

Memorandum

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CC	Aruna Bodduna		
Subject	Categorization of Proposed Mitigations		
From	Jim Lightbody, P.E.		
Date	May 1, 2012		

This memorandum summarizes the methodology used in categorizing the Transportation mitigations for Merced to Fresno HST Section. The purpose of this memo is to understand the timing of mitigations, since some are required in conjunction with the initial construction of the HST alignment, while others are needed when the station operations begin (i.e. additional impacts due to vehicles arriving at the stations).

First level of categorization involves identifying locations (intersections and roadway segments) that would be impacted due to the roadway infrastructure modifications (because of the proposed HST alignment) separate from those resulting from the HST station operations (i.e., mitigations that would be required after the Merced/Fresno station operations begin).

Second level of categorization involves identifying locations that would be within the Initial Construction Segment (ICS) (i.e., south of Madera to Fresno Station) and those that would not be within ICS.

The mitigation category table is based on mitigations measures identified for future (2035) plus project conditions, with the exception of two intersections that are based on existing plus project conditions mitigations. These two locations (Intersection # 39 – 16th St/Canal St in the vicinity of Merced Station and Intersection 33-0 - Divisadero Street/SR 41 Northbound Ramps in the vicinity of Fresno Station) are impacted only under existing plus project conditions, but not under the future (2035) conditions.

In the vicinity of Merced Station, all locations are impacted under both parking options A and B unless otherwise indicated in the attached table. In the vicinity of Fresno Station, all locations are impacted under both Tulare Street Underpass and Overpass option unless otherwise indicated in the attached table.

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Mitigation Category Table

No	Mitigation Location (Intersection/Roadway Segment)	Roadway		Station	
		1 A (ICS)	1 B (Non-ICS)	2 A (ICS)	2 B (Non-ICS)
Merced Station¹					
Intersection					
1	16 th St / SR-59				x
3	13 th St – SR-99 SB Off-Ramp / V St				x
6	16 th St / V St				x
14	15 th St / M St				x
18	Childs Ave / Martin Luther King Way				x
20	SR-99 SB Ramps / Martin Luther King Way		x		
21	SR-99 NB Ramps / Martin Luther King Way		x		
22	14 th St / Martin Luther King Way		x		
24	16 th St / Martin Luther King Way		x		
25	13 th St / G St		x		
26	SR-99 – 14 th St / G St		x		
31	SR-99 NB Off-Ramp / Yosemite Pkwy (SR-140)		x		
32	Motel Dr / Glen Ave / Yosemite Pkwy (SR-140)				x
33	14 th St / O St (Option A only)				x
34	13 th St / M St				x
35	14 th St / M St				x
38	15 th St / Canal St				x
39	16 th St / Canal St ²				x
40	11th St / Martin Luther King Wy				x
44	Main St / H St		x		
46	Main St / G St				x
Segment					
-	Main St, between Yosemite Pkwy (SR140) and G St		x		
-	16th St, between R St and M St			x	
-	16th St, between Martin Luther King Jr. Way and M St			x	
-	V St, west of 13 th St (Option B only)			x	
-	V St, 13 th St to 16 th St (Option B Only)			x	
-	M St, between 13th St and 16th St			x	
-	Martin Luther King Jr. Way, between Childs Ave and 13th St			x	
-	G St, between 13th St and 16th St		x		
Fresno Area (North of Clinton)					
Intersection					
Between Herndon Ave and Shaw Ave (Carnegie Closure)					
1	Golden State Blvd / Santa Ana Ave	x			
2	Cornelia Ave / Santa Ana Ave	x			
3	Cornelia Ave / Shaw Ave	x			
5	Blyth Ave / Shaw Ave	x			

No	Mitigation Location (Intersection/Roadway Segment)	Roadway		Station	
		1 A (ICS)	1 B (Non-ICS)	2 A (ICS)	2 B (Non-ICS)
7	Cornelia Ave / Golden State Blvd	x			
9	Figarden Dr / Bullard Ave	x			
14	Veterans Blvd / Bullard Ave	x			
15	Veterans Blvd / Golden State Blvd connector	x			
SR 99 Realignment					
5	Clinton Ave / Brawley Ave	x			
6	Clinton Ave / Marks Ave	x			
8	Clinton Ave / SR 99 SB Ramps	x			
10	Clinton Ave / Weber Ave	x			
14	Shields Ave / Brawley Ave	x			
15	Dakota Ave / Brawley Ave	x			
16	Ashlan Ave – SR 99 SB Ramps / Parkway Dr	x			
Segment					
Between Herndon Ave and Shaw Ave (Carnegie Closure)					
5	Veterans Blvd, between Golden State Blvd and Bullard Ave	x			
Fresno Area (South of Clinton)					
Intersection					
5	West Olive Ave / SR 99 SB Ramps	x			
6	West Olive Ave / SR 99 NB Ramps	x			
7	West Olive Ave / North West Ave	x			
10	West Belmont Ave / SR 99 SB Ramps	x			
11	West Belmont Ave / SR 99 NB Ramps	x			
Segment					
8	West Olive Ave, between SR-99 Ramps and North West Ave	x			
12	West Belmont Ave, between North Arthur Ave and SR-99 Ramps	x			
Fresno Station³					
Intersection					
2	Van Ness Ave/SR 41 NB Ramp			x	
6	SR 99 NB Ramps/Ventura Ave			x	
7	E St/Ventura Ave	x			
9	Broadway Ave/Ventura Ave	x			
10	Van Ness Ave/Ventura St			x	
21	H St/Kern St(Tulare Street Underpass Option only)			x	
22	E St/Tulare St(Tulare Street Overpass Option only)			x	
23	F St/Tulare St(Tulare Street Underpass Option only)	x			
25	H St/Tulare St(Tulare Street Underpass Option only)	x			
26	Van Ness Ave/Tulare St(Tulare Street Underpass Option only)			x	
30	U St/Tulare St			x	
33-0	Divisadero Street/SR 41 Northbound Ramps ²			x	

