restricted maneuvers
D	> 26-35	Speeds begin to decline with seriously limited ability to maneuver
E	> 35-45	Operation at capacity with little room to maneuver
F	>45	Demand exceeds capacity with breakdown or unstable flow

Table 4 - LOS Criteria for Ramp Merge/Diverge*		
LOS	Density (pc/mi/ln)	Comments
A	≤ 10	Unrestricted operations
B	> 10-20	Merging & diverging maneuvers noticeable
C	> 20-28	Influence area speeds begin to decline
D	> 28-35	Influence area turbulence becomes intrusive
E	> 35	Turbulence felt by virtually all drivers
F	Demand exceeds capacity	Ramp & freeway queues form

Table 5 - LOS Criteria for Weaving Segments*		
	Density (pc/mi/ln)	
LOS	Freeway Weaves	Multilane or CD Weaves
A	0-10	0-12
B	> 10-20	> 12-24
C	> 20-28	> 24-32
D	> 28-35	> 32-36
E	> 35	> 36
F	Demand exceeds capacity	Demand exceeds capacity

** 2010 Highway Capacity Manual*

Capacity analyses indicate that during the AM peak hour of traffic that I-91 Northbound from the Interchange 27 Off-Ramp – Brainard Road to Interchange 28 Off-Ramp – State Route 5/15 Southbound operates at LOS F and I-91 Northbound from Interchange 28 Off-Ramp – State Route 5/15 Southbound to Interchange 29 Off-Ramp – State Route 5/15 Northbound operates at LOS E. All three (3) of the ramps on I-91 northbound; Interchange 27 Off-Ramp to Brainard Road, Interchange 28 Off-Ramp to State Route 5/15 Southbound and Interchange 29 Off-Ramp to State Route 5/15 Northbound, operate at LOS F during the morning peak hour of traffic. During the PM peak hour, all of the I-91 northbound segments and ramps were found to operate at LOS D or better, except for the ramp from I-91 Northbound at Interchange 29 to State Route 5/15 Northbound which operates at LOS F.

State Route 5/15 Northbound during the AM peak hour of traffic operates at LOS D or better which is considered to be acceptable. During the PM peak hour results indicate that one (1) of the nine (9) freeway segments, State Route 5/15 Northbound between the Interchange 90 Off-Ramp – State Route 2/Main Street and Interchange 90 On-Ramp – Main Street, operates at an unacceptable LOS (LOS E) while the remaining eight (8) freeway segments operate at acceptable LOS (LOS D or better). Of the 3 ramps analyzed during the AM peak hour, the ramp from State Route 5/15 Northbound Interchange 86 Off-Ramp to I-91 Southbound operates at LOS E. The other ramps operate at acceptable LOS (D or better). During the PM peak hour only

the State Route 5/15 Northbound Interchange 87 On-Ramp from Brainard Road operates unsatisfactory with a LOS of F. The other ramps operate at acceptable LOS (D or better).

Three (3) weave segments on State Route 5/15 Northbound were also analyzed. During both the AM and PM peak hour two (2) of the weave segments, Brainard Road On-Ramp to I-91 Northbound Off-Ramp and I-91 Northbound On-Ramp to State Route 2/Main Street Off-Ramp, operate at LOS F while the third (between Main Street On-Ramp to Silver Lane Off-Ramp) operates at a LOS B during the AM peak hour and LOS C during the PM peak hour. The results for I-84 Eastbound indicate that the segment from Int. 57 - State Route 15 Northbound On-Ramp to Int. 58 - Roberts Street On-Ramp operates at a LOS B during the AM peak and at a LOS E during the PM peak.

VII. Work Zone Impact Management Strategies

This TMP was developed to accommodate the required construction operations and manage work zone effects on transportation and transportation-dependent services and facilities. Strategies were selected to mitigate (i.e., reduce or eliminate) access, mobility and safety impacts. This section outlines the general approach used to select transportation management strategies. The work zone will directly impact four facility types (i.e., Route I-91 directional roadways and ramps, arterials and urban local roads). Overall TMP development and management strategy selection were guided by the objectives set forth in CTDOT's policy, dialogue with project stakeholders and prevailing standards, policies and practices including relevant provisions of the *Manual on Uniform Traffic Control* (MUTCD) and *CTDOT Highway Design Manual*, particularly Chapter 14 - *Maintenance and Protection of Traffic Through Construction Zones*.

Negative transportation impacts of any scale or duration are undesirable but, as a practical matter, some impacts cannot be reasonably avoided. TMP development is an iterative, rather than linear, process. Revisions are inevitable as the consequences (e.g., safety, operations, and cost) of tentative decisions and options become known. Certain basic strategy decisions were made on the basis of experience and qualitative judgment. These decisions, mostly related to temporary traffic control, were subjected to further review as outlined in the previous (Work Zone Impacts Assessment) section. Following the selection and review of basic strategies, supporting and mitigating measures were identified. The rationale for the basic traffic management strategies for individual facilities follows.

As the backbone of vehicular traffic through central Connecticut, I-91 NB, State Route 5/15 NB and I-84 EB within the project area carries an ADT of approximately 66,600, 43,000 and 79,500 vehicles per day respectively, providing for goods movement and journey-to-work and personal travel. This facility cannot accommodate existing, peak-period demand; sustained periods of congestion are routine. Therefore, preserving the current number of I-91 NB and I-84 EB travel lanes during periods of high demand is a core TMP strategy. Through the project area mainline I-91 NB consists of three through travel lanes (i.e., excluding operational lanes and shoulders). Based on the necessities of construction and temporal traffic demand fluctuations, the M&PT includes schedules that define the minimum number of travel lanes (one, two, three), by week, day and time, for each direction of travel. The strategies described above are the foundation

work zone impact management strategies. Using a framework of the three TMP components, subsequent sections identify and elaborate on strategies.

The CTDOT Implementation Plan addresses a number of planned programmatic (rather than project-level) initiatives that will advance the agencies progress toward a more mature work zone management framework. These programmatic initiatives include training, data collection and reporting, data retention and analysis and field monitoring. This TMP does not include any information on those subjects.

Temporary Traffic Control (TTC) Plan

The TTC Plan supports the TMP objectives of efficient transportation and the safety of workers, motorists and other users. The TTC Plan draws heavily on a body of CTDOT knowledge, references and experience, including *HDM* Chapter 14, standard drawings and typical installations, adapted to the project context where appropriate. In practical terms, the following are significant TTC Plan elements:

- Directing mainline I-91 NB, I-84 EB and State Route 5/15 NB traffic onto and along temporary travel lane patterns,
- Identifying exit and entrance ramps and delineating configurations,
- Shielding permanent and temporary roadside hazards, and
- Closing specific street segments (ramp closure detours) and guiding traffic to and along alternative routes.

Nearly all aspects of the TTC Plan are developed during design (preconstruction) and implemented during construction. The TTC Plan will be implemented primarily through the construction contract, by the Contractor, with oversight by CTDOT Construction personnel and inspectors. TTC provisions within the contract documents include plans, standard specifications and special provisions. Key TTC Plan components and elements include:

Stage Construction Plans – identify I-91 NB, I-84 EB and State Route 5/15 NB mainline and ramp work areas, by type (i.e., bridge demolition, temporary pavement, permanent features etc.) for each phase, along with temporary concrete barrier curb, attenuation systems, temporary pavement markings and signs.

M&PT Miscellaneous Details – provide typical construction cross section and inertial barrier layouts.

Detour Plans – depict separate detour routes and identify the corresponding sign locations and legends.

Standard Specifications and Supplement – standard specifications (as supplemented) pertain to all projects, if applicable, unless amended by a special provision. Many standard specifications are relevant to the TTC Plan for this project. The Maintenance and Protection of Traffic standard specification (Section 9.71) covers the most generic requirements, including a requirement that the Contractor “keep the roadway under construction open to traffic for the full length of the project and provide a sufficient number of travel lanes and pedestrian passage

ways to move that traffic ordinarily using the roadway." Additionally, many other standard specifications govern specific TTC Plan features (e.g., temporary traffic control devices, sign materials). The standard specifications are augmented by special provisions.

Special Provisions – numerous recurring and project-specific special provisions cover TTC Plan elements, including the following:

SECTION 1.08 - PROSECUTION AND PROGRESS - describes the TCC in detail and provides a detailed written description of the work to be completed in each Stage of the TTC. This document also contains tables indicating the minimum number of lanes that must remain open during a given time period. This special provision also includes the allowable work hours for the construction. It also includes sections on signing requirements, concrete slab repairs, loop detector installation and other limitations.

(Section 9.71.01) – MAINTENANCE AND PROTECTION OF TRAFFIC– describes the minimum number of lanes, lane width and work periods allowed for the different areas of the project. This special provision also includes sections on the following items:

- *Traffic Signals* – requires the Contractor to keep each traffic signal in the project limits operational at all times during construction in accordance with the Special Provision "Temporary Signalization."
- *Requirements for Winter* – requires the Contractor to schedule a meeting with representatives of the Engineer, Maintenance and Traffic to determine what interim traffic control measures the Contractor must accomplish for the winter to provide safety to the motorist and permit adequate snow removal procedures.
- *Stage Construction* – requires the Contractor to maintain and protect traffic on all project roadways as shown on the Maintenance and Protection of Traffic Plans contained in the contract plans.
- *Commercial and Residential Driveways* – requires the Contractor to maintain access to and egress from all commercial and residential driveways throughout the project limits. The Contractor will be allowed to close said driveways to perform the required work during those periods when the businesses are closed unless permission is granted from the business owner to close the driveway during business hours.
- *Signing Patterns* – requires the Contractor to erect and maintain all signing patterns in accordance with the traffic control plans. Proper distances between advance warning signs and proper taper lengths are mandatory.
- *Signing* – requires the Contractor to maintain all existing overhead and side-mounted signs throughout the project limits during the duration of the project. The Contractor shall temporarily relocate existing signs and sign supports as many times as deemed necessary and install temporary sign supports and foundations if necessary and as directed by the Engineer. Signs that are in conflict shall be removed and/or covered with an opaque material.
- *Interim Pavement Markings – requires* the Contractor to install painted pavement markings, which shall include lane lines (broken lines), shoulder edge lines, stop bars, lane-use arrows and gore markings, on each intermediate course of

bituminous concrete pavement and on any milled surface by the end of the work day/night.

- *Final Pavement Markings* – requires the Contractor to install permanent Pavement Markings at the time of installation of the final course of bituminous concrete pavement.

This special provision includes several other pertinent items that are required of the Contractor during construction.

Payment Provisions – The PS&E will include pay item provisions for implementing the TMP, particularly the TTC Plan. Items are paid for either as lump sum or unit basis. From a construction contract administration perspective, it is easier to implement changes for items covered by individual (unit-based) pay items. Since construction inevitably brings some unanticipated conditions, construction-phase flexibility is needed. Numerous TMP and TTC items are paid for an individual/unit basis, including:

- Temporary Precast Concrete Barrier Curb (TPCBC)
- Relocated TPCBC
- Traffic persons (3 categories)
- Barricade Warning Lights, High Intensity
- Traffic Cone
- Traffic Drum
- Construction Barricade Type III
- Temporary Illumination Unit
- Remote Control Changeable Message Sign
- High Mounted Internally Illuminated Flashing Arrow
- Smart Work Zone Mobile Video Camera/Queue Sensor Trailer
- Smart Work Zone Mobile Video Variable Message Sign/Queue Sensor Trailer
- Smart Work Zone Mobile Video Queue Sensor Trailer
- Temporary Cantilever Sign Support
- Temporary Overhead Sign Support
- Hot-Applied Painted Pavement Markings (4 categories)
- White Epoxy Pavement Markings (3 categories)
- 4 Inch Yellow Epoxy Pavement Markings
- Epoxy Resin Pavement Markings, Symbols and Legends
- Construction Signs – Bright Florescent Sheeting
- Construction Signs – Type III Reflective Sheeting
- Type D Portable Impact Attenuation System
- Temporary Impact Attenuation System Module (5 categories)
- Relocation of Temporary Impact Attenuation System Module (5 categories)
- The TTC Plan includes many other elements of a routine nature, not specifically identified in this document.

Transportation Operations Plan

The Transportation Operations (TO) Plan is a selected set of mitigation strategies based primarily on non-highway-infrastructure systems. Like other TMP elements, the identification of appropriate TO measures is scaled and responsive to project context, including potential impacts, constraints and available resources. The major TO elements are outlined below.

Demand Management – Demand through the project area is largely from single occupant vehicles (SOVs). CTDOT provides ongoing and significant support for SOV reduction programs. CTDOT promotes and subsidizes SOV alternatives including: commuter parking, commuter bus, rail and ride sharing (car- and van-pool formation) programs. Although the number of I-91 NB, I-84 EB and State Route 5/15 NB mainline travel lanes will be maintained during peak periods, capacity will be reduced as a result of other project factors (i.e., additional friction). This incremental impedance will increase the motivation for alternative mode of travel.

CTDOT has developed a comprehensive Transportation Management system to assist in the delivery of travel demand services. CT*rides* delivers transportation demand management solutions that improve mobility, workforce effectiveness and quality of life. Its services are free to commuters. CTDOT encourages the use of transportation alternatives such as carpooling, vanpooling, bus and train travel, bicycling, walking, compressed work weeks and telecommuting. With regard to the project work zone, ongoing CT*rides* demand management programs will accommodate travelers that are inclined to make a change in transportation mode and pattern. Peak-period demand will likely be reduced as a result of the Public Outreach/Public Information program.

Incident Management – Portions of the I-91 NB, I-84 EB and State Route 5/15 project are under video surveillance by an Incident Management System (IMS). Several cameras capture portions of I-91 throughout the work zones, one at each Exit 26, Exit 27 and 29 while State Route 5/15 is monitored by a camera station located on State Route 2 Southbound immediately south of the Charter Oak Bridge. I-84 has a camera located at Exit 57 – State Route 15 which monitors the eastern section of the project limits.

In addition to the IMS, the project will deploy an automated Smart Work Zone (SWZ) system for the duration of the project. The SWZ system includes a series of vehicle trailers equipped with sensors, cameras, variable message signs and communications equipment strategically located throughout the region to monitor areas within and in advance of the project work zone. The SWZ will allow CTDOT operators to monitor roadways and disseminate real-time information to the traveling public and other stakeholders. For this project, a total of 27 SWZ devices will be deployed.

Standard practices include the posting of project information which is accessible from the CTDOT homepage www.ct.gov/dot Travel Resource page that includes links to “Traffic Incidents,” CT Travel Info Map,” and “Traffic Cams.” “CT Travel Info” is an interactive map displaying icons for ongoing active construction projects, roadway incidents, traffic cameras images, and CMS sign displays by location. Additionally, motorists can sign up for e-mail news and traffic alerts. The E-Traffic Alerts are sent via e-mail when there is a traffic incident that will

affect travel in a specified area of the state and the E-News alert sends information on general and construction news (press information) issued by the Department.

Connecticut's State Farm Safety Patrol Program is operated by CTDOT and provides service throughout the mainline I-91 NB portion of the project. Services include pushing disabled vehicles to the shoulder, fuel, changing flat tires and jump starts. Service patrols also react to accidents and notify the State Police, medical, fire and/or other emergency responders. The incident management systems, protocols and interagency coordination in effect prior to the project and outside the work zone limits will be employed for the work zone. The link to the patrol program website is: http://www.ct.gov/dot/cwp/view.asp?a=2094&Q=259404

Police Presence – An active project-level State Police presence is planned. The role, conduct, cost and reimbursement provisions for State Police personnel utilized for traffic control on CTDOT-administered construction projects are covered by a Memorandum of Understanding between CTDOT and Connecticut Department of Public Safety. State Police will be utilized for traffic control on I-91, State Route 5/15 and I-84. State police may also be utilized for traffic control on other state roads (Airport Road, Silver Lane and Main Street). Additionally, State Police may be requested to provide enforcement within a work zone. CTDOT Construction will request work zone enforcement if warranted by observed conditions (e.g., excessive operating speeds). Local police personnel will also be utilized for traffic control.

Continuity of Transit Service – As previously noted, CT *Transit* operates fixed-route commuter and city bus service routes that will be impacted by the proposed project. Construction operations and the associated M&PT will impose direct and indirect impacts to these routes but will remain open to traffic during most of the construction activities. The project does propose to temporarily close the I-91 Northbound Off-Ramp to State Route 5/15 Southbound at Interchange 28 for several months to allow for the reconstruction of the ramp. CT *Transit* Bus Route 950 – New Haven/Hartford Express utilizes the ramp to access a commuter parking lot on Wolcott Hill Road in Wethersfield. These buses however will be rerouted to avoid the closed ramp. CTDOT will work with CT *Transit* to develop a mutually acceptable detour for these buses. Also CTDOT Construction will provide CT *Transit* with two weeks of notice prior to implementing or revising detours.

Continuity of Emergency Services – CTDOT personnel have met with local officials, including the fire and police chiefs, during the course of project development to ensure continuity of emergency services. The scope of the project and planned detours were reviewed. Fire and police input was integrated into the design. Coordination with emergency service providers will continue through completion of design and construction.

Work Zone Safety Meetings – Prior to construction, a meeting will be convened to review traffic control requirements. CTDOT Construction, Contractor and state and local police personnel will participate. Subsequent meetings of similar scope and representation will be held as needed.

