APPENDIX 7: LIST OF TABLES

Alternative Life	САРМ	20-Yr	More than 20 years	
CAPM	20 years	35 years	55 years	
20-Yr	35 years	35 years	55 years	
More than 20 years	55 years	55 years	55 years	

Table 2-1 LCCA Analysis Periods

Table 2-2 Caltrans Climate Region Classification

Caltrans Climate Regions	Climate Regions for Pavement M&R Schedules
North Coast	
Central Coast	All Coastal
South Coast	
Inland Valley	Inland Valley
High Mountain	High Mountain
High Desert	and High
-	Desert
Desert	Desert
Low Mountain	Low Mountain
South Mountain	and South
	Mountain

Table 2-3 Priority Matrix

	Structural	MSL 1	MSL 2	MSL 3	
Ride Quality	Distress	Priority Number	Priority Number	Priority Number	
	Major	1	2	11	
Poor Ride	Minor	3	4	12	
	None	5	6	12	
	Major	7	8	13	
Acceptable Ride	Minor	9	10	14	
	None	31, 32, 33	31, 32, 33	31, 32, 33	
	No Distress	98, 99	98, 99	98, 99	

	Tw	o-Lane High	ways	Mu	Multi-Lane Highways			
Type of Terrain	Level	Rolling	Mountainous	Level	Rolling	Mountainous		
Free Flow Capacity (vphpl)	1,620	1,480	1,260	2,170	1,950	1,620		
Queue Dissipation Capacity (vphpl)	1,710	1,570	1,330	1,700	1,530	1,270		
Maximum AADT Per Lane	40,955	37,390	31,850	53,773	48,305	40,140		
Work Zone Capacity (vphpl) ⁽³⁾	1,050	960	820	1,510	1,360	1,130		
Maximum Queue Length	One or two ex 7.0 miles i queue leng	x its prior to the stimate of the st	ne work zone or ed maximum nan 7.0 miles	One or two exits prior to the work z or 5.0 miles if the estimated maxim queue length is longer than 5.0 mil				

Table 3-1 Traffic Input Values

Notes:

(1) Derived from Highway Capacity Manual 2000.

(2) Refer to the calculation procedures included in Appendix 5, "Traffic Inputs Estimation".

(3) Assumed one lane to be open for traffic in single-lane highways and two or more lanes to be open for traffic in multi-lane highways.

Year	US	LA CMSA ⁽¹⁾	SF CMSA ⁽²⁾	SD CMSA ⁽³⁾
1996	143.0	144.3	133.5	150.8
1997	144.3	145.2	133.6	152.2
1998	141.6	142.6	132.0	149.4
1999	144.4	146.8	135.8	152.1
2000	153.3	154.2	143.1	162.4
2001	154.3	155.3	143.7	164.9
2002	152.9	154.5	141.0	163.0
2003	157.6	160.3	144.9	168.0
2004	163.1	166.5	149.6	175.6
2005	173.9	174.8	156.1	185.5
2006	180.9	181.6	161.5	190.4
2007	184.7	183.2	166.6	193.2
2008	195.5	192.6	176.3	200.7
2009	179.3	178.6	166.7	184.7
2010	193.4	190.9	178.1	200.4
2011	212.4	207.8	190.8	222.7
2012	217.3	214.0	197.3	227.7

Table 3-2 Transportation Component Consumer Price Indexes

Notes:

* Source: US Department of Labor, Bureau of Labor Statistics

http://www.bls.gov/cpi/

 LA CMSA (Consolidated Metropolitan Statistical Area): includes counties of Los Angeles, Orange, Riverside, San Bernadino, & Ventura.

(2) SF CMSA (Consolidated Metropolitan Statistical Area): includes counties of Alameda,

Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, & Sonoma.

(3) SD CMSA (Consolidated Metropolitan Statistical Area): includes county of San Diego.

