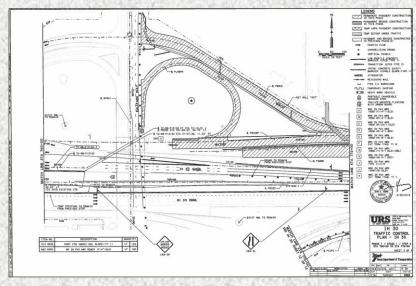
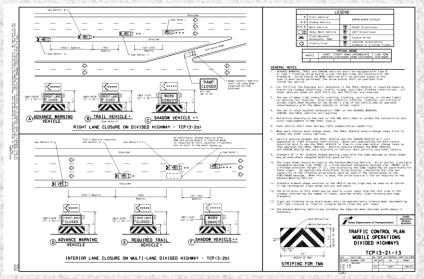


Key Contributors to TTC Litigation Risk

- Not having a TCP
- Not properly implementing a planned TCP
- Not maintaining an implemented TCP
- Others





Not Having a TCP – Equipment Mobilization

- If "..road user conditions are changed..." (MUTCD 6B.02(01)
- If so, it is a mobile operation
- Agency contractual requirements govern





Not Having a TCP – Utility Work

- Overreliance on "...simplified control procedures may be warranted for short-duration work."
- Consider implications if short duration activity would happen to exceed 1 hour







Not Having a TCP – Ignoring Equipment Positioning and Relocating Needs

- Short-term maintenance work can impact side streets and opposing traffic lanes
- Equipment operators may have limited visibility of approaching traffic



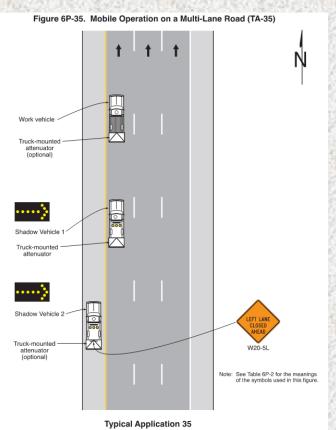
Improper TCP Implementation – Incorrect TTC Devices and Placement

- Wrong signs
 - Left v Right
 - Sizes
- Wrong tapers
- Failure to cover existing signs
- Unauthorized changes to the signed traffic control plan



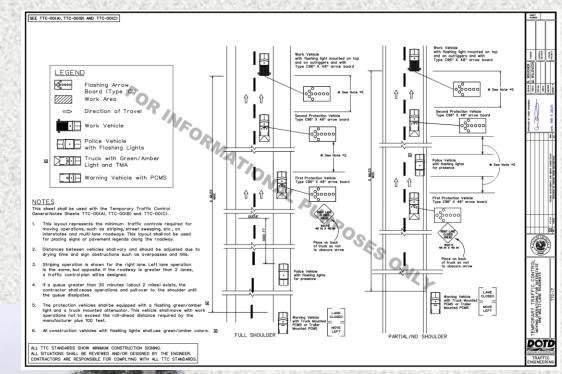
Improper TCP Implementation – Incorrect Position of Shadow Vehicles and TMAs

- Missing vehicles
- Closing a lane for a roadside work operation
- Positioning in front of law enforcement vehicles in travel lane



Improper TCP Implementation – Law Enforcement Positioning

- Failure to use if required in contract
- Positioning directly behind shadow vehicles/TMAs
- Positioning of multiple LE vehicles when queues present





Improper TCP Implementation – Unauthorized

TTC Additions/Changes

Unexpected sight distance restrictions

Improper barrier installation







Improper TCP Maintenance – Not Adjusting Advance Warning for Traffic Queues

- Contractual requirements influence level of responsibility
- What constitutes "warning" may vary







Improper TCP Maintenance – TTC Devices





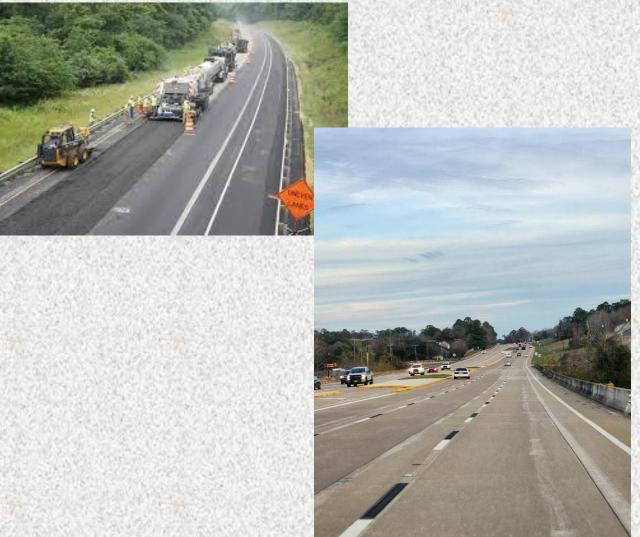






Improper TCP Maintenance – Pavement Markings

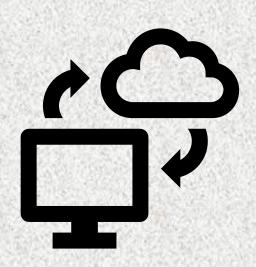
- Contractual requirements regarding replacement
- Removal quality



Other – Lack of Documentation

- "Handshake" agreements
- Field conversations of contractual changes
- Lack of digital backups