Public Outreach/Public Information (PO/PI) Component

The Public Outreach/Public Information (PO/PI) component of the TMP includes both

programmatic and project-level communications strategies. Programmatic measures are intended to create a general awareness of important work zone issues (e.g., motorists and worker safety, legal provisions and sanctions). Project-level measures provide information about a specific work zone to the people and organizations that will be directly affected.

Public involvement and information are scaled to the probable intensity and extent of impacts. The transportation effects resulting from this project work zone are expected to be noticeable but not profound. The overall project PO/PI effort will address transportation effects and other subjects of interest (e.g., nature of improvements, right of way acquisition, and construction schedule). The outreach is being conducted in conformance with CTDOT's "A Guide for Public Outreach," which includes the Department's Public Outreach Policy. The policy and guidance cover the gamut of project development and implementation, including the construction phase. The information presented here will focus on PO/PI activities related to work zone transportation effects and mitigation measures.

Programmatic Work Zone Public Awareness – CTDOT disseminates general work zone safety information (i.e., not related to a specific project) via the work zone safety page of the agency's Web site: http://www.ct.gov/dot/cwp/view.asp?a=1410&q=417232. This page, portrayed in Figure 4, offers a series of work zone advisories including safe driving tips and videos. Additionally, CTDOT produces and broadcasts work zone safety messages as paid commercial radio advertising (funded by the National Highway Traffic Safety Administration).

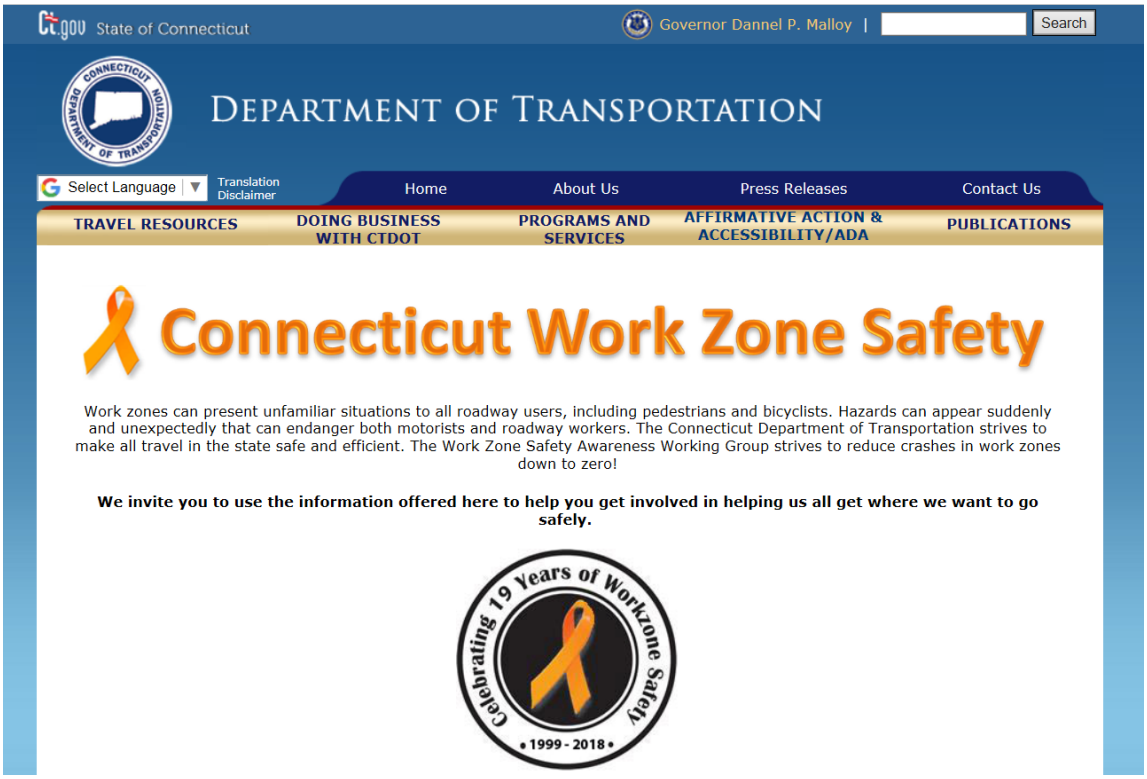


Figure 4 – CTDOT Work Zone Safety Page

Public Information Meetings – This type of forum is routinely conducted during design development and serves a variety of purposes. In the context of work zone safety and mobility, the meeting will provide the public with advance notification of construction-phase conditions and transportation impacts. Residents, major employers, shippers, merchants, event organizers, transportation-dependent service providers, utility owners and emergency responders use the information to coordinate their plans with anticipated work zone conditions. After the project begins, the District will hold quarterly public information meetings during construction. Additional meetings will be held if a major change in the traffic pattern occurs. The meeting agendas and presentations will also include other topics not related to work zones. These meetings have proven beneficial for citizens and as a forum for introductions between construction personnel and stakeholders including merchants, property owners, local officials, and emergency response agencies.

Electronically-Disseminated Project Work Zone Information – News releases will be prepared and disseminated in advance of major, planned work zone developments (e.g., beginning of construction, change in configuration). The CTDOT Construction Manual (Volume 1, Chapter 20) provides a detailed Press Release procedure. A simplified overview of the CTDOT news release procedure, adapted for this project is provided here. News releases will be initiated at the project level. The basic information will be passed on to CTDOT for refinement and development into a draft news release. The draft will be reviewed by CTDOT Construction and CTDOT Communications. Following review and approval, the release will be posted and disseminated. The CTDOT Webpage homepage www.ct.gov/dot includes a link to sign up to receive updates/newsletters by email. An interested party can have these constructed-related news releases delivered automatically by email by subscribing to "E-Traffic Alerts." Virtually all news organizations (i.e., broadcast and print media) subscribe to this service. CTDOT will also distribute work zone related information through its information network, including its Web home page.

Changeable Message Signs – Changeable message signs (CMS) will be utilized to provide real-time information of regional, corridor or location-specific (e.g., interchange, sort segment) relevance. Portable CMS will be provided through the construction contract, located in or near the work zone, and controlled by project personnel.

VIII. Notes

Any additional notes on selected strategies, the TMP in general, or any item requiring special attention for the project can be provided in this section.

IX. TMP Implementation/Monitoring

The TMP will be implemented in the field. To help ensure appropriate implementation, 23 CFR 630 Subpart J §630.1012(e) requires that the State/Agency and the Contractor each designate a trained person at the project level who has the primary responsibility and sufficient authority for implementing the TMP and other safety and mobility aspects of the project.

Monitoring the performance of the TMP during the construction phase is important to establish whether the predicted impacts closely resemble the actual conditions in the field, and whether

the TMP strategies are effective in managing the impacts. TMP monitoring is needed for both oversight and evaluation purposes, such as:

- Monitoring and documenting TMP changes during construction.
- Preparing an evaluation of the TMP, including lessons learned.
- Refining work zone impact analysis processes and models based on outcomes.

TMP monitoring includes details of any specific observational, logging, and/or recording activities conducted during the project for work zone performance measurement purposes. Examples of possible performance measures for TMP monitoring include:

- Volume
- LOS
- Queue length
- Delay
- Travel time
- Number of crashes/incidents
- Incident response and clearance times
- Type and frequency of legitimate complaints received

It is helpful for the TMP Implementation/Monitoring Managers to meet with the Project Manager (to be determined) on a regular basis to discuss and assess the safety and mobility impacts of the project work zone to date. This helps to assess how well the TMP is managing the project impacts, and can help identify and address issues before they become problems. It also provides the opportunity to verify that all key stakeholders and project officials have been receiving timely notifications where required.

X. TMP Review/Approvals

TMPs, and changes to TMPs, must be approved by the Department before they are implemented. As part of this process, many agencies conduct a TMP review, either by a designated individual or a team. A TMP review is particularly important for higher impact projects, and will help with future revisions of the TMP and performance monitoring. The TMP approval is then based on the TMP review.

XI. Revision History / Change Management Process

1. *Draft Transportation Management Plan* issued December 30, 2015
2. *Revised Draft Transportation Management Plan* issued April 26, 2017
3. *Revised Draft Transportation Management Plan* issued December 20, 2017
4. *Revised Draft Transportation Management Plan* issued May 21, 2018
5. *Revised Draft Transportation Management Plan* issued July 9, 2018

XII. List of Acronyms

ADT	Average Daily Traffic
ATA	American Trucking Associations
ATSSA	American Traffic Safety Services Association

CCTV	Closed Circuit Television
CE&I	Construction Engineering and Inspection
CHAMP	Connecticut Highway Assistance Motorist Program
CME	CME Engineering, Inc.
CMS	Changeable Message Sign
CPM	Critical Path Method
CSM	Contaminated Soil Manager
CT DEEP	Connecticut Department of Energy and Environmental Protection
COPM	Connecticut Office of Policy and Management
CRCOG	Capitol Region Council of Governments
CTDOT	Connecticut Department of Transportation
CTDOT CE Design	CTDOT Consultant Design
CTDOT Dist. 1	CTDOT District 1 - Construction
CTDOT OOC	CTDOT Office of Construction
CTDOT Traffic	CTDOT Division of Traffic Engineering
CTDOT Highway Operations	CTDOT Division of Highway Operations
CTDOT Communications	CTDOT Office of Communications
CW	Corridor-Wide
DAS	Department of Administrative Services
DBE	Disadvantaged Business Enterprise
DWR	Inspectors Daily Work Report
EEO	Equal Employment Opportunities
FAQ's	Frequently Asked Questions
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GC	Construction Contractor / General Contractor
GEC	General Engineering Consultant
HAR	Highway Advisory Radio
HDM	CTDOT Highway Design Manual
HOV	High Occupancy Vehicle
HWL	H.W. Lochner, Inc.
ICDC	Intermodal Concept Development Committee
IMS	Incident Management System
IR	Inspection Report
MDC	Metropolitan District Commission
MOA	Memorandum of Agreement
MPO	Municipal Planning Organization
M&PT	Maintenance and Protection of Traffic
MUTCD	Manual on Uniform Traffic Control Devices
NHS	National Highway System
NTC	Notice to Contractor
OJT	On-the-Job Training
Operations Center	CTDOT Newington Operations Center
OSTA	Office of State Traffic Administration
PCBC	Precast Concrete Barrier Curb
PCN	Project Change Notification
PCO	Potential Change Order

PE	Preliminary Engineering
PI/PO	Public Information / Public Outreach
PMP	Project Management Plan
PS&E	Plans, Specifications and Estimate
Q&A	Questions & Answers
QA/QC	Quality Assurance/Quality Control
QCM	Quality Control Manager
RFC	Request for Change
RFI	Request for Information
RFQ	Request for Qualifications
RFP	Request for Proposal
ROD	Record of Decision
ROW	Rights of Way
RTMS	Remote Traffic Monitoring Sensors
SBC	Small Business Enterprise
SDEIS	Supplemental Draft Environmental Impact Statement
SHPO	State Historic Preservation Office
SOV	Single Occupancy Vehicle
STC	State Traffic Commission
SWZ	Smart Work Zone
TAVS	CTDOT Traffic Accident Viewing System
TBD	To Be Determined
TCWP	Traffic Control Work Plan
TIP	Transportation Improvement Program
TL-3	Test Level 3, as defined in NCHRP 350
TMO	Transportation Management Organization
TMP	Transportation Management Plan
TO	Transportation Operations
TIM	Traffic Incident Management
TPCBC	Temporary Precast Concrete Barrier Curb
TSM	Transportation System Management
TTC	Temporary Traffic Control
USACOE	United States Army Corps of Engineers
USCG	United States Coast Guard
VE	Value Engineering
VMS	Variable Message Sign
VN	VN Engineering
WZ	Work Zone

APPENDIX A

Stage Construction & Detour Plans

STATE PROJECT NO. 63-703 - STAGE CONSTRUCTION

General Notes:

- Temporary lane and shoulder widths will be 11 feet and 2 feet, respectively.
- Maintain the existing number of lanes as required in the Limitations of Operations.
- Utility (overhead and underground) relocations and detailed above will be advanced as in accordance with the staging plans and prior to the stage in which construction is to occur in the respective area.
- Curbing shall be installed prior to all guiderail installations and the final course of pavement.
- The station numbers indicated on the plans are approximate (nearest 50 feet) and are based on the staging alignment for the roadway being described.

Temporary Ramp and Roadway Closures

Stage construction plans have been developed for the entire project with the goal of identifying the sequence of how the project can be constructed while maintaining the existing number of travel lanes throughout construction phase. This goal was achieved in all but three (3) locations I-91NB at Exit 28 (to ROUTE 5/15SB), ROUTE 5/15SB at Exit 87 (to I-91 SB only) and Route 5 Entrance Ramp to ROUTE 15NB at Interchange 90, which will require closure.

DETOUR (DTR)-01 – Closure at Exit 28 (91NB to Route 5/15SB) - Currently under Bridge No. 00813, there are four travel lanes, 2 lanes for Route 5/15 NB, 1 lane for 5/15 SB and 1 lane from the Exit 28 Ramp. To stage the lowering of Route 5/15 under Bridge No. 00813, the entrance ramp lane from Exit 28 onto Route 5/15 SB requires closure. The closure of this connection allows the Contractor enough work area to lower Route 5/15 in four Stages, while maintaining the existing number of travel lanes on Route 5/15. The volume of traffic on this ramp is low and will result in minimal inconvenience.

The detour route for this closure is 91NB to Exit 29, Route 5/15 (Charter Oak Bridge) to Exit 90, Route 2 WB, to East River Drive, Right onto ROUTE 5/15 SB.

Exit 87 (Route 5/15 SB to I-91 SB only) – This exit ramp provides connections to both the Brainard Road and a secondary connection from Route 5/15 SB to I-91 SB. While the connection from Route 5/15 SB to Brainard Road will remain open at all times, the connection to I-91 SB will be closed during Stages 1A through 1D for the lowering of the ramp under Bridge No. 01466. The closure of the secondary connection to I-91 SB can be expected **only after the completion of the shoulder modifications on Exit 86 (expected completion within 2 or 3 off-peak periods)**. Exit 86 serves as the main connection from Route 5/15 SB to I-91 SB.

DTR-02 – Main Street (Route 5) On-Ramp to Route 15 NB/I-84 EB – This entrance ramp closure is required during Stage 2. The preferred detour route for traffic north of the on-ramp is Main Street northbound, Silver Lane eastbound, and Roberts Street to the I-84 EB on-ramp. The expected duration of this ramp closure is between April 2020 and November 2020. The preferred detour route for traffic south of the on-ramp is Main Street southbound, Willow Street westbound, Route 2 WB using Exit 4 to East River Drive, Silver Lane eastbound, and Roberts Street to the I-84 EB on-ramp.

DTR-03 – Route 15 SB Exit 90 (East River Drive) Off-Ramp – This exit-ramp closure is required during Stage 1B and expected to be completed in 3 weeks during off-peak periods. The preferred detour route is Route 5/15 SB to I-91 SB using Exit 86, to Great Meadow Road using Exit 26, to Route 5/15 NB via I-91 NB Exit 29, to Route 2 WB via Route 5/15 NB Exit 90, to East River Drive via Route 2 WB Exit4.

DTR-04 – East River Drive On-Ramp to Route 5/15 SB – This entrance-ramp closure is required during Stage 1B and expected to be completed in 3 weeks during off-peak periods. The preferred detour route is East River Drive eastbound to Silver Lane eastbound, to the Route 5/15 SB on-ramp.

DTR-05 – Reserve Road – The Reserve Road closure is required to replace the existing at-grade rail crossing. This work will expected to be started in April 2019 and be completed in July 2019 and will proceed as specified in Article 1.08.04, Limitations of Operations. The preferred detour route for traffic using Reserve Road southbound is Wawarme Avenue westbound, Locust Street southbound, Airport Road eastbound, and Maxim Road northbound to Reserve Road northbound. The preferred detour route for traffic using Reserve Road northbound is Reserve Road southbound, Maxim Road southbound, Airport Road westbound, Locust Street northbound to Wawarme Avenue eastbound.

DTR-06 – Main Street Northbound – This roadway closure is required during off-peak periods. The expected duration of these periodic closures is approximately 15 days. The preferred detour route is the Route 5/15 NB on-ramp to Silver Lane, via the Route 15 NB Off-Ramp at Exit 91.

DTR-07 – Main Street Southbound – This roadway closure is required during off-peak periods. The expected duration of these periodic closures is approximately 15 days. The preferred detour route is East River Drive westbound to Route 2 EB, to Willow Street eastbound via Route 2 EB Exit 5, to Main Streetnorthbound.

DTR-08 – Silver Lane Westbound – This roadway closure is required during off-peak periods. The expected duration of these periodic closures is approximately 5 days. The preferred detour route is Roberts Street to the I-84 WB on-ramp, to Governor Street eastbound via I-84 WB Exit 56, to Main Streetsouthbound.

DTR-09 – Silver Lane Eastbound – This roadway closure is required during off-peak periods. The expected duration of these periodic closures is approximately 5 days. The preferred detour route is Main Street northbound to Pitkin Street, to I-84 EB, to Roberts Street via I-84 EB Exit 58.

DTR-11 – Route 15 SB Exit 86 (to I-91 SB) Off-Ramp – This off-ramp closure is required early in Stage 1A and expected to be completed in 2 or 3 days during off-peak periods. The preferred detour route is Route 5/15 SB to I-91 SB using Exit87.