Final Pavement Surface							
Flexible	Rigid						
НМА	JPCP	CRCP					
HMA W/OGFC	JPCP CPR A	CRCP PR A					
HMA W/RHMA	JCPC CPR B	CRCP PR B					
RHMA	JCPC CPR C	CRCP PR C					
RHMA W/ RHMA O	Composite—HMA or RHM	1A over Rigid (crack, seat,					
	overlay)						

Table 3-3 Final Pavement Surface Choices

Table 3-4 Productivity Estimates of Typical Future Rehabilitation Strategies forFlexible Pavements

		Pavement		Average Lane-mile Completed Per Closure						
Final Surface	Future M&R	Design	Maintenance	Daily Closure	e (Weekday)	Co	ntinuous Clos	ure		
Туре	Alternative	Life	Service Level	5 to 7 Hour	8 to 12-	16		55-hour		
	1 Inclinative	(vears)		Closure	Hour	hour/Day	24 hour/day	Weekend		
		(Jears)		Closure Closure Operation Op		Operation	Closure			
САРМ										
нма	Overlay	5+	1,2,3	0.84	1.73	2.9	4.81	12.25		
Final Surface Image: Capm CAPM Image: Capm HMA Image: Capm Image: Capm HMA Image: Capm Image: Capm Image: Capm HMA Image: Capm Image: Capm Image: Capm Image: Capm HMA Image: Capm Image: Capm </td <td>Mill & Overlay</td> <td>5+</td> <td>1,2,3</td> <td>0.36</td> <td>0.75</td> <td>1.18</td> <td>2.21</td> <td>5.20</td>	Mill & Overlay	5+	1,2,3	0.36	0.75	1.18	2.21	5.20		
Final Surface Type CAPM HMA M RHMA-G M RHMA-G M RHMA-G M RHMA-G M HMA M	Overlay	5+	1,2,3	0.55	1.14	1.9	3.17	8.09		
	Mill & Overlay	5+	1,2,3	0.30	0.61	0.97	1.86	4.35		
HMA w/	Overlay	5+	1,2,3	0.55	1.14	1.9	3.17	8.09		
RHMA	Mill & Overlay	5+	1,2,3	0.30	0.61	0.97	1.86	4.35		
RHMA-G	Overlay	5+	1,2,3	1.12	2.32	3.86	6.41	16.33		
	Mill & Overlay	5+	1,2,3	0.48	1.00	1.56	2.93	6.88		
RHMA-G	Overlay	5+	1,2,3	0.84	1.73	2.9	4.81	12.25		
w/RHMA-O	Mill & Overlay	5+	1,2,3	0.34	0.72	1.14	2.17	5.13		
Rehabilitation										
	Overlay	10	1,2,3	0.47	0.98	1.63	2.72	6.94		
Final Surface TypeCAPMHMAHMAHMA w/OGFCHMA w/ RHMA-GRHMA-GRHMA-GHMAHMAHMARHMA-GRHMA-GRHMA-GRHMARHMARHMARHMARHMARHMARHMARHMARHMARHMARHMA-GRHMA-GRHMA-GRHMA-GRHMA-GRHMA-GRHMA-G		20	1,2,3	0.33	0.69	1.15	1.91	4.87		
	Mill & Overlay	10	1,2,3	0.21	0.45	0.73	1.37	3.23		
		20	1,2,3	0.15	0.31	0.49	0.93	2.18		
RHMA-G I RHMA-G I RHMA-G I W/RHMA-O I Rehabilitation I HMA I	Overlay	10	1,2,3	0.35	0.75	1.26	2.10	5.37		
HMA	Overlay	20	1,2,3	0.27	0.57	0.95	1.58	4.04		
w/OGFC	Mill & Overlay	10	1,2,3	0.19	0.39	0.64	1.23	2.9		
	will & Overlay	20	1,2,3	0.14	0.28	0.45	0.86	2.01		
	Overlay	10	1,2,3	0.35	0.75	1.26	2.1	5.37		
HMA	Overlay	20	1,2,3	0.27	0.57	0.95	1.58	4.04		
w/RHMA	Mill & Overlay	10	1,2,3	0.19	0.39	0.64	1.23	2.90		
CAPM HMA HMA w/OGFC HMA w/ RHMA w/ RHMA-G RHMA-G RHMA-G RHMA-G W/RHMA-O Rehabilitation HMA HMA RHMA-G W/RHMA-O Rehabilitation HMA W/OGFC HMA W/RHMA RHMA-G W/RHMA RHMA-G RHMA-G RHMA-G RHMA-G RHMA-G	Will & Overlay	20	1,2,3	0.14	0.28	0.45	0.86	2.01		
	Overlay	10	1,2,3	0.84	1.73	2.90	4.81	12.25		
RHMA G	Overlay	20	1,2,3	0.55	1.14	1.90	3.17	8.09		
KIIMA-O	Mill & Overlay	10	1,2,3	0.37	0.75	1.18	2.21	5.20		
RHMA-G	Will & Overlay	20	1,2,3	0.25	0.52	0.84	1.58	3.73		
	Overlay	10	1,2,3	0.55	1.14	1.9	3.17	8.09		
RHMA-G	Overlay	20	1,2,3	0.40	0.83	1.41	2.36	6.03		
w/RHMA-O	Mill & Overlay	10	1,2,3	0.30	0.61	0.97	1.86	4.35		
HMA HMA w/OGFC HMA w/ RHMA-G RHMA-G RHMA-G w/RHMA-O Rehabilitation HMA w/OGFC HMA w/RHMA RHMA-G RHMA-G w/RHMA-O	will a Overlay	20	1,2,3	0.21	0.44	0.72	1.39	3.28		