No	Mitigation Location (Intersection/Roadway Segment)	Roadway		Station	
		1 A (ICS)	1 B (Non-ICS)	2 A (ICS)	2 B (Non-ICS)
37	SR 99 SB Ramps/Fresno St			x	
38	SR 99 NB Ramps/Fresno St			x	
42	Van Ness Avenue/Fresno St			x	
46	Fresno St/Divisadero St			x	
50	Van Ness Ave/Tuolumne St	x			
52	E St/Stanislaus St(Tulare Street Overpass Option only)	x			
53	Broadway St/Stanislaus St(Tulare Street Overpass Option only)	x			
54	Van Ness Ave/Stanislaus St (Tulare Street Underpass Option only)	x			
58	H St/San Joaquin St	x			
60	H St/Amador St	x			
63	H St/Divisadero St	x			
66	Van Ness Ave/Divisadero St			x	
67	H St/Roosevelt St	x			
68	N Blackstone Ave/E McKenzie Ave			x	
71	Van Ness Ave/SR 180 EB Ramps			x	
73	Van Ness Ave/SR 180 WB Ramps			x	
74	N Blackstone Ave/E Belmont Ave			x	
79	N Abby St/SR 180 EB Ramps			x	
80	N Blackstone Ave/SR 180 WB Ramps			x	
81	Broadway St/Amador St	x			
83	Fresno St/F St	x			
84	G St/Mono St (Tulare Street Underpass Option only)	x			
86	H St/Ventura St (Tulare Street Underpass Option only)	x			
92	S Van Ness Ave/E California Ave	x			
96	Golden State Blvd/E Church Ave	x			
101	S East Ave/Golden State Blvd	x			
102	Golden State Blvd/E Jensen Ave	x			
109	Stanislaus St/F St (Tulare Street Overpass Option only)	x			
110	Tuolumne St/F St (Tulare Street Overpass Option only)	x			
113	Stanislaus St/L St	x			
115	Stanislaus St/M St	x			
117	Stanislaus St/N St	x			
Segment					
4	H St, between Divisadero St and Stanislaus St	x			
11	Stanislaus St, between Broadway Street and E St	x			
16	Fresno St, between Van Ness Ave and Broadway St (Tulare Street Overpass Option only)			x	
17	Fresno St, between G St and SR 99 NB Ramps	x			
20	Tulare St, between Broadway St and			x	

No	Mitigation Location (Intersection/Roadway Segment)	Roadway		Station	
		1 A (ICS)	1 B (Non-ICS)	2 A (ICS)	2 B (Non-ICS)
	Van Ness Ave (Tulare Street Underpass Option only)				
22	Divisadero St, between N Fresno St and SR 41 Ramps			x	
31	Van Ness Ave, between Ventura Ave and SR 41 Ramps (Tulare Street Overpass Option only)	x			
45	Stanislaus St Between E St and F St (Tulare Street Overpass Option only)	x			
46	F St Between Stanislaus St and Tuolumne St (Tulare Street Overpass Option only)	x			
48	Stanislaus St Between G St and H St (Tulare Street Overpass Option only)	x			
50	Stanislaus St Between Broadway St and Fulton St	x			
54	Stanislaus St Between L St and M St (Tulare Street Underpass Option only)	x			
Total Intersections⁴		39 (38)	8	18 (17)	13
Total Roadway Segments⁴		8 (11)	2	8 (8) ⁵	0
Notes:					
1) In the vicinity of Merced Station, all locations are impacted under both parking options A and B, unless otherwise specified					
2) Location impacted only under existing plus project conditions, and not under Future (2035) plus project condition					
3) In the vicinity of Fresno Station, all locations are impacted under both Tulare Street Underpass and Overpass options, unless otherwise specified					
4) XX (XX) = Fresno Underpass (Fresno Overpass)					
5) Under Merced Station Parking option A conditions, Total Roadway Segments are 5 (5)					