DTR-12 – Route 15 NB Exit 87 (to Brainard Road) Off-Ramp – This off-ramp closure is required during off-peak periods in Stages 1A, 1B and 1D. The preferred detour route is Route 5/15 NB to Exit 90 to East River Road (via Route 2 WB) to Route 15 SB to Exit 87.

DTR-13 – Route 15 SB to Route 15 SB Exit 86 (to I-91 SB) – This ramp closure is required during off-peak periods for the placement of girders (Bridge No. 06947) in Stage 3. The preferred detour route is Route 5/15 SB to Exit 86 to 91SB to Exit 26 (Great Meadow Road) to 91NB to Exit 28 to Route 15 SB.

Stage 1 - General Notes

Stage 1 focuses on ROUTE 15 modifications, which will allow for the widening of I91NB in subsequent stages. The scope of improvements during this stage will address:

- Build the widened portion of the substructures of bridges 00813, 01466,and 00480.
- Lower the profile of the roadways under Bridge Nos. 00813, 01466, and 00480 to maintain minimum vertical under-clearances.
- Complete the re-alignment of Exit 89 (ramp from ROUTE 5/15NB to I-91NB). This re-alignment will facilitate the widening of the Charter Oak Bridge in subsequent stages.
- Modify the left shoulder on the Charter Oak Bridge and approaches (west end) to reduce the left shoulder width from 12 feet to 4 feet. This involves modifications to the high side superelevation shoulder break back to allow for a left traffic shift in Stage 2 and for the permanent condition where the proposed left shoulder is 4 feet wide.
- Modify the cross slope on the main spans of the Charter Oak Bridge to shift the roadway crown 9 feet to the left to accommodate the permanent bridge cross section.

STAGE 1A

Stage 1A – Phase 1

There will need to be work completed prior to the start of Stage 1A (using MPT temporary work zones as shown in the specifications for off peak lane closures) and will be referred as Stage 1A - Phase 1 and Stage 1A – Phase 2. This work within the project limits includes:

- Relocate overhead and underground utilities as necessary on Airport Road, Main Street and the electric duct bank relocation adjacent to Reserve Road (BY OTHERS).
- Eradicate existing rumble strips.
- Catch basins, which will be located in future wheel paths during stage construction will be replaced with catch basin tops with lock-down grates.

Stage 1A – Phase 1 - ROUTE 5/15 NB STA 693+50 TO 720+00 AND SB STA 594+25 TO 620+00

1. Set up detour signing for the closure of Exit 28 (91NB to Route 5/15SB).
2. Close Exit 28 ramp and detour traffic as noted above.
3. During off-peak hours, place TPCBC to close - Exit 28 91NB STA 123+00 to 131+00 RT
4. During off-peak hours, install drainage – Route 5/15 NB STA 706/SB STA 606+00; SB STA 613+25
5. During off-peak periods, the southbound shoulder will be reconstructed to accommodate Route 15SB traffic (15SB STA 597+00 to 620+00LT).
6. Shift Route 5/15SB lane to the right shoulder (15SB STA 594+25 to 620+00LT).
7. Place TPCBC along the temporary left shoulder to accommodate 5/15SB lane shift to the right shoulder area (15SB STA 595+60 to STA 619+00LT).
8. During off-peak periods, the northbound shoulder will be resurfaced/reconstructed to accommodate Route 15 NB traffic (15NB STA 697+00 to 719+00 RT).
9. Shift Route 5/15NB lane to the right shoulder (15NB STA 693+50 to 720+00 RT).
10. Place TPCBC along the temporary left shoulder to accommodate 5/15NB lane shift to right shoulder area (15NB STA 695+60 to 716+50 RT)
11. During off-peak hours, remove sections of the existing median barrier and construct temporary

pavement and place TPCBC for STAGE 1A as shown on plans (15SB STA 598+90 to STA 616+00).

Stage 1A – Phase 2 - US 5/RTE 15NB STA 403+75 TO 406+50 LT (Construction Plan Stationing)

1. Pave left shoulder to remove adverse cross-slope as shown on plans.

Stage 1A – Phase 2 - AIRPORT ROAD ENTRANCE TO 91 SB & US 5/RTE 15SB

1. Construct available temporary entrance ramp.
2. During off-peak hours, close US 5/Route 15 Exit 87 Ramp to 91SB and US 5/RTE 15 SB.
3. Construct connection between temporary and existing entrance ramp.

Stages 1A (Phase 3) – 1D

Stage 1 has been broken down into sub-stages as required for the construction of the permanent re-alignment of the Ramp for Exit 89 and the modifications of the roadway profiles under Bridge Nos. 00813, 01466, and 00480.

Stage 1A (Phase 3) - ROUTE 5/15 NB STA 695+50–717+00and SB STA 594+25 - 621+40

The northbound section of Bridge No. 00813 requires widening to accommodate the additional northbound lane on I-91. This widening of the bridge would further reduce the substandard vertical clearance. Staging at this location is required to address the lowering of Route 5/15 NB and SB under Bridge 00813 to provide adequate verticalclearance.

1. Shift Route 5/15 NB left travel lane onto temporary median pavement (Bridge No. 00813 southbound underpass) (STA 594+25 to 621+40).
2. Restripe Route 5/15 NB to shift the right travel lane towards the existing center pier and place TPCBC outside of temporary right shoulder (STA 695+60 to 717+00).
3. Restripe Exit 87, Route 5/15 NB to Brainard Road, as necessary for laneshift.
4. Construct southeast bridge abutment/pier extensions (Bridge No. 00813) and reconstruct availableroadway section.
5. Restripe and place TPCBC outside of left shoulder of reconstructed roadwaysection.
6. Place bituminous concrete lip curbing & install new guiderail, as shown on plans.

Stage 1A (Phase 3) - ROUTE 15 NB STA 100+00 to 184+00 and SB STA 865+00 to955+00

Stages 1A through 1D on ROUTE 15 NB and SB facilitate the replacement of bridge joints and approach slabs behind the TPCBC on Bridge Nos. 06000A/B (ROUTE 15NB/SB - the Charter Oak Bridge), 06043A/B (ROUTE 15 NB/SB over CT5 – Main Street) and 05796 (ROUTE 15 NB/SB over Silver Lane). In addition, these stages facilitate removal (and eventual replacement in a subsequent stage) of a portion of the bridge deck on Bridge No. 06000A to address adverse cross-slope.

1. During off-peak periods, pave wedge course to remove adverse shoulder cross-slope on ROUTE 15SB STA 912+75 to STA 930+50 LT; Exit 86 STA 6017+50 to STA 6021+40 LT.
2. During off-peak periods, restripe and shifttraffic
    a. ROUTE 15 NB STA 102+00 to STA 184+00
    b. ROUTE 15 NB Exit 90 STA 29+88 to STA 40+00 to the right shoulderarea
3. During off-peak periods, place TPCBC
    a. ROUTE 15NB STA 129+00 to STA 180+70 along leftshoulder
    b. ROUTE 15NB Exit 90 STA 36+30 to STA 41+50 along leftshoulder

c. ROUTE 15NB STA 162+00 to STA 167+25 along rightshoulder

4. Start reconstruction of section of bridge deck on Bridge No. 06000A - ROUTE 15NB STA 132+75 to STA 141+75 LT as shown on bridge staging plans.
5. Construct portion of pavement wedge to create 4' proposed left shoulder crown behind barrier. Remaining portion to be constructed using off-peak lane closures – from Pier 4 to abutment No.2 on Bridge 06000A.

Stage 1A (Phase 3) - Route 15 NB Exit 89 – (to I-91NB)

Exit 89 ramp from ROUTE 5/15NB to 91NB will be realigned to facilitate the widening of the Charter Oak Bridge in subsequent stages.

1. During off-peak periods, widen and pave wedge course in left shoulder to correct cross-slope on Route 15 NB Exit 89 (STA 505+00 to STA515+00).
2. During off-peak periods, restripe and shift traffic
   a. I-91 NB (STA 471+00 to STA 486+00) to the right shoulder area
   b. Exit 89 ramp, adjacent to the travel lanes on I-91 NB (STA 500+00 to 519+30) to the right
3. During off-peak periods, place TPCBC
   a. Exit 89 ramp (STA 503+25 to 515+00) along leftshoulder
   b. ROUTE 15 NB (STA 119+50 to 125+00) along rightshoulder
4. Construct temporary pavement for widening of existing ramp to allow 2 temporary travel lanes required for Stage 1B

Stage 1A (Phase 3) - Airport Road and Entrance Ramp to I-91 SB and Route 5/15SB

1. Place pavement markings & TPCBC, open temporary entrance ramp (from Airport Road) to traffic, close existing entrance ramp.
2. Restripe, place TPCBC and shift both east and westbound traffic on Airport Road towards the south during off-peak period.
3. During off-peak period, shift signal heads (Airport Road/Exit Ramp intersection) to align with temporary travel lanes.
4. Construct temporary bituminous concrete sidewalk; install temporary protective fence (chain link) and temporary construction sidewalk shed adjacent to TPCBC for pedestrian protection.
5. Construct the extension of the north abutment and wingwall.
6. Lower/reconstruct/widen pavement structure on north side of Airport Road.
7. During off-peak periods, place TPCBC at gore area of the I-91 SB/Route 5/15 SB ramp diverge south of Bridge No. 01466.
8. Construct temporary pavement for Stage 1B travel lanes at the I-91 SB/Route 5/15 SB ramp diverge south of Bridge No. 01466.

Stage 1A (Phase 3) – Reserve Road Permanent Rail Crossing

1. Close road and detour traffic
2. Remove rubber grade crossing
3. Excavate adjacent roadway section as shown on plans
4. Install precast concrete crossing system & transition track sections
5. Install underdrains and conduit
6. Construct adjacent roadway structure

7. Repair adjacent pedestrian ramps as needed
8. Install pavement markings and updated signing

Stage 1A (Phase 3) – Reserve Road – Temporary Rail Crossing

1. Install drainage
2. Construct timber rail crossing
3. Place temporary embankment and construct temporary construction access

STAGE 1B

Stage 1B - ROUTE 5/15 NB STA 693+50–719+00 and SB STA 595+00 -622+00

1. Shift Route 5/15 NB right lane to the far right of the reconstructed roadway section (NB underpass).
2. Restripe Exit 87, Route 5/15 NB to Brainard Road asnecessary.
3. Lower/reconstruct available roadwaysection.

Stage 1B - ROUTE 15 NB STA 100+00 to 184+00and ROUTE 15 SB STA 400+00 to STA 438+00 RT; STA 957+00 to STA 978+00 LT

1. Continue median bridge deck reconstruction on Bridge No. 06000A - ROUTE 15NB STA 132+50 to 141+90 LT.
2. During off-peak periods, shift traffic right – Route 15 SB STA 400+00 to STA 438+00 RT
3. During off-peak periods, place TPCBC along the left shoulder Route 15 SB STA 406+70 to STA 425+00 RT to install accessible drainage improvements and reconstruct disturbed pavement.
4. During off-peak periods, install drainage – Route 15 SB STA 418+00 to STA 420+00 LT.
5. During off-peak periods, construct temporary pavement - Route 15 SB STA 957+00 to STA 978+00 LT.

Stage 1B - ROUTE 15 NB Exit 89 – (toI-91NB)

1. During off-peak periods, place TPCBC along left shoulder on I-91NB (STA 473+00 to STA 483+50) and restripe travel lanes.
2. During off-peak periods, complete paving for Stage 1B temporary entrance ramp (STA 503+50 to STA 513+50) and place TPCBC on LT shoulder of temporary exit ramp (STA 505+00 to STA 515+00 LT.
3. Shift traffic onto Stage 1B temporary exitramp.
4. During off-peak hours, place TPCBC on RT shoulders of ROUTE 15 NB STA 103+00 to STA 117+50 and on the temporary NB Exit 89 ramp STA 500+00 to STA 515+00 RT
5. Construct available section of permanent exit ramp and gore at merge withI91NB.
6. Place temporary pavement markings for Stage 1C shifting traffic utilizing the shoulder of the permanent ramp.

Stage 1B - Airport Road and Entrance Ramp to I-91 SB and Route 5/15 SB under I-91

1. On Airport Road, open temporary bituminous concrete sidewalk adjacent to north abutment.
2. Restripe and place TPCBC to shift westbound traffic on Airport Road towards the north.
3. Shift signal heads (Airport Road/Exit Ramp intersection) to align with temporary travel lanes.
4. Lower/reconstruct the center section of AirportRoad.

5. On entrance ramp (Airport Road to I-91 SB/Route 5/15 SB), restripe and place TPCBC to shift traffic towards the south abutment of Bridge No.01466.
6. Construct north abutment and pier extension of Bridge No.01466.
7. Lower/reconstruct the available roadway section.

STAGE 1C

Stage 1C - ROUTE 5/15 NB STA 694+00–719+00 and SB STA 596+50 -622+00

1. Restripe and place TPCBC outside of left shoulder of newly reconstructed roadway section.
2. Shift Route 5/15 NB lane (SB underpass) adjacent to the other NB lane.
3. Lower/reconstruct available roadway section between NB and SB lanes.
4. Construct Center Pier 2 extension.
5. Construct Concrete Median Barrier.
6. Install luminaires.

Stage 1C - ROUTE 15 NB STA 100+00 to 184+00; SB STA 865+00 to 955+00 & Route 15 SB Exit 90

1. During off-peak hours, restripe and shift traffic onto the right shoulder Route 15 NB STA 100+00 to STA 120+00 RT
2. During off-peak hours, place TPCBC along the left shoulder Route 15 NB STA 103+40 to STA 130+00 RT
3. Complete median bridge deck and parapet on Bridge No.06000A – Route 15 NB STA 132+50 to 141+75 LT.
4. Re-construct bridge deck joints within work zone on Bridge No. 06000A/B.
5. Reconstruct approach slabs within work zone at Abutment No. 2 on Bridge 06000A/B
6. During off-peak hours, restripe and shift traffic onto the right shoulder Route 15 NB STA 180+50 to STA 211+00 RT
7. During off-peak periods, place TPCBC along left shoulder on ROUTE 15NB STA 180+50 to 210+20 LT.
8. During off-peak periods, place TPCBC along right shoulder on ROUTE 15SB STA 865+00 to 910+00 LT.
9. During off-peak periods, restripe and shift traffic to the right shoulder area on ROUTE 15SB STA 867+00 to 953+50 LT.
10. During off-peak periods, place TPCBC along left shoulder on ROUTE 15SB STA 871+00 to 951+00 RT.
11. During off-peak periods, shift traffic to left shoulder on Route 15SB Exit 90 STA 50+00 to 59+00 LT.
12. During off-peak periods, place TPCBC along right shoulder on Route 15SB Exit 90 STA 53+30 to STA 60+50 RT.

Stage 1C - Route 15 NB Exit 89 – (to I-91 NB)

1. During off-peak periods, restripe and shift traffic to the right shoulder area on Exit 89 ramp, adjacent to the travel lanes on I-91 NB (STA 501+00 to STA 517+50).

Stage 1C - Airport Road and Entrance Ramp to I-91 SB and Route 5/15 SB under I-91

1. On Airport Road, restripe and place TPCBC to shift eastbound traffic to the north, adjacent to the westbound lanes.
2. Shift signal heads (Airport Road/Exit Ramp intersection) to align with temporary travel lanes.
3. Construct extension of the south abutment and wingwalls of Bridge 00480.
4. Lower/reconstruct the southerly section of Airport Road.
5. Reconstruct available portion of the permanent entrance ramp.
6. At Bridge No. 01466, restripe and place TPCBC to shift traffic towards the north abutment.
7. Construct south abutment and pier extension of Bridge No. 01466.
8. Lower/reconstruct the remaining roadway under Bridge No. 01466 and available portion of ramp to I-91 SB.

Stage 1C – I-91NB STA 106+50 to STA 143+00 (Construction Plan Stationing)

1. During off-peak periods, pave wedge course in left shoulder to remove adverse crown (STA 106+50 to STA 143+00)
2. During off-peak periods, place TPCBC along right shoulder STA 116+00 to STA 118+00 RT for work on Exit 27.

Stage 1C - I-91NB Exit 27 to Brainard Road

1. During off-peak periods, restripe and shift traffic to the right shoulder area on I-91NB Exit 27 (STA 7+00 to STA 17+00).
2. Place TPCBC along temporary left shoulder of Exit 27 ramp (STA 7+00 to STA 17+00).
3. Construct pavement for temporary realigned ramp to the left of the existing ramp (STA 7+00 to STA 17+00).
4. Restripe most of realigned ramp and place TPCBC along left shoulder of Exit 27 ramp STA 7+00 to STA 16+50 LT) and at gore.

STAGE 1D

Stage 1D - ROUTE 5/15 NB STA 694+00–719+00 and SB STA 596+50 - 622+00

1. During off-peak hours, remove TPCBC along left shoulder, restripe roadway for traffic shift to permanent lane location - NB STA 694+00 to 710+00.
2. Restripe and place TPCBC outside of right shoulder of newly reconstructed SB roadway section - SB STA 602+60 to STA 618+00.
3. Shift Route 5/15 SB lane to adjacent to the center pier (Bridge No. 00813) SB STA 596+50 to 622+00.
4. Lower/reconstruct available roadway section.
5. Construct north abutment, northwest wingwall & Pier 3 extension (Bridge No. 00813).