Notes:

(1) Refer to Appendix 1, "Glossary and list of Acronyms" for definitions of terms used in the table.

(2) Production rates in the table are based on representative assumptions that are applied consistently throughout the table. These rates are only for calculating future user costs for the procedures in this manual and not for any other purpose. More project specific user costs for some freeway situations can be obtained from the CA4PRS software.

- (3) 24-hour continuous closure with 16 hours of operation per day
- (4) 24-hour continuous closure with 24 hours of operation per day
- (5) 55-hour extended closure over the weekend

Table 3-5 Productivity Estimates of Typical Future Rehabilitation Ramp Strategiesfor Flexible Pavements

		Pavement		Average Lane-mile Completed Per Closure					
Final Surface	Future M&R	Design	Maintananaa	Daily Closure	e (Weekday)	Continuous Closure			
Туре	Alternative	Life (years)	Service Level	5 to 7-Hour Closure	8 to 12- Hour Closure	16 hour/Day Operation	24 hour/day Operation	55-hour Weekend Closure	
САРМ									
	Overlay	5+	1,2,3	0.51	1.02	1.71	2.85	7.29	
пма	Mill & Overlay	5+	1,2,3	0.22	0.44	0.70	Impleted Per Closure Softward Softwa		
HMA W/OGEC	Overlay	5+	1,2,3	0.32	0.66	1.11	1.87	4.81	
	Mill & Overlay	5+	1,2,3	0.17	0.36	0.57	1.10	2.60	
HMA w/	Overlay	5+	1,2,3	0.32	0.66	1.11	1.87	4.81	
RHMA	Mill & Overlay	5+	1,2,3	0.17	0.36	0.57	1.10	2.60	
RHMA G	Overlay	5+	1,2,3	0.68	1.36	2.28	3.79	9.69	
RHMA-G	Mill & Overlay	5+	1,2,3	0.29	0.59	0.93	1.75	4.10	
RHMA-G	Overlay	5+	1,2,3	0.51	1.02	1.71	2.85	7.29	
w/RHMA-O	Mill & Overlay	5+	1,2,3	0.20	0.42	0.67	1.29	3.05	
Rehabilitation									
НМА	Overlay	10	1,2,3	0.28	0.57	0.96	1.61	4.13	
		20	1,2,3	0.19	0.40	0.68	1.13	2.90	
	Mill & Overlay	10	1,2,3	0.13	0.26	0.43	0.81	1.92	
	ivim & Overmy	20	1,2,3	0.09	0.18	0.29	0.55	1.30	
HMA HMA	Overlay	10	1,2,3	0.21	0.43	0.73	1.24	3.19	
HMA	over id y	20	1,2,3	0.15	0.33	0.55	0.93	2.40	
w/OGFC	Mill & Overlay	10	1,2,3	0.11	0.23	0.37	0.72	1.72	
	ivim & Overmy	20	1,2,3	0.08	0.16	0.26	ted Per Closure attemation of the second s	1.19	
	Overlay	10	1,2,3	0.21	0.43	0.73	1.24	3.19	
HMA	overag	20	1,2,3	0.15	0.33	0.55	0.93	2.40	
w/RHMA	Mill & Overlay	10	1,2,3	0.11	0.23	0.37	0.72	1.72	
	will a overay	20	1,2,3	0.08	0.16	0.26	0.51	1.19	
	Overlay	10	1,2,3	0.51	1.02	1.71	2.85	7.29	
DHMA C	o vormy	20	1,2,3	0.32	0.66	1.11	1.87	4.81	
КПМА-О	Mill & Overlay	10	1,2,3	0.22	0.44	0.70	1.32	3.10	
		20	1,2,3	0.15	0.31	0.50	0.94	2.22	
	Overlay	10	1,2,3	0.32	0.66	1.11	1.87	4.81	
CAPM HMA HMA w/OGFC HMA w/ RHMA-G RHMA-G RHMA-G w/RHMA-O HMA w/OGFC HMA w/RHMA RHMA-G RHMA-G	o vor my	20	1,2,3	0.23	0.49	0.82	1.39	3.58	
w/RHMA-O	Mill & Overlay	10	1,2,3	0.17	0.36	0.57	1.10	2.60	
	inim & Overay	20	1,2,3	0.12	0.26	0.42	Image: outrinuous Closure 24 hour/day W 24 hour/day W 0peration W 1.32 1 1.32 1 1.32 1 1.32 1 1.10 1 1.10 1 1.10 1 1.10 1 1.10 1 1.10 1 1.10 1 1.10 1 1.10 1 1.10 1 1.10 1 1.29 1 1.29 1 0.81 1 0.55 1 1.24 1 0.93 1 0.72 1 0.51 1 1.24 1 0.93 1 0.72 1 0.51 1 2.85 1 1.32 1 0.94	1.95	

Notes:

(1) Refer to Appendix 1, "Glossary and list of Acronyms" for definitions of terms used in the table.

(2) Production rates in the table are based on representative assumptions that are applied consistently throughout the table. These rates are only for calculating future user costs for the procedures in this manual and not for any other purpose. More project specific user costs for some freeway situations can be obtained from the CA4PRS software.