Other – Not Complying with Contractual Requirements

- Allowable workdays and times
- Lane closure permits
- Training documentation



The Country's												
Date	Employee's Name	Time In	Initials	Time Out	Initials	Supervisor's Signature						
_		+										
-		-										
_		+										
_		-										
		+										
-		+										

Other – Lack of Smart Work Zone Operation Documentation



					-			N.		
4	Α	В	С	D	Е	F	M	N	0	
4	D : .						A			
2	Devicel *	Name 💌	Locatio	Latitude	Longitu	Message	Message Activation Time/Date	Range + 15 Minutes	Range - 15 Minutes	
3	q	EB PCMS		30 11994	-93 8317	SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	2/26/2021 12:29	2/26/2021 12:44	2/26/2021 12:	
4		EB PCMS				ROAD WORK AHEAD^ROAD WORK AHEAD	2/26/2021 12:36		1 1	
5		EB PCMS				SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/1/2021 10:55			
6		EB PCMS		30.11994		STOPPED TRAFFIC 2 MILES^STOPPED TRAFFIC 2 MILES	3/1/2021 10:58			
7		EB PCMS		30.11994		SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/1/2021 10:59			
8	9	EB PCMS		30.11994	-93.8317	ROAD WORK AHEAD^ROAD WORK AHEAD	3/1/2021 11:00	3/1/2021 11:15	3/1/2021 10:	
9	9	EB PCMS		30.11994	-93.8317	SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/2/2021 7:57	3/2/2021 8:12	3/2/2021 7:	
10	9	EB PCMS		30.11994	-93.8317	ROAD WORK AHEAD^ROAD WORK AHEAD	3/2/2021 8:01	3/2/2021 8:16	3/2/2021 7:	
11	9	EB PCMS		30.11994	-93.8317	SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/2/2021 8:02	3/2/2021 8:17	3/2/2021 7:	
12	9	EB PCMS		30.11994	-93.8317	ROAD WORK AHEAD^ROAD WORK AHEAD	3/2/2021 8:05	3/2/2021 8:20	3/2/2021 7:	
13	9	EB PCMS		30.11994	-93.8317	SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/3/2021 11:26	3/3/2021 11:41	3/3/2021 11:	
14	9	EB PCMS		30.11994	-93.8317	STOPPED TRAFFIC 2 MILES^STOPPED TRAFFIC 2 MILES	3/3/2021 11:41	3/3/2021 11:56	3/3/2021 11:	
15	9	EB PCMS		30.11994	-93.8317	SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/3/2021 11:46	3/3/2021 12:01	3/3/2021 11:	
16	9	EB PCMS		30.11994	-93.8317	STOPPED TRAFFIC 2 MILES^STOPPED TRAFFIC 2 MILES	3/3/2021 11:52	3/3/2021 12:07	3/3/2021 11:	
17	9	EB PCMS		30.11994	-93.8317	SLOW TRAFFIC 1 MILE^SLOW TRAFFIC 1 MILE	3/3/2021 11:54			
18	9	EB PCMS		30.11994	-93.8317	STOPPED TRAFFIC 2 MILES^STOPPED TRAFFIC 2 MILES	3/3/2021 12:03	3/3/2021 12:18		
19	9	EB PCMS		30.11994		SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/3/2021 12:08			
20		EB PCMS		30.11994		STOPPED TRAFFIC 2 MILES^STOPPED TRAFFIC 2 MILES	3/3/2021 12:10			
21		EB PCMS		30.11994		SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/3/2021 12:13			
22		EB PCMS		30.11994		SLOW TRAFFIC 1 MILE^SLOW TRAFFIC 1 MILE	3/3/2021 12:16			
23		EB PCMS		30.11994		STOPPED TRAFFIC 1 MILE^SLOW TRAFFIC 1 MILE	3/3/2021 12:17			
24		EB PCMS		30.11994		SLOW TRAFFIC 1 MILE^SLOW TRAFFIC 1 MILE	3/3/2021 12:27			
25		EB PCMS		30.11994		SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES	3/3/2021 12:29			
26		EB PCMS		30.11994		STOPPED TRAFFIC 2 MILES^STOPPED TRAFFIC 2 MILES	3/3/2021 12:30			
27		EB PCMS		30.11994		SLOW TRAFFIC 1 MILE^SLOW TRAFFIC 1 MILE	3/3/2021 12:35			
28	9	EB PCMS		30.11994	-93.8317	SLOW TRAFFIC 2 MILES^SLOW TRAFFIC 2 MILES EB WB +	3/3/2021 12:37	3/3/2021 12:52	3/3/2021 12:	

Other – Inadequate Training

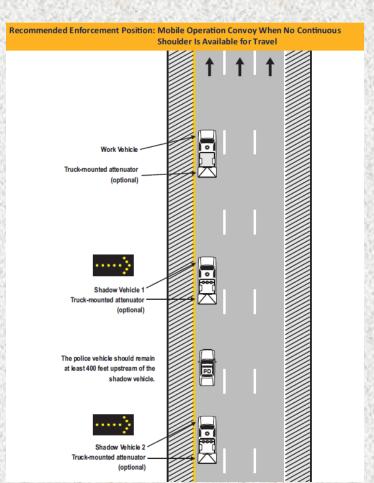
- Over-reliance upon on-the-job training
- Keep an eye on non-roadwayspecific subcontractors





Other – Lack of/Inadequate Communications Capabilities





Key Takeaways

- Know what's in the contract (and adhere to it ad infinitum)
- Driver error does not guarantee contractor "immunity" against litigation
- Inspect, inspect, inspect
- Document, document, document
- Emphasize constant situational awareness in staff training





Questions?

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