Stage 1D - ROUTE 15 NB STA 100+00 to 184+00 and SB STA 865+00 to 955+00

1. During off-peak periods, close left lane on ROUTE 15NB/SB to replace bridge joints on Bridge Nos. 06000A/B (ROUTE 15NB/SB - the Charter Oak Bridge) at Abutments 1 and 2 and on Piers Nos. 3, 5, 9 & 12 and portion of approach slab at Abutment No. 2.
2. During off-peak hours, pave left shoulder to remove adverse cross-slope – Route 15NB STA 119+50 to STA 132+50 left.

Stage 1D - Airport Road and Entrance Ramp to I-91 SB and ROUTE 5/15 SB under I-91

1. On Airport Road, remove TPCBC and restripe to permanent travel lanelocation.
2. Shift signal heads (Airport Road/Exit Ramp intersection) to align with permanent travel lanes.
3. Install granite curbing; reset catch basin tops and pave final overlay on Airport Road.
4. Construct permanent concretesidewalk on Airport Road.
5. Jack along north abutment, replace bearings (sidewalk shed shall be required while work is performed).
6. Install permanent guiderail on Airport Road.
7. Install temporary pavement markings on entrance ramp.
8. Connect permanent entrance ramp to new roadway under Bridge No. 01466.
9. Restripe and place TPCBC at gore for entrance ramp and Exit 27 ramp (Route 15 SB to I-91 SB) merge and at gore for the I-91 SB/Route 5/15 SB rampdiverge.
10. Reconstruct gore at entrance ramp and Exit 27 ramp (Route 15 SB to I-91 SB)merge and at the I-91 SB/Route 5/15 SB rampdiverge.
11. Install guiderail for ramps.

Stage 1D - 91NB Exit 27 to Brainard Road

1. During off-peak periods, place TPCBC along right shoulder on 91NB STA 400+00 to 412+00 RT, along the right shoulder on Exit 27 STA 5+00 to 12+85 RT, along the left shoulder on Exit 27 STA 7+30 to 16+60 LT and along the right shoulder on 91NB STA 414+20 to 417+00 RT.
2. During off-peak periods, restripe & shift traffic to the left on 91NB STA 400+00 to 412+00 RT, restripe remaining section of Exit 27 ramp and shift traffic to the left ontothe realigned ramp section (STA 8+00 to STA 17+00).
3. Construct widening of available embankment (Ramp STA 5+00 to STA 10+00RT, 91NB STA 400+00 to 411+00 RT.

STAGE 2

General:

On ROUTE 15, Stage 2 will include thefollowing:

- Replace available bridge joints and approach slabs onBridge Nos. 06000A/B (ROUTE 15NB/SB - the Charter Oak Bridge), 06043A/B (ROUTE 15 NB/SB over CT5 – Main Street) and 05796 (ROUTE 15 NB/SB over Silver Lane).
- Widen the west approach to the CharterOak Bridge.
- Widen ROUTE 5/15NB in East Hartford including reconstruction of ramps.
- Construct various retaining walls as shown on the plans including at the southeast end of the Charter Oak Bridge.

On I-91NB, Stage 2 will include thefollowing:

- Complete the widening of I-91NB on the right side by adding one new lane and shoulder.
- Build the widened portion of the superstructures of bridges 00813, 01466, and 00480.

- Reconstruct Exit 27 ramp on new alignment.
- Construct new retaining walls along the right side of the 91 corridor.

Stage 2 - ROUTE 5/15 NB STA 700+00 – 722+50 and SB STA 600+00 - 622+50 (Under Bridge 00813)

1. During off-peak hours, pave ROUTE 15 NB and SB except the final 2" surface course. Establish permanent lane configurations with temporary pavement markings.
2. Place curbing.
3. Install guiderail.

Stage 2 - ROUTE 5/15 NB STA 100+00 to 213+00

1. During off-peak periods, restripe ROUTE 15NB STA 100+00 to 213+00 and shift traffic to the left.
2. During off-peak periods, place TPCBC along temporary right shoulder ROUTE 15NB STA 117+00 to STA 213+00.
3. Widen Abutment 1 and construct Piers 1, 2 & 3 and retaining wall (No. 105) to allow for widening the west approach to the Charter Oak Bridge.
4. Widen superstructure on the west approach to the Charter Oak Bridge (Bridge No. 06000A).
5. Widen northbound side of Bridge Nos. 06043A and 05796.
6. Construct available approach slabs and bridge joint replacements (includes off-peak lane closures).
7. Construct retaining walls along ROUTE 15NB STA 185+00 to STA 209+50 RT and at Exit 91 ramp.
8. Modify ROUTE 15NB Exit 91 Ramp to accommodate widened expressway.
9. Widen ROUTE 15NB STA 117+00 to 140+00 RT and STA 172+00 to 213+00 RT.
10. Install noise wall ROUTE 15NB STA 191+50 to 209+50 RT and at Exit 91 ramp.
11. Relocate IMS conduit and cables for VMS 91N-033 operation to TPCBC.

Stage 2 – ROUTE 5/15 NB Exit 89

1. During off-peak periods, restripe and shift traffic further right – STA 500+00 to 503+00 RT
2. During off-peak periods, place TPCBC along left shoulder – STA 500+50 to 517+00 LT.
3. Construction Retaining Wall No. 105; Wingwall 1B and Widen Abutment 1
4. Install proposed modifications to drainage systems.

Stage 2 - ROUTE 5/15 SB STA 865+00 to 955+00

1. During off-peak periods, restripe and shift traffic
    a. STA 994+00 to 974+00+00 to the right shoulder.
    b. STA 971+35 to 895+60 to the left shoulder
    c. Exit 86 Ramp STA 1027+00 to 1000+00 to the right shoulder
2. During off-peak periods, place TPCBC
    a. STA 996+30 to 903+50 along the temporary right shoulder
    b. Exit 86 ramp STA 1021+50 to 1009+00 along the temporary left shoulder & STA 1000+00 to 1027+00 along the temporary right shoulder.
    c. STA 623+50 to 620+50 along right shoulder to protect work zone from I-91 NB Interchange 28 exit ramp.
3. Construct available approach slabs and bridge joint replacements (includes off-peak lane closures).

4. Construct abutment, pier columns and straddle pier columns for new bridge on the northbound exit ramp for Interchange 29.

Stage 2 - Airport Road and Entrance Ramp to I-91 SB and Route 5/15 SB under I-91

1. During off-peak periods, place final course of pavement on Airport Road, the entrance ramp, the entrance ramp/Exit 27 ramp merge/diverge areas and ramps.
2. Place final pavement markings and shift traffic to the final alignment on Airport Road and the entrance ramp.
3. Open connection from Route 15 Exit 87 to 91 SB.

Stage 2 - I-91 Northbound

1. During off-peak periods, pave temporary pavement wedge in the left shoulder to address adverse cross-slope – STA 405+50 to 442+00.
2. During off-peak periods, restripe and shift traffic to the left shoulder STA 400+00 to 473+00.
3. During off-peak periods, place TPCBC along the right shoulder STA 414+00 to 423+50 and STA 429+00 to 464+00
4. Build the widened portion of the superstructures of bridges 00813, 01466, and 00480.
5. Reconstruct Exit 28 and a section of Exit 27 - STA 5+00 to 11+00RT.
6. Widen to construct travel lane and right shoulder STA 401+00 to 463+50RT.
7. Install Temporary Bridge Joints – Bridge Nos. 00813, 01466 and 00480.

STAGE 3

General Notes

On ROUTE 15, Stage 3 will include the following:

- Complete the replacement of bridge joints and approach slabs on Bridge Nos. 06000A/B (ROUTE 15NB/SB - the Charter Oak Bridge) and 05796 (Route 15 NB/SB over Silver Lane).

  Continue the replacement of bridge joints and approach slabs on Bridge No.06043A/B (Route 15 NB/SB over CT5 – Main Street)
- Temporary realign ROUTE 15NB to allow a work zone for the construction of the new bridge for Interchange 29 Exit Ramp and the demolition of the existing bridge for Interchange 29 Exit Ramp.

On I-91NB, Stage 3 will include the following:

- Complete the construction of the new Exit 29 Fly-over Bridge and associated retaining walls.
  - This work requires a significant work zone between ROUTE 5/15NB and ROUTE 5/15SB. Work completed in previous stages allows for a work zone.
  - DETOUR 13 will be required during placement of structural steel.
- Complete the gore area at Interchange 27

On I-91SB, Stage 3 will include the following:

- Pave wedge course in right shoulder areas as required prior to shifting traffic in Stage 4.

Stage 3 - ROUTE 5/15 NB STA 207+50 to 320+00

1. During off-peak periods, restripe and shift traffic as follows:
    a. STA 207+50 to 218+00 to the left shoulder
    b. STA 218+00 to 248+00 Shift to right shoulder.
    c. STA 248+00 to 274+00 Shift to the left shoulder
    d. STA 274+00 to 308+00 Shift to the right shoulder.
    e. STA 308+00 to STA 313+00 shift to existing travel lane locations.
2. During off-peak periods, place TPCBC as follows:
    a. Along the temporary left shoulder STA 224+00 to 240+50
    b. Along the left shoulder STA 284+50 to 293+25
3. Continue approach slabs and bridge joint replacements.

Stage 3 - ROUTE 5/15 SB STA 900+00 to 1002+00

1. During off-peak periods, restripe and shift traffic as follows:
    a. STA 981+00 to 922+00 to the left shoulder.
    b. STA 922+00 to 906+50 to the right shoulder
    c. STA 906+50 to 900+00 to the left shoulder
    d. Interchange 90 Exit Ramp – STA 50+00 to 59+00 to the right shoulder
    e. Interchange 90 Entrance Ramp – STA 344+00 to 363+00 to the right shoulder
2. During off-peak periods, place TPCBC as follows:
    a. STA 972+00 to 977+50 along the right shoulder.
    b. STA 919+65 to 905+50 along the left shoulder.
    c. Exit 90 Ramp – STA 50+30 to 56+70 along the left shoulder
    d. Interchange 90 Entrance Ramp – STA 344+00 to 358+75 along the left shoulder
3. Complete approach slabs and bridge joint replacements

Stage 3 - I-91 NB STA 400+00 to 464+00

1. During off-peak periods, restripe and shift traffic as follows:
    a. STA 400+00 to 464+00 to the right shoulder.
    b. Exit 27 Ramp STA 9+50 to 13+00 to the right shoulder
2. During off-peak periods, place TPCBC as follows:
    a. STA 412+40 to 415+40 along the right shoulder.
    b. STA 446+50 to 464+50 along the left shoulder.
3. Complete pavement in gore area and Exit 27 Ramp - STA 413+00 to 415+50
4. Complete construction of new flyover bridge and retaining walls - Complete approach/departure to new flyover bridge STA 451+00 to 466+50 LT.

Stage 3 - I-91 SB STA 504+00 to 522+00+00

1. During off-peak periods, restripe and shift traffic to the right shoulder on I-91 SB STA 504+00 to 521+75. This shift increases the work zone necessary for the construction of the new exit ramp from I-91 NB to Route 15 NB.
2. During off-peak periods, place TPCBC from I-91 SB STA 506+50 along the left shoulder to Exit 86 Ramp STA 1217+75 along the left shoulder. This shift increases the work zone necessary for the construction of the new exit ramp from I-91 to Route 15.
3. During off-peak periods, pave wedge course on right shoulder between the entrance ramps from

Route 15 NB Interchange 26 and from Airport Road. (No Stationing in this area) This work on the right shoulder is required to allow the shift for the replacement of concrete median barrier in Stage4.

STAGE 4

General:

On ROUTE 15, Stage 4 will include thefollowing:

- Temporary realign ROUTE 15NB to allow a work zone for the removal of the existing Exit 29 Ramp and Ramp Bridge.
- Complete the construction of the widened portion of Spans 4 and 5 of the Charter Oak Bridge.
- Complete the replacement of bridge joints and approach slabs on06043A/B (ROUTE 15 NB/SB over CT5 – Main Street).
- Construction of permanent concrete barrier curb on SB in the vicinity of the new bridge.
- Final paving and establishment of permanent laneconfiguration

On I-91, Stage 4 will include the following:

- Open the new Exit 29 Ramp to traffic (1 lane only).
- Removal of the existing Exit 29 Ramp & Bridge 06000C.
- Reconstruct left shoulder and median parapet to 42" high standard on Bridges Nos. 00813, 01466 and 00480.
- Modify drainage and reconstruct median concrete barrier and left shoulder - NB & SB.
- Final paving and installation of temporary expansion joints on Bridges Nos. 00813, 01466 and 00480.
- Establish permanent laneconfiguration

STAGE 4 - ROUTE 15 Northbound

1. During off-peak periods, shift traffic as follows:

   STA 100+00 to 140+00 – shift to left shoulder for the removal of the existing Exit 29 Ramp and Ramp Bridge; completion of the gore for Exit 89.

   a. STA 276+00 to STA 307+00 - shift to left shoulder to facilitate the completion ofthe bridge joint replacement.
2. During off-peak periods, place TPCBC as follows
   a. STA 120+50 to 521+25+00 - along the rightshoulder.
   b. STA 287+00 to 293+30- along the rightshoulder.
3. After removal of Bridge No. 06000C (excluding portions of Spans P3 and P4 of the Charter Oak Bridge), modify the top of piers 4 and 5 to accept the new spans P3 and P4.
4. Construct the superstructure of Spans P3 and P4 of Bridge 06000A.
   a. Access to this work zone will primarily be from below using temporary easements and from above on the right side of the main spans of the Charter Oak Bridge.
5. Minor work may be required on the right side of Span 6 in order to establish correctgrades. The existing area is within the superelevation run-out of the existing Exist 29 ramp geometry.
6. Remove TPCBC, complete final paving and establish permanent laneconfigurations.

STAGE 4 - ROUTE 15 Southbound

1. During off-peak periods, shift traffic as follows:
    a. STA 899+50 to 930+00 – shift to left shoulder for construction of the right shoulder and gore area at Exit 86
        i. Shift Exit 86 ramp traffic to the right shoulder for construction of the right shoulder and gore area at Exit 86
2. During off-peak periods, place TPCBC as follows
    a. STA 899+50 to 913+00 - along the right shoulder and along the left shoulder on the exit ramp (approximately 840 LF) STA 2001+50 to 2009+70 LT.
3. STA 899+50 to 913+00 – Construct right shoulder on ROUTE 15SB and gore area. Final grading between retaining wall and ramp.
4. STA 908+50 to 909+50 - Construct permanent concrete barrier to protect from vehicles from the substructure of new bridge.
5. Remove TPCBC, complete final paving and establish permanent lane configurations.

STAGE 4 - I-91

1. During off-peak periods, shift traffic as follows:
    a. NB STA 150+00 to 217+00 – shift to the right shoulder
    b. SB STA 456+25 to 521+25 – shift to the right shoulder
2. During off-peak periods, place TPCBC as follows
    a. NB STA 155+50 to 211+00 - along the left shoulder
    b. NB STA 416+25 to 429+40 – along the right shoulder
    c. SB STA 456+25 to 512+60 – along the left shoulder
3. Reconstruct portion of left shoulder and median parapet to 42” high standard on Bridges Nos. 00813, 01466 and 00480.
4. Install temporary bridge joints on Bridges Nos. 00813, 01466 and 00480.
5. NB STA 158+00 to 208+00 - Construct permanent concrete median barrier curb and construct left shoulder.
6. SB STA 456+75 to 507+00 - Construct permanent concrete median barrier curb and reconstruct left shoulder.
7. NB STA 416+50 to 429+00 – Install drainage; remove Bridge 06000C/approach/gore; construct right shoulder.
8. NB STA 150+00 to 217+00 - Remove TPCBC, complete final paving and establish permanent lane configurations.
9. SB STA 456+25 to 521+60 - Remove TPCBC, complete final paving and establish permanent lane configurations.

FINAL STAGE MILL AND OVERLAY

After all work is complete and the traffic control devices have been removed, the Contractor shall mill and pave a final course of pavement; install final joint on Bridge Nos. 00813, 01466 and 00480; place permanent pavement markings on I-91, SR 5/15 and ramps in accordance with the Signing and Pavement Marking Plans. This operation shall not be performed until traffic can be permanently placed in its final allocations.