(3) 24-hour continuous closure with 16 hours of operation per day

(4) 24-hour continuous closure with 24 hours of operation per day

(5) 55-hour extended closure over the weekend

				Average Lane-mile Complete				Per Closure	
					Daily	Closure	Continuous Closure		
			Pavement	Maintenance					
			Design	Service Level	5 to 7-	8 to 12-	16	24	Weekend
Final Surface			Life		Hour	Hour	hour/day	hour/day	Closure
Type	Future M&R Alternative	e	(vears)		Closure	Closure	Operation	Operation	(55-Hour)
САРМ								• •	
	Flexible Overlay		5+	1.2.3	1.16	2.32	3.86	6.41	16.33
Flexible/	Flexible Overlay w/Salb	4-hr RSC			0.63	1.69	3.05	\sim	\sim
Composite	Replacements (FO+JPCP SR)	12-hr RSC	5+	1,2,3	\sim	\sim	1.90	4 37	12.66
		4-hr RSC	_		0.48	1 79	4 17	\sim	\sim
Rigid-Jointed	Concrete Pavement Rehab A	12-hr RSC	5+	1,2,3	\sim	\sim	1.07	3 93	16.11
Plain		4-hr RSC			0.67	2 51	5.84	\sim	\sim
Concrete	Concrete Pavement Rehab B	12-hr RSC	5+	123	\sim	\sim	1.50	5 51	22.56
Pavement		4-hr RSC		1,2,0	1.67	6.27	14.61		
(JPCP)	Concrete Pavement Rehab C	12-hr RSC	5+	123		0.27	3.75	13.77	56.40
Rigid-		4-hr RSC		1,2,0	0.08	0.17	0.66		
Continuously	Punchout Repair A	12-hr RSC	5+	1,2,3	0.00	0.17	0.00	0.67	4 51
Reinforced		4-br RSC			0.11	0.24	0.92	0.07	4.51
Conorato	Punchout Repair B	12 hr BSC	5+	1,2,3	0.11	0.24	0.92	0.04	6.21
Bayamant		12-III KSC			0.27	0.60	2.21	0.94	0.31
(CPCP)	Punchout Repair C	12 hr DSC	5+	1,2,3	0.27	0.00	2.31	2.24	15 79
(CRCP)		12-m KSC				\sim	0.96	2.34	13.78
Renabilitation	Elevible Overlay w/ Slab Benlacement	1	1			r			\sim
	$(\mathbf{FO} + \mathbf{JPCP} \mathbf{SR})$	4-hr RSC	10		0.31	0.89	1.66	\geq	\geq
	Flexible Overlay w/ Slab Replacement (FO + JPCP SR)	12-hr RSC	10	1,2,3	\succ	\succ	0.91	2.27	6.83
	Mill, Slab Replacement & Overlay (MSRO)	4-hr RSC	10		0.19	0.50	0.85	\geq	\ge
	Mill, Slab Replacement & Overlay (MSRO)	12-hr RSC	10	1,2,3	\succ	\succ	0.91	2.27	6.83
	Mill, Slab Replacement & Overlay (MSRO)	4-hr RSC	20	100	0.15	0.38	0.64	\succ	\succ
Composite	Mill, Slab Replacement & Overlay (MSRO)	12-hr RSC	20	1,2,3	\succ	\succ	0.49	1.10	2.82
	Crack, Seat, & Flexible Overlay		10		0.47	0.98	1.63	2.72	6.94
	(CSFOL)		20	1,2,3	0.44	0.75	1.26	2.10	5.37
			20		0.21	0.44	0.75	1.26	3.22
	Replace with Flexible		40	1,2,3	0.15	0.31	0.53	0.89	2.30
		4-hr RSC	20		0.02	0.08	0.18	$>\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	$>\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$
		12-hr RSC	20	1,2,3	$\left.\right\rangle$	\sim	0.09	0.16	0.65
	Replace with Composite	4-hr RSC	10		0.02	0.07	0.17	\sim	\sim
		12-hr RSC	40	1,2,3	\sim	\sim	0.08	0.15	0.60
Jointed Plain		4-hr RSC			0.03	0.07	0.17	\geq	\geq
Concrete	I DI I	12-hr RSC	20	1,2,3	\sim	\sim	0.04	0.16	0.62
Pavement	Lane Replacement	4-hr RSC	10		0.02	0.06	0.14	\geq	\geq
(JPCP)		12-hr RSC	40	1,2,3	\sim	\sim	0.05	0.14	0.53
Continuously		4-hr RSC			0.01	0.03	0.11	\sim	\sim
Reinforced		12-hr RSC	20	1,2,3	\sim	\sim	0.05	0.11	0.66
Concrete	Lane Replacement	4-hr RSC			0.01	0.03	0.10	\sim	\sim
Pavement		12-hr RSC	40	1,2,3	$>\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	\geq	0.04	0.10	0.63

Table 3-6 Productivity Estimates of Typical Future Rehabilitation for Rigid andComposite Pavements

FO = Flexible Overlay JPCP = Jointed Plain Concrete Pavement SR = Slab Replacement RSC = Rapid Set Concrete CRCP = Continuously Reinforced Concrete Pavement

Notes:

- (1) Refer to Appendix 1, "Glossary and list of Acronyms" for definitions of terms used in the table.
- (2) Production rates are based on the lower end of the representative assumptions for the range and are applied consistently throughout the table.

These rates are only for calculating future user costs for the procedures in this manual and not for any other purpose. More project specifics user cost for some freeway situations can be obtained from the CA4PRS software.

- (3) 24-hour continuous closure with 16 hours of operation per day
- (4) 24-hour continuous closure with 24 hours of operation per day
- (5) 55-hour extended closure over the weekend
- (6) Punchout Repair A involves **significant** punchout repairs and 0.15' of flexible overlay. It applies to continuously reinforced concrete pavement that had previous punchout repairs and a flexible overlay.
- (7) Punchout Repair B involves **moderate** punchout repair and 0.15' of flexible overlay. It applies to continuously reinforced concrete pavement where the total number of current and previous punchout repairs exceed 4 per mile.
- (8) Punchout Repair C involves **minor** punchout repairs and 0.15' of flexible overlay. It applies to continuously reinforced concrete pavement where the total number of current and previous punchout repairs do not exceed 4 per mile.
- (9) Precast panel concrete pavement is under development. See HQ LCCA Coordinator for assistance.

Table 3-7 Productivity Estimates of Typical Future Ramp Rehabilitation for Rigid andComposite Pavements

	Avera			Average I	Average Lane-mile Completed Per Closure				
					Daily	Closure	Continuo	us Closure	
			Pavement	Maintenance					
			Design	Service Level	5 to 7-	8 to 12-	16	24	Weekend
Final Surface			Life		Hour	Hour	hour/day	hour/day	Closure
Туре	Future M&R Alternative	•	(years)		Closure	Closure	Operation	Operation	(55-Hour)
САРМ									
Flexible/	Flexible Overlay		5+	1,2,3	0.27	0.54	0.85	1.61	3.78
Composite	Flexible Overlay w/Salb	4-hr RSC	5+	1.2.3	0.20	0.43	0.71	\geq	\geq
	Replacements (FO+JPCP SR)	12-hr RSC	-	, ,-	$\left\langle \right\rangle$	>>	0.52	1.16	3.06
Rigid-Jointed	Concrete Pavement Rehab A	4-hr RSC	5+	1.2.3	0.28	0.60	1.26	\geq	\geq
Plain		12-hr RSC	5.	-,-,-	$>\!$	> <	0.39	1.21	4.63
Concrete	Concrete Pavement Rehab B	4-hr RSC	5+		0.40	0.84	1.76	\geq	\geq
Pavement		12-hr RSC	5.	1,2,3	$\left.\right\rangle$	>>	0.54	1.68	6.43