DETOUR NOTES:

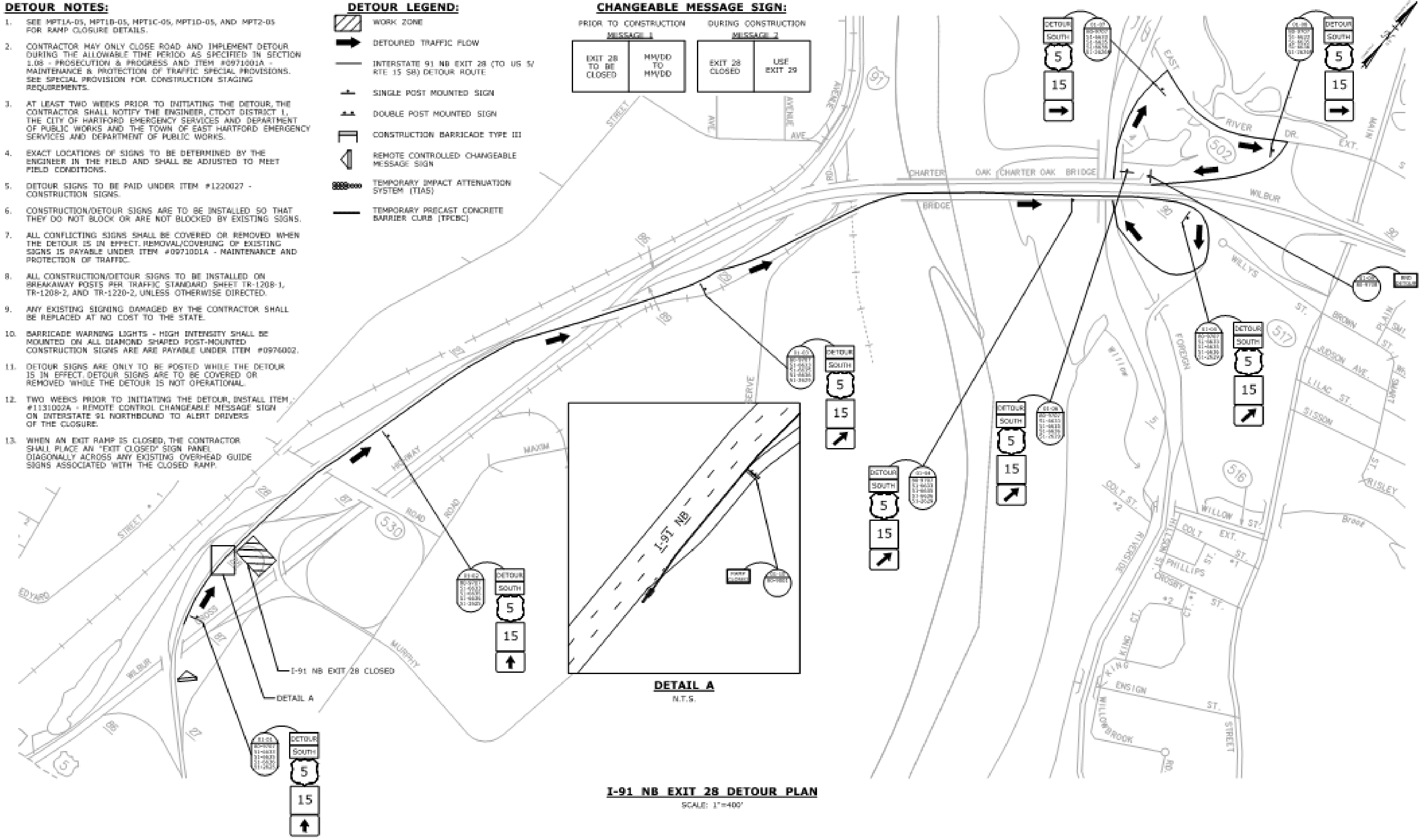
1. SEE MPT1A-05, MPT1B-05, MPT1C-05, MPT1D-05, AND MPT2-05 FOR RAMP CLOSURE DETAILS.
2. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
3. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, THE CITY OF HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS AND THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
4. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
5. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
6. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
7. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
8. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
9. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
10. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
11. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
12. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN ON INTERSTATE 91 NORTHBOUND TO ALERT DRIVERS OF THE CLOSURE.
13. WHEN AN EXIT RAMP IS CLOSED, THE CONTRACTOR SHALL PLACE AN "EXIT CLOSED" SIGN PANEL DIAGONALLY ACROSS ANY EXISTING OVERHEAD GUIDE SIGNS ASSOCIATED WITH THE CLOSED RAMP.

DETOUR LEGEND:

- WORK ZONE
- DETOURED TRAFFIC FLOW
- INTERSTATE 91 NB EXIT 28 (TO US 5/ RTE 15 SB) DETOUR ROUTE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III
- REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN
- TEMPORARY IMPACT ATTENUATION SYSTEM (TIAS)
- TEMPORARY PRECAST CONCRETE BARRIER CURB (TPCBC)

CHANGEABLE MESSAGE SIGN:

PRIOR TO CONSTRUCTION MESSAGE 1		DURING CONSTRUCTION MESSAGE 2	
EXIT 28 TO BE CLOSED	MM/DD TO MM/DD	EXIT 28 CLOSED	USE EXIT 29



DETAIL A

N.T.S.

I-91 NB EXIT 28 DETOUR PLAN

SCALE: 1"=400'

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: MGK
CHECKED BY: MWD/JAK
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB

CITY/TOWN: HARTFORD EAST HARTFORD

DRAWING TITLE: I-91 NB EXIT 28 DETOUR PLAN

PROJECT NO. 63-703
DRAWING NO. DTR-01
SHEET NO. 04.01.15.002

DETOUR NOTES:

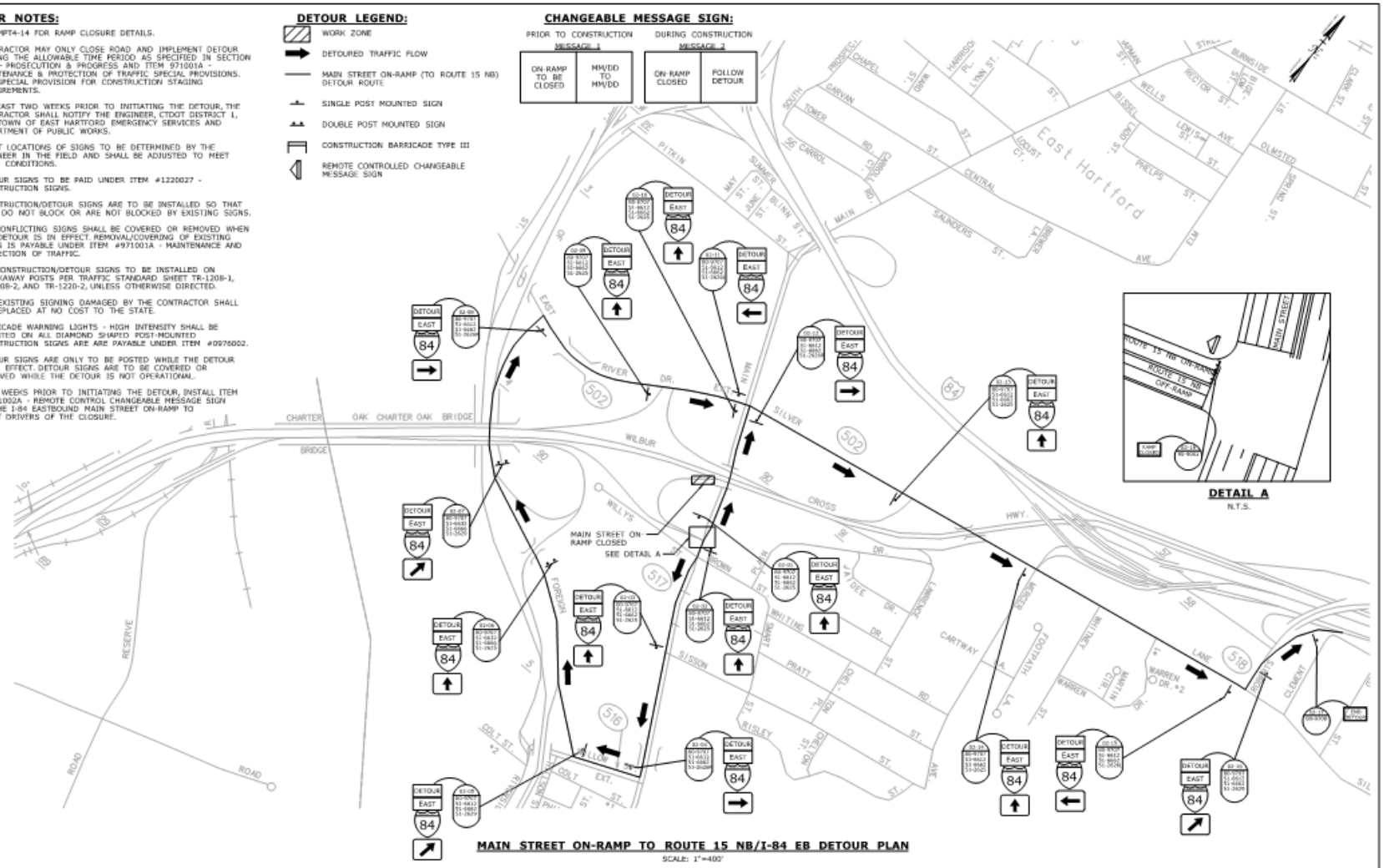
1. SEE MPT4-14 FOR RAMP CLOSURE DETAILS.
2. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM 971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
3. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
4. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
5. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
6. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
7. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
8. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
9. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
10. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
11. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
12. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN AT THE I-84 EASTBOUND MAIN STREET ON-RAMP TO ALERT DRIVERS OF THE CLOSURE.

DETOUR LEGEND:

- WORK ZONE
- DETOURED TRAFFIC FLOW
- MAIN STREET ON-RAMP (TO ROUTE 15 NB) DETOUR ROUTE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III
- REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN

CHANGEABLE MESSAGE SIGN:

PRIOR TO CONSTRUCTION MESSAGE 1		DURING CONSTRUCTION MESSAGE 2	
ON-RAMP TO BE CLOSED	MM/DD TO MM/DD	ON-RAMP CLOSED	FOLLOW DETOUR



DETAIL A
N.T.S.

MAIN STREET ON-RAMP TO ROUTE 15 NB/I-84 EB DETOUR PLAN
SCALE: 1"=400'

DESIGNED/DRAWN:	MGK
CHECKED:	MWD/JAK
	SCALE AS NOTED

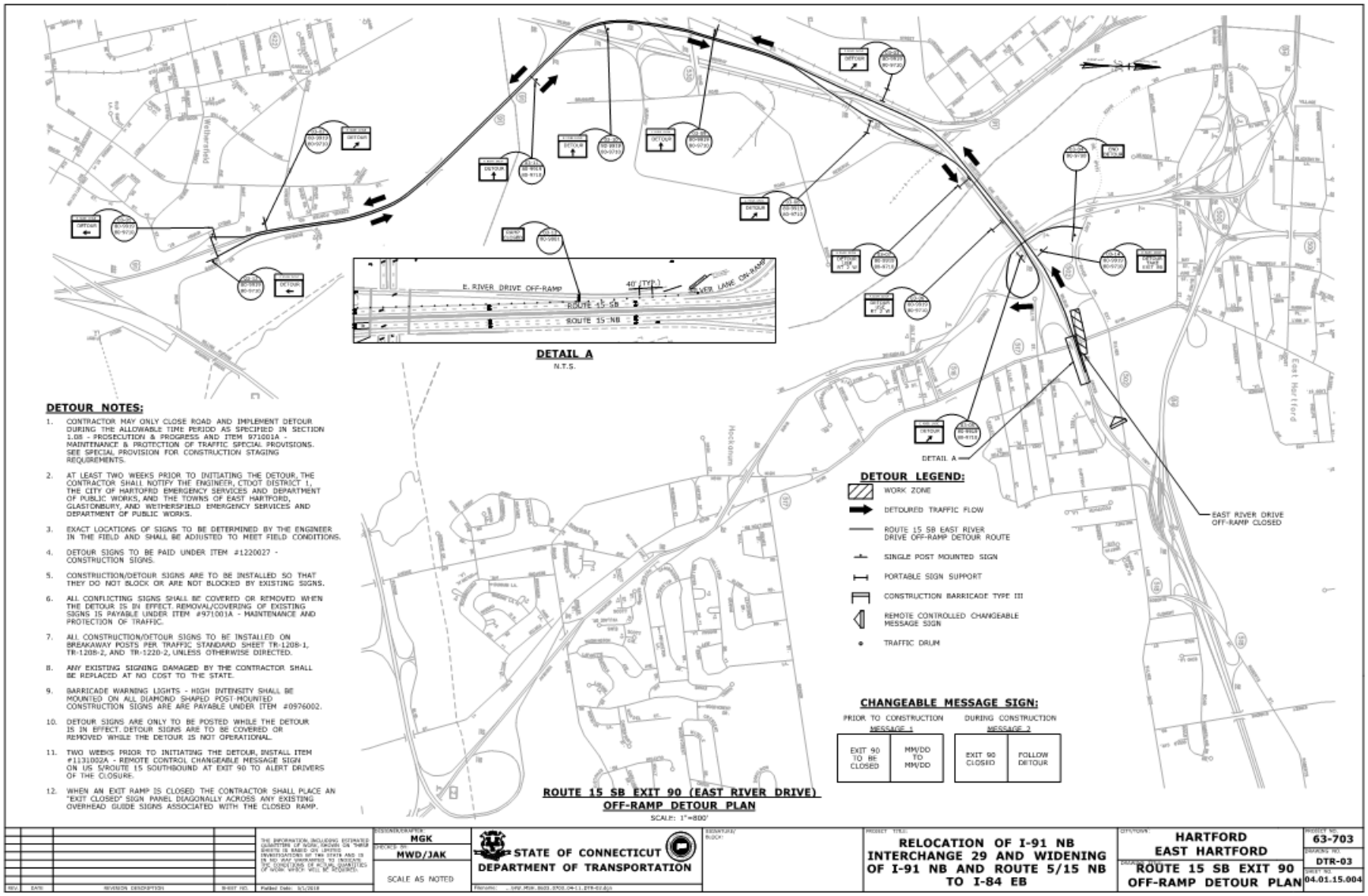
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB

CITY/TOWN: HARTFORD, EAST HARTFORD

DESCRIPTION: RTE 15 NB/I-84 EB ON-RAMP DETOUR PLAN

PROJECT NO.	63-703
DRAWING NO.	DTR-02
SHEET NO.	04.01.15.003



DETOUR NOTES:

1. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM 971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
2. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, THE CITY OF HARTOFRD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS, AND THE TOWNS OF EAST HARTFORD, GLASTONBURY, AND WETHERSFIELD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
3. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
4. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
5. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
6. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
7. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
8. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
9. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
10. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
11. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN ON US 5/ROUTE 15 SOUTHBOUND AT EXIT 90 TO ALERT DRIVERS OF THE CLOSURE.
12. WHEN AN EXIT RAMP IS CLOSED THE CONTRACTOR SHALL PLACE AN "EXIT CLOSED" SIGN PANEL DIAGONALLY ACROSS ANY EXISTING OVERHEAD GUIDE SIGNS ASSOCIATED WITH THE CLOSED RAMP.

ROUTE 15 SB EXIT 90 (EAST RIVER DRIVE) OFF-RAMP DETOUR PLAN

SCALE: 1"=800'

REV.	DATE	REVISION DESCRIPTION	B-DOT NO.

THE INFORMATION INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTIED TO INDICATE THE CONDITIONS OF ROAD, QUANTITIES OF WORK WHICH WILL BE ENCOUNTERED.

Plotted Date: 5/1/2018

DESIGNED/DRAWN: MGK
CHECKED BY: MWD/JAK
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\RTE_15SB_EXIT_90_EAST_RIVER_DR_OFF-RAMP_DETOUR_PLAN.dgn

RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB

CITY/TOWN: HARTFORD, EAST HARTFORD

ROUTE 15 SB EXIT 90 OFF-RAMP DETOUR PLAN

PROJECT NO. 63-703
DRAWING NO. DTR-03
SHEET NO. 04.01.15.004

DETOUR NOTES:

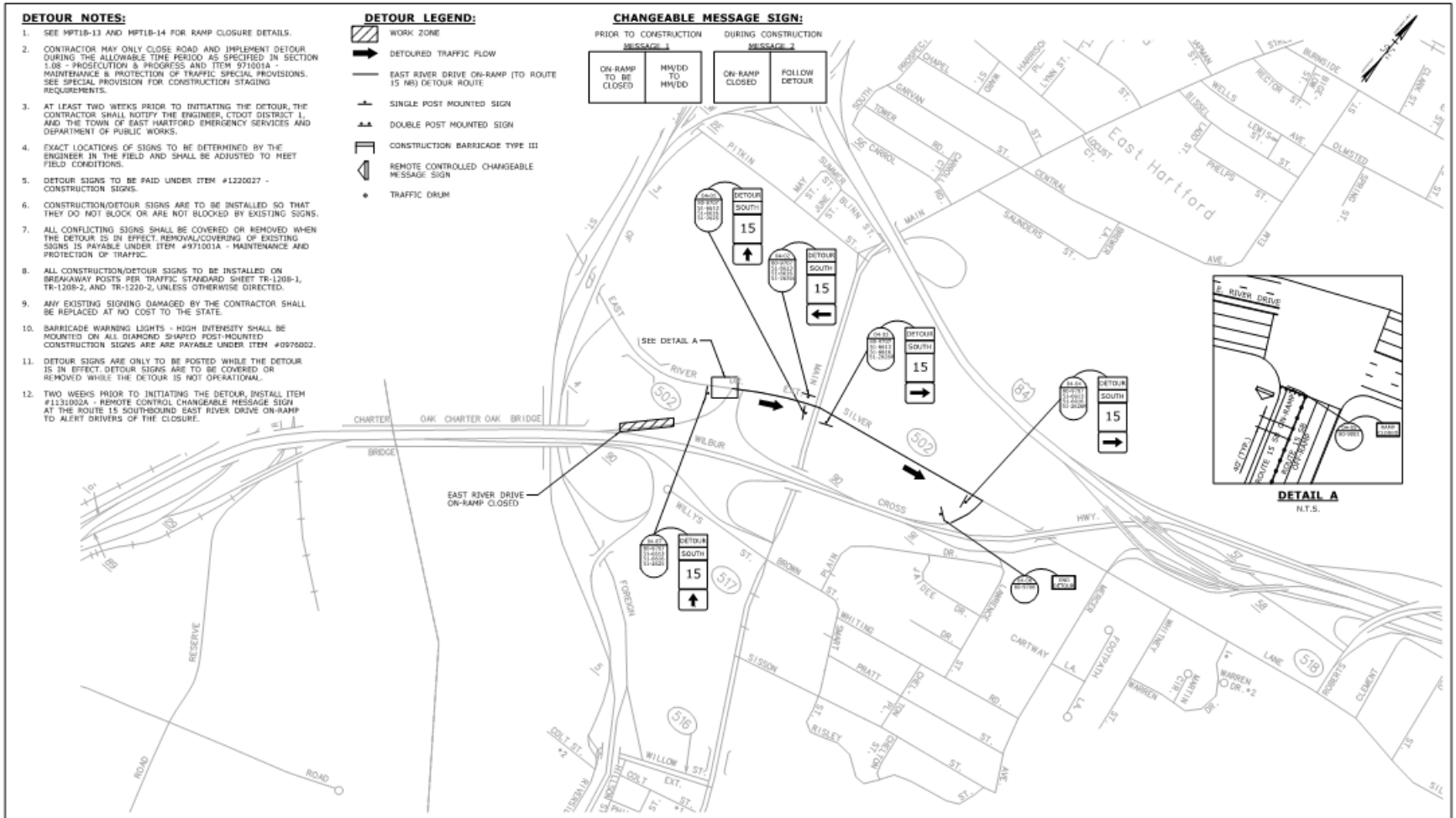
1. SEE MPT1B-13 AND MPT1B-14 FOR RAMP CLOSURE DETAILS.
2. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM 971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
3. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, AND THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
4. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
5. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
6. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
7. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
8. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
9. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
10. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
11. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
12. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN AT THE ROUTE 15 SOUTHBOUND EAST RIVER DRIVE ON-RAMP TO ALERT DRIVERS OF THE CLOSURE.