(IPCP)	Concrete Pavement Rehab C	4-hr RSC	5+		0.99	2.10	4.41	>	\geq
(51 01)	Concrete Fuvenient Techab C	12-hr RSC	5.	1,2,3	>	$>\!\!\!\!>$	1.35	4.20	16.08
Rigid-	Punchout Renair A	4-hr RSC	5+	123	0.06	0.13	0.54	$>\!$	$>\!\!\!>$
Continuously	r unenour reepuit re	12-hr RSC	5.	1,2,5	$>\!\!\!>$	>>	0.27	0.54	3.40
Reinforced	Punchout Renair B	4-hr RSC	5+	123	0.08	0.18	0.76	$>\!\!\!>$	$>\!\!\!>$
Concrete		12-hr RSC	51	1,2,5	$>\!$	$>\!\!\!\!>$	0.26	0.76	4.76
Pavement	Punchout Panair C	4-hr RSC	5.1	1.2.2	0.21	0.45	1.89	\geq	\geq
(CRCP)	i unchout Repair C	12-hr RSC	51	1,2,5	$>\!\!\!>$	\geq	0.93	1.89	11.91
Rehabilitation	1	•							
	Flexible Overlay w/ Slab Replacement	4-br RSC			0.03	0.07	0.13	\sim	\searrow
	(FO + JPCP SR)	4-m KSC	10	1,2,3	0.05	0.07	0.15	\leq	\leq
	Flexible Overlay w/ Slab Replacement (FO + JPCP SR)	12-hr RSC			$>\!$	\geq	0.04	0.13	0.49
	Mill, Slab Replacement & Overlay	4-hr RSC			0.03	0.06	0.12	\geq	\geq
	Mill, Slab Replacement & Overlay	12-hr RSC	10	1,2,3	\succ	\searrow	0.04	0.12	0.45
	Mill, Slab Replacement & Overlay	4-hr RSC			0.03	0.06	0.11	\sim	\sim
Flexible /	(MSRO)		20	1,2,3			****	$\langle \ \rangle$	\leq
Composite	(MSRO)	12-hr RSC			>	\geq	0.04	0.12	0.42
	Crack, Seat, & Flexible Overlay		10	123	0.28	0.57	0.96	1.61	4.13
	(CSFOL)		20	1,2,5	0.21	0.43	0.73	1.24	3.19
	Replace with Elevible		20	123	0.12	0.26	0.43	0.74	1.91
	Replace with r lexible		40	1,2,5	0.08	0.18	0.31	0.52	1.37
		4-hr RSC	20	1.2.2	0.01	0.05	0.11	\geq	\geq
	Penlace with Composite	12-hr RSC	20	1,2,5	$>\!\!\!>$	\geq	0.04	0.10	0.39
	Replace with Composite	4-hr RSC	40	1.2.2	0.01	0.04	0.10	\geq	\geq
		12-hr RSC	40	1,2,5	>	\triangleright	0.04	0.09	0.36
Jointed Plain		4-hr RSC	20	1.2.2	0.01	0.04	0.10	\geq	\geq
Concrete	Lana Bankaamant	12-hr RSC	20	1,2,5	>	\geq	0.04	0.09	0.37
Pavement		4-hr RSC	40	1.2.2	0.01	0.04	0.09	\geq	\geq
(JPCP)		12-hr RSC	40	1,2,3	$>\!$	\geq	0.03	0.08	0.33
Continuously		4-hr RSC	20		0.01	0.02	0.06	\geq	\geq
Reinforced	Laws Dauls a sus sut	12-hr RSC	1 20	1,2,3	$>\!$	\geq	0.03	0.06	0.40
Concrete	Lane Replacement	4-hr RSC	40	1.2.2	0.01	0.02	0.06	\geq	\geq
Pavement		12-hr RSC	40	1,2,5	$>\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	\geq	0.03	0.06	0.38