DETOUR LEGEND:

- WORK ZONE
- DETOURED TRAFFIC FLOW
- EAST RIVER DRIVE ON-RAMP (TO ROUTE 15 NB) DETOUR ROUTE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III
- REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM

CHANGEABLE MESSAGE SIGN:

PRIOR TO CONSTRUCTION MESSAGE 1		DURING CONSTRUCTION MESSAGE 2	
ON-RAMP TO BE CLOSED	MM/DD TO MM/DD	ON-RAMP CLOSED	FOLLOW DETOUR



EAST RIVER DRIVE ON-RAMP TO ROUTE 15 SB DETOUR PLAN

SCALE: 1"=400'

REV.	DATE	REVISION DESCRIPTION	B-SHT NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY GUARANTEED TO INDICATE THE CONDITIONS OR ACTUAL QUANTITIES OF WORK WHICH WILL BE ENCOUNTERED.

Plotted Date: 3/1/2018

DESIGNED/DRAWN	MGK
CHECKED BY	MWD/JAK
	SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...DRP_MSN_8003_STOS_04-11_DTR-04.dgn

SIGNATURE/BLOCK

PROJECT TITLE:
RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB

CITY/TOWN: **HARTFORD EAST HARTFORD**

DRAWING TITLE: **ROUTE 5/15 SB ON-RAMP DETOUR PLAN**

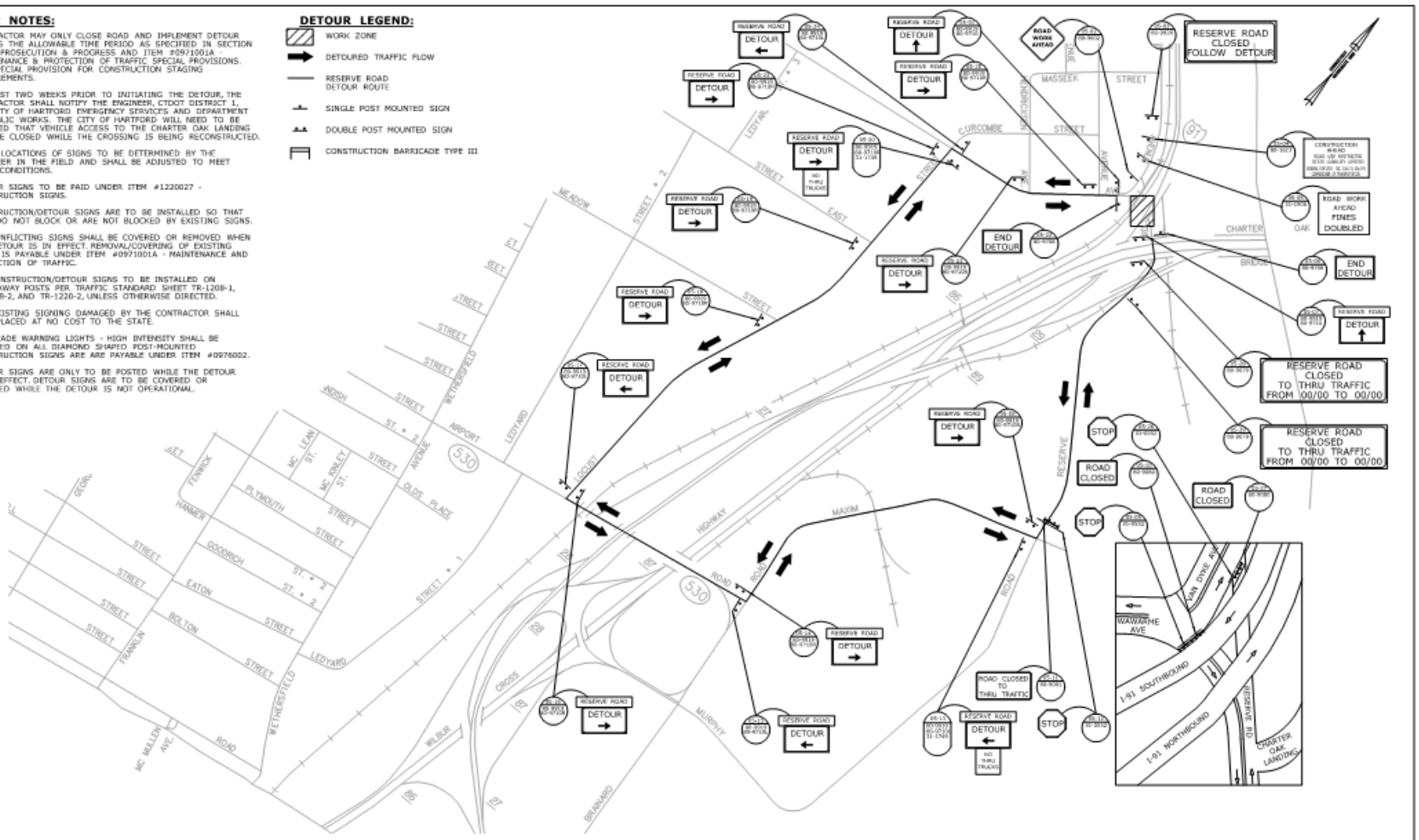
PROJECT NO.	63-703
DRAWING NO.	DTR-04
SHEET NO.	04.01.15.005

DETOUR NOTES:

1. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
2. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, THE CITY OF HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS. THE CITY OF HARTFORD WILL NEED TO BE NOTIFIED THAT VEHICLE ACCESS TO THE CHARTER OAK LANDING WILL BE CLOSED WHILE THE CROSSING IS BEING RECONSTRUCTED.
3. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
4. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
5. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
6. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
7. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
8. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
9. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
10. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.

DETOUR LEGEND:

- WORK ZONE
- DETOURED TRAFFIC FLOW
- RESERVE ROAD DETOUR ROUTE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III



RESERVE ROAD DETOUR PLAN

SCALE: 1"=400'

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	THE INFORMATION INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS OF THIS SITE AND IS TO BE USED FOR GENERAL GUIDANCE ONLY. CONSTRUCTION OF ITEMS OR QUANTITIES OF WORK WHICH WILL BE REQUIRED. Plotted Date: 3/1/2018	DESIGNED/DRAWN: MGK CHECKED BY: MWD/JAK SCALE AS NOTED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...\INF_MGK_0603_0703_04-11_DTR-05.dgn	SIGNATURE/ BLOCK:	PROJECT TITLE: RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB	CITY/TOWN: HARTFORD EAST HARTFORD DRAWING TITLE: RESERVE ROAD DETOUR PLAN	PROJECT NO.: 63-703 DRAWING NO.: DTR-05 DRAFT DATE: 04.01.15.006

DETOUR NOTES:

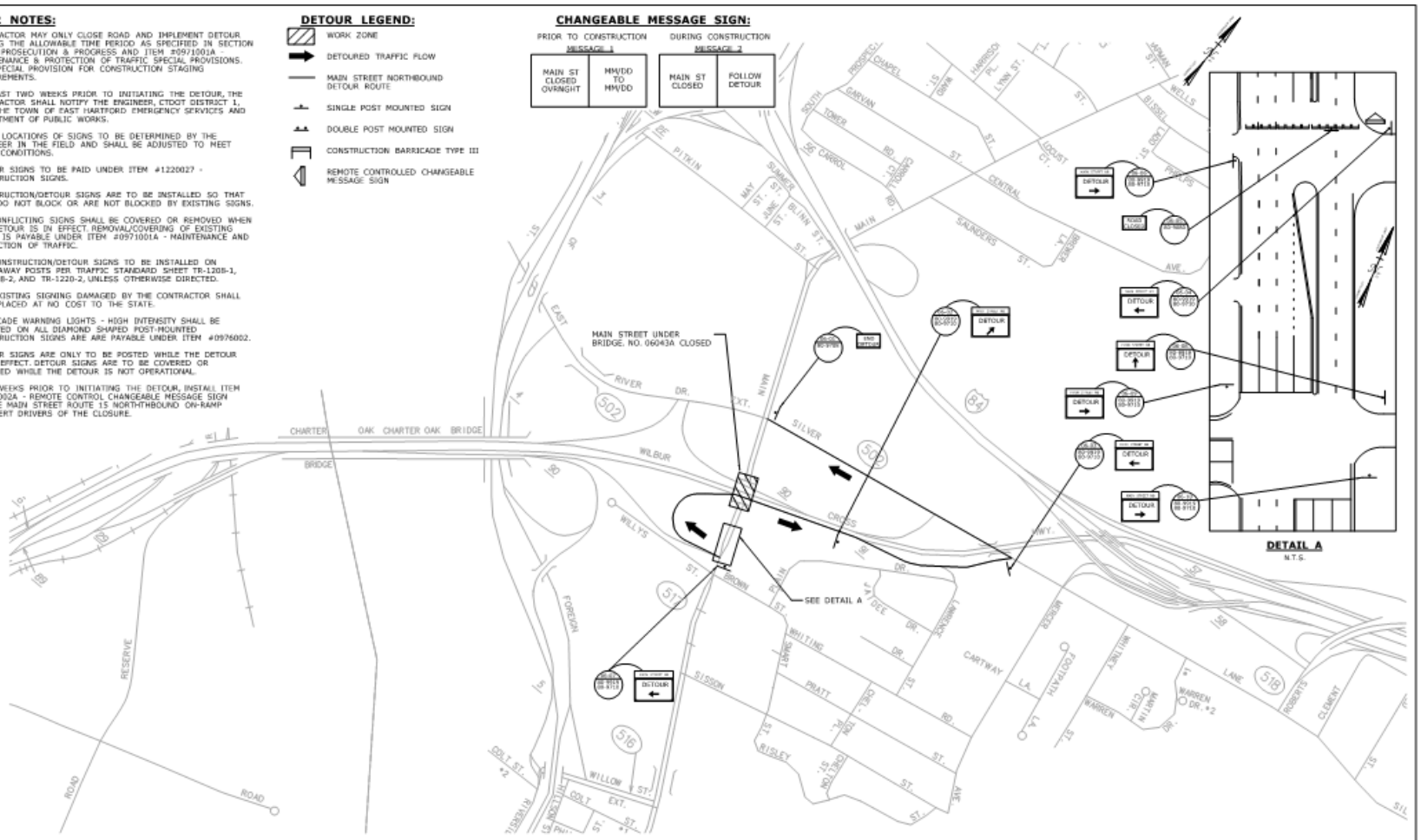
1. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
2. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, AND THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
3. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
4. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
5. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
6. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
7. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
8. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
9. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
10. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
11. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN AT THE MAIN STREET ROUTE IS NORTHTHBOUND ON-RAMP TO ALERT DRIVERS OF THE CLOSURE.

DETOUR LEGEND:

- WORK ZONE
- DETOURED TRAFFIC FLOW
- MAIN STREET NORTHBOUND DETOUR ROUTE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III
- REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN

CHANGEABLE MESSAGE SIGN:

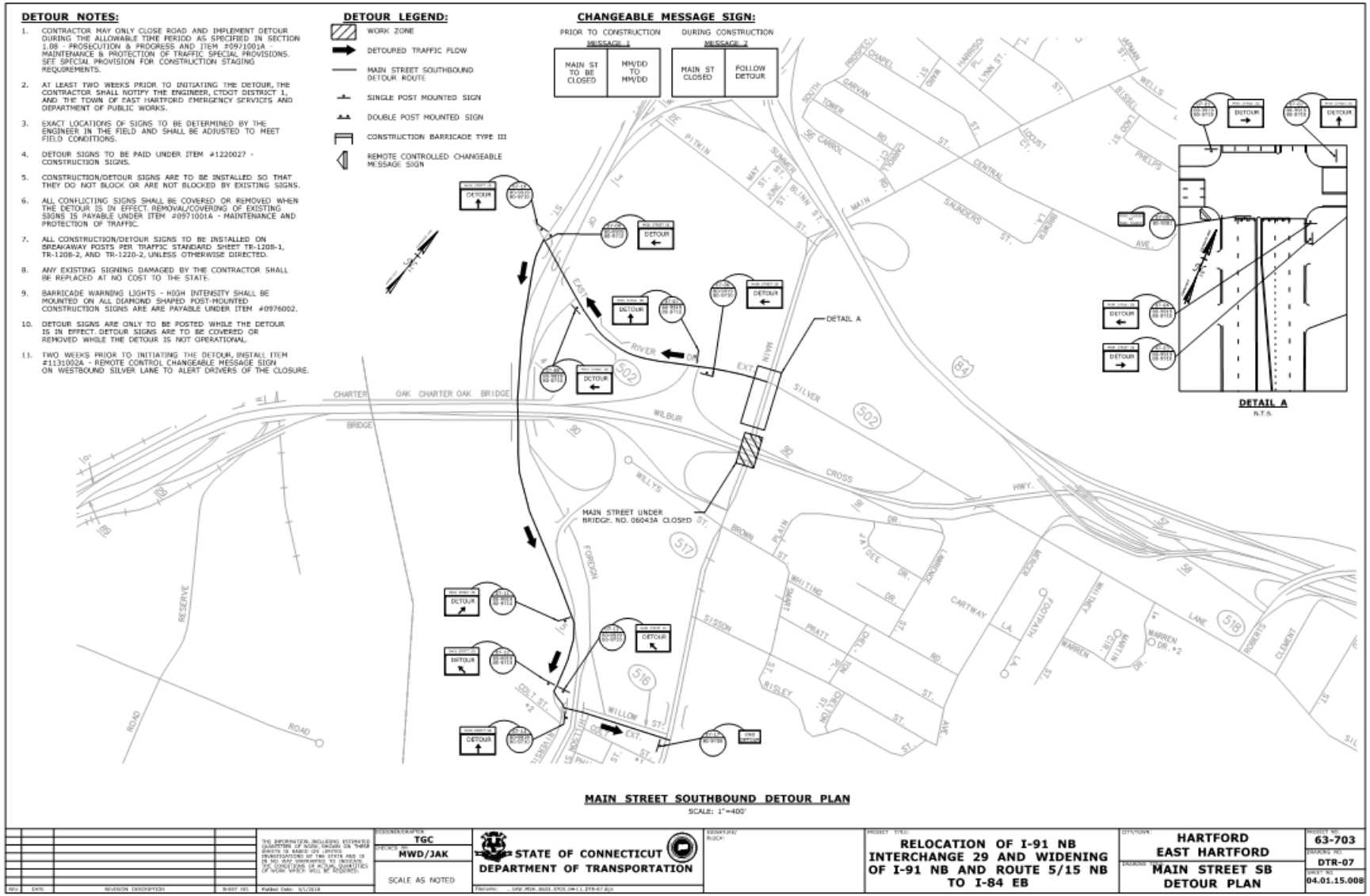
PRIOR TO CONSTRUCTION		DURING CONSTRUCTION	
MESSAGE 1		MESSAGE 2	
MAIN ST CLOSED OVRNGHT	MM/DD TO MM/DD	MAIN ST CLOSED	FOLLOW DETOUR



DETAIL A
N.T.S.