FO = Flexible Overlay JPCP = Jointed Plain Concrete Pavement SR = Slab Replacement RSC = Rapid Set Concrete CRCP = Continuously Reinforced Concrete Pavement

Notes:

(1) Refer to Appendix 1, "Glossary and list of Acronyms" for definitions of terms used in the table.

(2) Production rates are based on the lower end of the representative assumptions for the range and are applied consistently throughout the table.

These rates are only for calculating future user costs for the procedures in this manual and not for any other purpose. More project specifics user cost for some freeway situations can be obtained from the CA4PRS software.

- (3) 24-hour continuous closure with 16 hours of operation per day
- (4) 24-hour continuous closure with 24 hours of operation per day
- (5) 55-hour extended closure over the weekend
- (6) Punchout Repair A involves significant punchout repairs and 0.15' of flexible overlay. It applies to continuously reinforced concrete pavement that had previous punchout repairs and a flexible overlay.

(7) Punchout Repair B involves **moderate** punchout repair and 0.15' of flexible overlay. It applies to continuously reinforced concrete pavement where the total number of current and previous punchout repairs exceed 4 per mile.

(8) Punchout Repair C involves **minor** punchout repairs and 0.15' of flexible overlay. It applies to continuously reinforced concrete pavement where the total number of current and previous punchout repairs do not exceed 4 per mile.

(9) Precast panel concrete pavement is under development. See HQ LCCA Coordinator for assistance.