MAIN STREET NORTHBOUND DETOUR PLAN
SCALE: 1"=400'

REV.	DATE	REVISION DESCRIPTION	BY	CHK'D		DESIGNED/DRAFTED: TGC	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB	CITY/TOWN: HARTFORD EAST HARTFORD
					THE INFORMATION INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE PLANS IS THE RESULT OF PRELIMINARY INVESTIGATIONS BY THE STATE AND IS IN NO WAY GUARANTEED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE ENCOUNTERED.	CHECKED BY: MWD/JAK		SIGNATURE/BLOCK:		DRAWING: MAIN STREET NB DETOUR PLAN
					Field Date: 5/1/2018	SCALE AS NOTED	Filename: ...\INF\Plan_Roll\3703_04-11_DTR-06.dgn			PROJECT NO.: 63-703 / DRAWING NO.: DTR-06 / SHEET NO.: 04.01.15.007


DETOUR NOTES:
1. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
2. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, AND THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
3. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
4. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
5. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
6. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
7. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFSC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
8. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
9. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
10. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
11. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN ON WESTBOUND SILVER LANE TO ALERT DRIVERS OF THE CLOSURE.
DETOUR LEGEND:
WORK ZONE
DETOURED TRAFFIC FLOW
MAIN STREET SOUTHBOUND DETOUR ROUTE
SINGLE POST MOUNTED SIGN
DOUBLE POST MOUNTED SIGN
CONSTRUCTION BARRICADE TYPE III
REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN
CHANGEABLE MESSAGE SIGN:
PRIOR TO CONSTRUCTION
MESSAGE 1
MAIN ST TO BE CLOSED
MM/DD TO MM/DD
DURING CONSTRUCTION
MESSAGE 2
MAIN ST CLOSED
FOLLOW DETOUR
DETOUR
DETAIL A
N.T.S.
MAIN STREET UNDER BRIDGE, NO. 06043A CLOSED
CHARTER OAK BRIDGE
MAIN STREET SOUTHBOUND DETOUR PLAN
SCALE: 1"=400'
DESIGNED/DRAWN: TGC
CHECKED: MWD/JAK
SCALE AS NOTED
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
PROJECT TITLE:
RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB
CITY/TOWN: HARTFORD EAST HARTFORD
DRAWING TITLE: MAIN STREET SB DETOUR PLAN
PROJECT NO. 63-703
DRAWING NO. DTR-07
SHEET NO. 04.01.15.008

DETOUR NOTES:

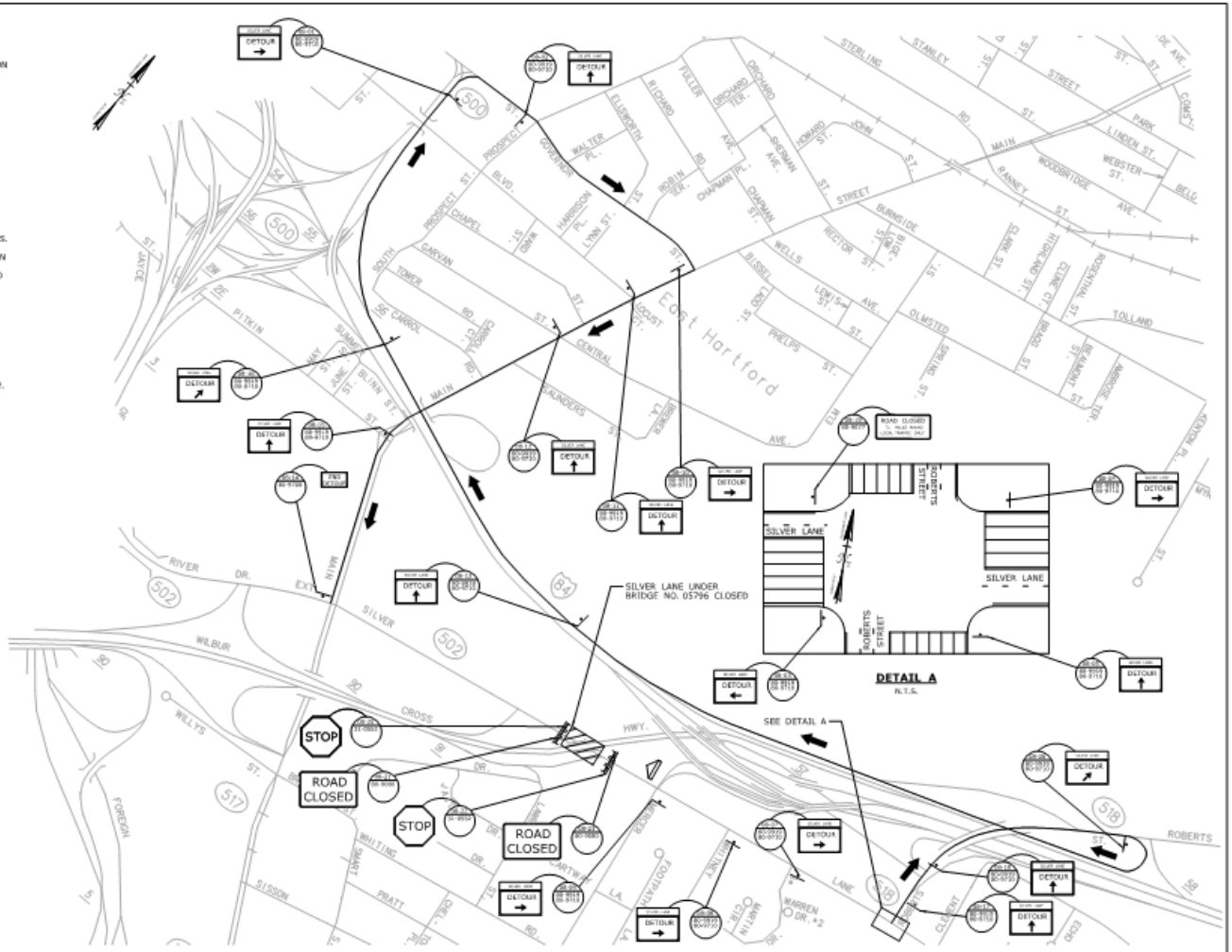
1. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
2. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, AND THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
3. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
4. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
5. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
6. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
7. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
8. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
9. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
10. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
11. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN AT WESTBOUND SILVER LANE TO ALERT DRIVERS OF THE CLOSURE.

CHANGEABLE MESSAGE SIGN:

PRIOR TO CONSTRUCTION		DURING CONSTRUCTION	
MESSAGE 1		MESSAGE 2	
SILVER LANE TO BE CLOSED	MM/DD TO MM/DD	SILVER LANE CLOSED	FOLLOW DETOUR

DETOUR LEGEND:

- WORK ZONE
- DETOURED TRAFFIC FLOW
- SILVER LANE WESTBOUND DETOUR ROUTE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III
- REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN



SILVER LANE WESTBOUND DETOUR PLAN

SCALE: 1"=400'

REV	DATE	REVISION DESCRIPTION	BHDOT NO.	THE INFORMATION INCLUDING ESTIMATED QUANTITIES OF QUANTITIES ON THESE SHEETS IS BASED ON GENERAL INVESTIGATIONS OF THE STATE AND IS MAP INDICATIVE TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE ENCOUNTERED.	Plotted Date: 5/1/2018	DESIGNED/DRAFTED: TGC; CHECKED: MWD/JAK; SCALE AS NOTED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	DESIGNATED BY: BLOCK:	PROJECT TITLE: RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB	CITY/TOWN: HARTFORD EAST HARTFORD; DRAWING TITLE: SILVER LANE WB DETOUR PLAN	PROJECT NO. 63-703; DRAWING NO. DTR-08; SHEET NO. 04.01.15.009

DETOUR NOTES:

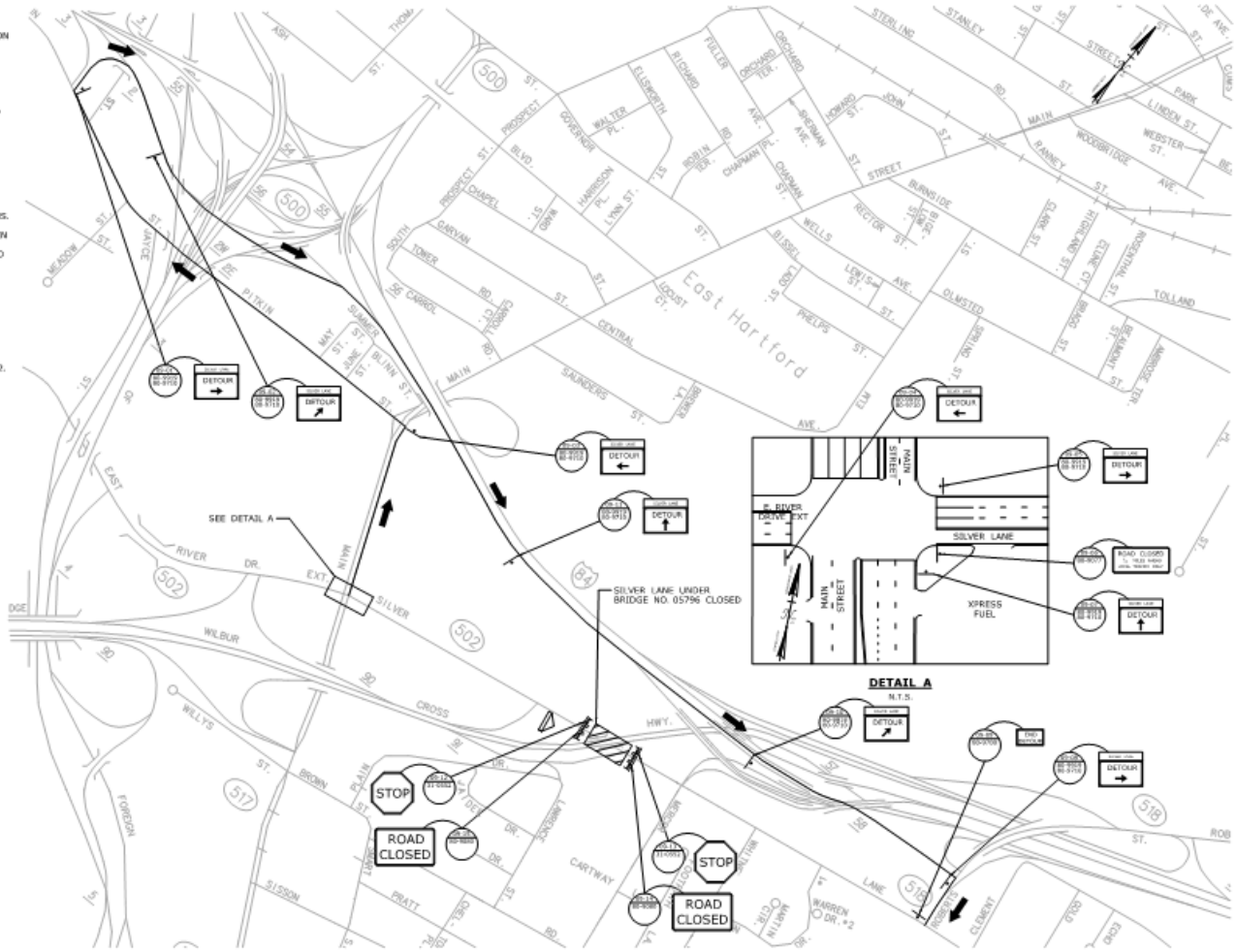
1. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
2. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, AND THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
3. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
4. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
5. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
6. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
7. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
8. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
9. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
10. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
11. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN AT EASTBOUND SILVER LANE TO ALERT DRIVERS OF THE CLOSURE.

CHANGEABLE MESSAGE SIGN:

PRIOR TO CONSTRUCTION		DURING CONSTRUCTION	
MESSAGE 1		MESSAGE 2	
SILVER LANE TO BE CLOSED	MM/DD TO MM/DD	SILVER LANE CLOSED	FOLLOW DETOUR

DETOUR LEGEND:

- WORK ZONE
- DETOURED TRAFFIC FLOW
- SILVER LANE EASTBOUND DETOUR ROUTE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III
- REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN



DETAIL A
N.T.S.

SILVER LANE EASTBOUND DETOUR PLAN
SCALE: 1"=400'

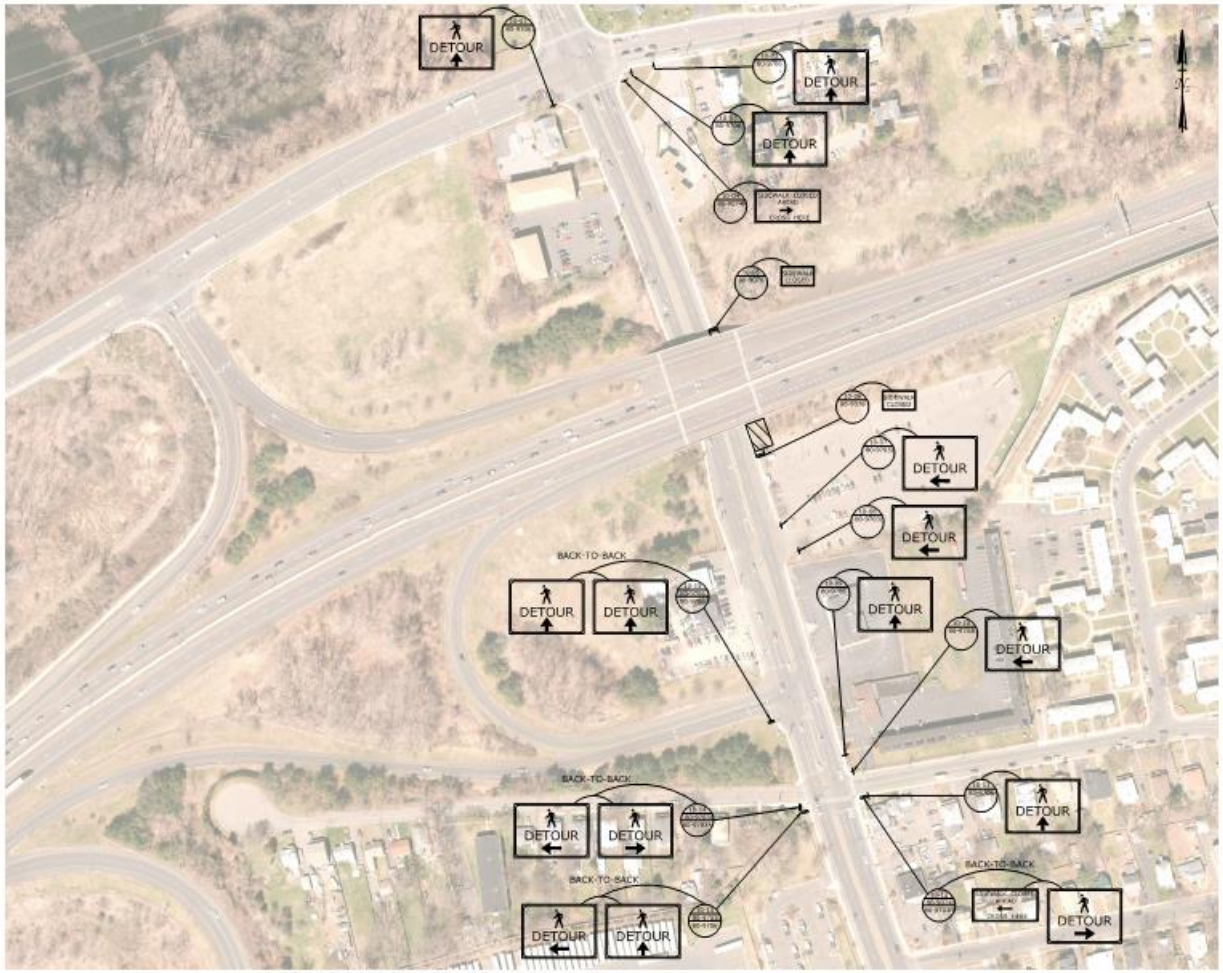
REV.	DATE	REVISION DESCRIPTION	BY/DT MD.	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. Plotted Date: 5/1/2018	DESIGNED/DRAFTED: TGC; CHECKED BY: MWD/JAK; SCALE AS NOTED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB	HARTFORD EAST HARTFORD	PROJECT NO. 63-703; DRAWING NO. DTR-09; UNIT NO. 04.01.15.010
						SILVER LANE EB DETOUR PLAN	

DETOUR NOTES:

1. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
2. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, AND THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
3. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
4. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
5. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
6. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
7. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
8. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
9. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.

DETOUR LEGEND:

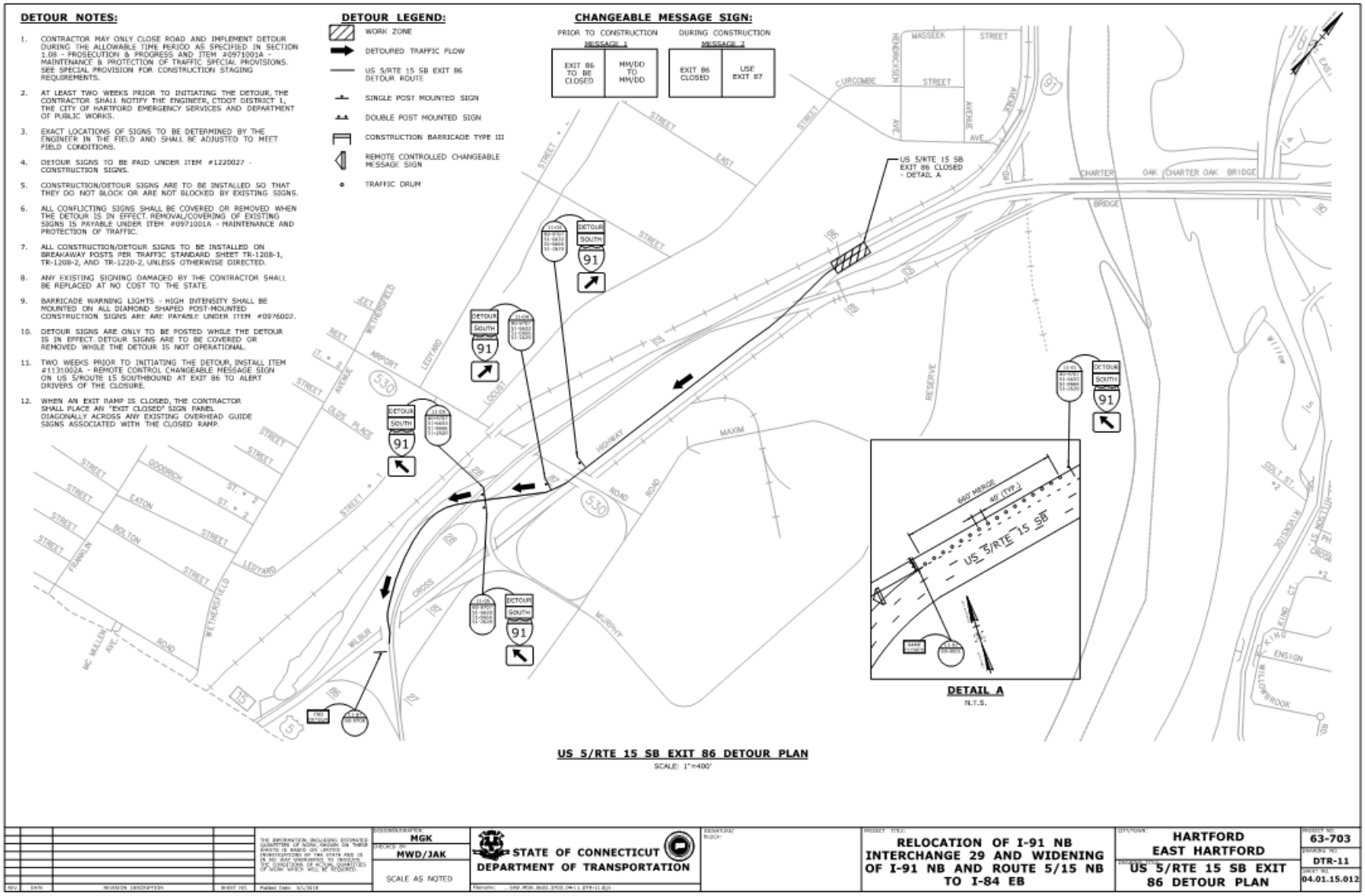
- WORK ZONE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III



MAIN STREET PEDESTRIAN DETOUR PLAN

SCALE: 1"=100'

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ROAD, QUANTITIES OF WORK WHICH WILL BE ENCOUNTERED.	DESIGNED/DRAWN: MGK CHECKED BY: MWD/JAK SCALE AS NOTED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB	CITY/TOWN: HARTFORD, EAST HARTFORD DRAWING TITLE: MAIN STREET PEDESTRIAN DETOUR	PROJECT NO.: 63-703 DRAWING NO.: DTR-10 SHEET NO.: 04.01.15.011


DETOUR NOTES:
1. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
2. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, THE CITY OF HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
3. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
4. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
5. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
6. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
7. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
8. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
9. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
10. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
11. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002A - REMOTE CONTROL CHANGEABLE MESSAGE SIGN ON US 5/ROUTE 15 SOUTHBOUND AT EXIT 86 TO ALERT DRIVERS OF THE CLOSURE.
12. WHEN AN EXIT RAMP IS CLOSED, THE CONTRACTOR SHALL PLACE AN "EXIT CLOSED" SIGN PANEL DIAGONALLY ACROSS ANY EXISTING OVERHEAD GUIDE SIGNS ASSOCIATED WITH THE CLOSED RAMP.
DETOUR LEGEND:
WORK ZONE
DETOURED TRAFFIC FLOW
US 5/RTE 15 SB EXIT 86 DETOUR ROUTE
SINGLE POST MOUNTED SIGN
DOUBLE POST MOUNTED SIGN
CONSTRUCTION BARRICADE TYPE III
REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN
TRAFFIC DRUM
CHANGEABLE MESSAGE SIGN:
PRIOR TO CONSTRUCTION
MESSAGE 1
EXIT 86 TO BE CLOSED
MM/DD TO MM/DD
DURING CONSTRUCTION
MESSAGE 2
EXIT 86 CLOSED
USE EXIT 87
US 5/RTE 15 SB EXIT 86 CLOSED - DETAIL A
DETOUR
SOUTH
91
DETAIL A
N.T.S.
US 5/RTE 15 SB EXIT 86 DETOUR PLAN
SCALE: 1"=400'
DESIGNED/DRAWN: MGK
CHECKED BY: MWD/JAK
SCALE AS NOTED
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
PROJECT TITLE:
RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB
LOCATION:
HARTFORD
EAST HARTFORD
DESCRIPTION:
US 5/RTE 15 SB EXIT 86 DETOUR PLAN
PROJECT NO.
63-703
DRAWING NO.
DTR-11
SHEET NO.
04.01.15.012

DETOUR NOTES:

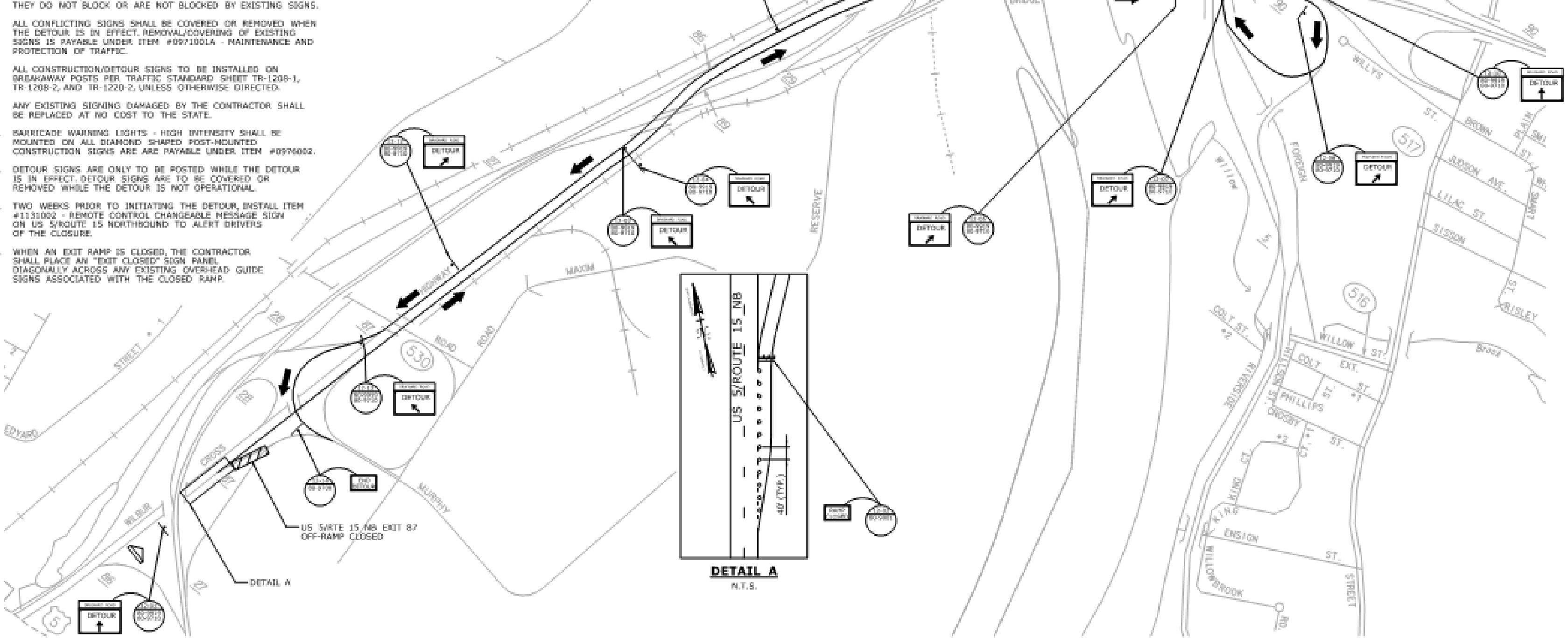
1. SEE MPT1A-05 FOR RAMP CLOSURE DETAILS.
2. CONTRACTOR MAY ONLY CLOSE ROAD AND IMPLEMENT DETOUR DURING THE ALLOWABLE TIME PERIOD AS SPECIFIED IN SECTION 1.08 - PROSECUTION & PROGRESS AND ITEM #0971001A - MAINTENANCE & PROTECTION OF TRAFFIC SPECIAL PROVISIONS. SEE SPECIAL PROVISION FOR CONSTRUCTION STAGING REQUIREMENTS.
3. AT LEAST TWO WEEKS PRIOR TO INITIATING THE DETOUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CTDOT DISTRICT 1, THE CITY OF HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS AND THE TOWN OF EAST HARTFORD EMERGENCY SERVICES AND DEPARTMENT OF PUBLIC WORKS.
4. EXACT LOCATIONS OF SIGNS TO BE DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
5. DETOUR SIGNS TO BE PAID UNDER ITEM #1220027 - CONSTRUCTION SIGNS.
6. CONSTRUCTION/DETOUR SIGNS ARE TO BE INSTALLED SO THAT THEY DO NOT BLOCK OR ARE NOT BLOCKED BY EXISTING SIGNS.
7. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. REMOVAL/COVERING OF EXISTING SIGNS IS PAYABLE UNDER ITEM #097100LA - MAINTENANCE AND PROTECTION OF TRAFFIC.
8. ALL CONSTRUCTION/DETOUR SIGNS TO BE INSTALLED ON BREAKAWAY POSTS PER TRAFFIC STANDARD SHEET TR-1208-1, TR-1208-2, AND TR-1220-2, UNLESS OTHERWISE DIRECTED.
9. ANY EXISTING SIGNING DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE STATE.
10. BARRICADE WARNING LIGHTS - HIGH INTENSITY SHALL BE MOUNTED ON ALL DIAMOND SHAPED POST-MOUNTED CONSTRUCTION SIGNS ARE ARE PAYABLE UNDER ITEM #0976002.
11. DETOUR SIGNS ARE ONLY TO BE POSTED WHILE THE DETOUR IS IN EFFECT. DETOUR SIGNS ARE TO BE COVERED OR REMOVED WHILE THE DETOUR IS NOT OPERATIONAL.
12. TWO WEEKS PRIOR TO INITIATING THE DETOUR, INSTALL ITEM #1131002 - REMOTE CONTROL CHANGEABLE MESSAGE SIGN ON US 5/ROUTE 15 NORTHBOUND TO ALERT DRIVERS OF THE CLOSURE.
13. WHEN AN EXIT RAMP IS CLOSED, THE CONTRACTOR SHALL PLACE AN "EXIT CLOSED" SIGN PANEL DIAGONALLY ACROSS ANY EXISTING OVERHEAD GUIDE SIGNS ASSOCIATED WITH THE CLOSED RAMP.

DETOUR LEGEND:

- WORK ZONE
- DETOURED TRAFFIC FLOW
- US 5/RTE 15 NB EXIT 87 OFF-RAMP DETOUR ROUTE
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- CONSTRUCTION BARRICADE TYPE III
- REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN
- TRAFFIC DRUM

CHANGEABLE MESSAGE SIGN:

PRIOR TO CONSTRUCTION MESSAGE 1		DURING CONSTRUCTION MESSAGE 2	
EXIT 87 TO BE CLOSED	MM/DD TO MM/DD	EXIT 87 CLOSED	USE EXIT 90



US 5/ROUTE 15 NB EXIT 87 DETOUR PLAN

SCALE: 1"=400'

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: MGK
CHECKED BY: MWD/JAK
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

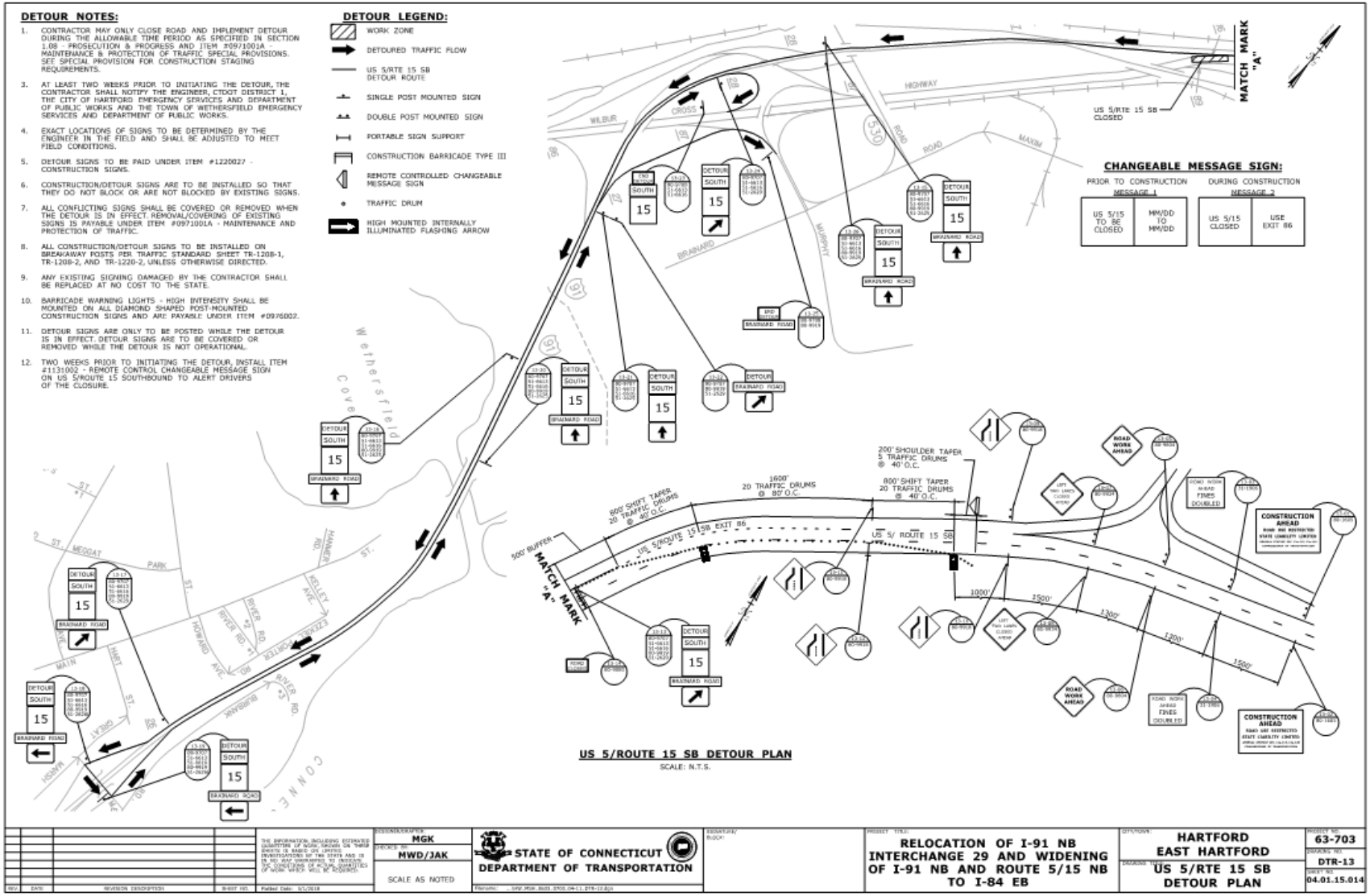
PROJECT TITLE: RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB

CITY/TOWN: HARTFORD EAST HARTFORD

DRAWING TITLE: US 5/RTE 15 NB EXIT 87 DETOUR PLAN

PROJECT NO. 63-703
DRAWING NO. DTR-12
SHEET NO. 04.01.15.013

CME



REV.	DATE	REVISION DESCRIPTION	W-DOT NO.	THE INFORMATION (INCLUDING ESTIMATED QUANTITIES OF WORK) SHOWN ON "AS-BUILT" SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OR ACCURACY/QUANTITIES OF WORK WHICH WILL BE ENCOUNTERED. Posted Date: 3/1/2018	DESIGNED/DRAWN: MGK; CHECKED: MWD/JAK; SCALE AS NOTED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	ESSAY/JOB/BLOCK:	PROJECT TITLE: RELOCATION OF I-91 NB INTERCHANGE 29 AND WIDENING OF I-91 NB AND ROUTE 5/15 NB TO I-84 EB	CITY/TOWN: HARTFORD EAST HARTFORD; DRAWING TITLE: US 5/RTE 15 SB DETOUR PLAN	PROJECT NO. 63-703; DRAWING NO. DTR-13; SHEET NO. 04.01.15.014

www.cmeengineering.com