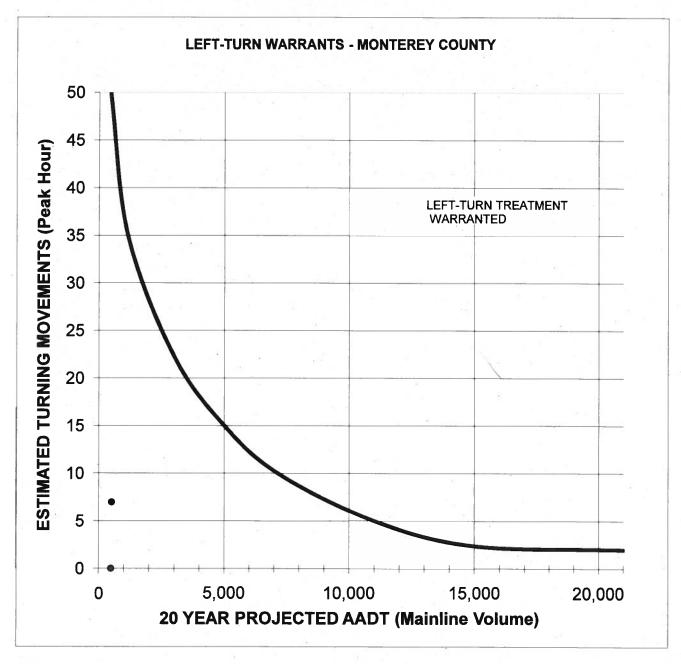
ATTACHMENT A INTERSECTION CHANNELIZATION WARRANT WORKSHEETS

Paraiso Springs Road/Clark Road

Paraiso Springs Road/Clark Road Southbound Direction



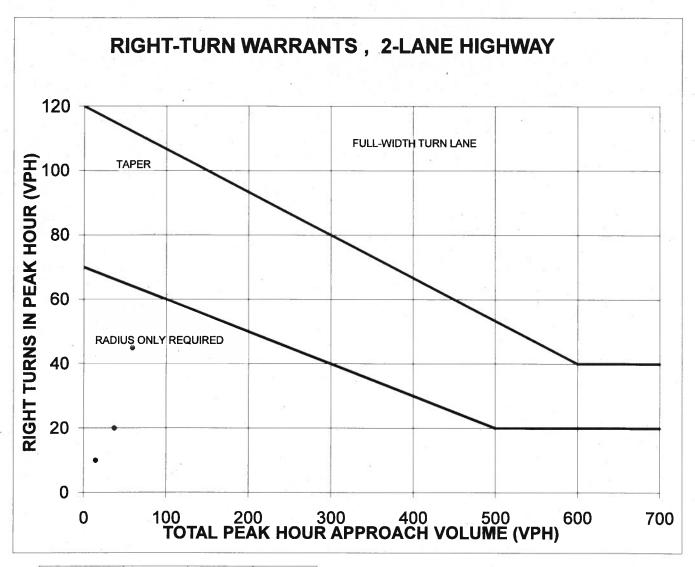
	Analysis Scenario	Left Turn Volume	20-Yr. Mainline Volume	Warrant Met?
A.	Cumulative AM	0	500	No
B.	Cumulative PM	0	500	No
C.	Cumulative Saturday	7	500	No

Adapted from Monterey County Left Turn Policy, adopted on February 26, 1980.

Note: Warrant is met if dot is above and to the left of curve shown above.



Paraiso Springs Road/Clark Road Northbound Direction



Scenario		Total	Right-Turning	Warrant Met?	
A.	Cumulative AM	14	10	No	
В.	Cumulative PM	37	20	No	
C.	Cumulative Sat	59	45	No	

Source: Transportation Research Board, "Intersection Channelization Guide", NCHRP Report 287, November, 1985, p. 64.

Note: For posted speeds at or under 45 mph, peak hour right turns greater than 40 vph, and total peak hour approach less than 300 vph, adjust right turn volumes.

Adjust peak hour right turns = peak hour right turns - 20.



ATTACHMENT B PREDICTED AVERAGE CRASH FREQUENCY CALCULATION WORKSHEETS

Arroyo Seco Road/Clark Road Intersection

		CAN - Gene	rai information	and Input Data for Rural Two	Lane Two-Way Roadway	Intersections		
	General Information		Early Line of			Location Informati	on	
Analyst Agency or Company Date Performed		DT HMM 08/25/11		Roadway Intersection Jurisdiction		Arroyo Seco Road Clark Road Monterey County		
Unsignalized three-leg (stop control on minor-road appre				Analysis Year	1991			
Input Data				Base Conditions	Site Conditions			277.04
Intersection type (3ST, 4ST, 4SG)			2				3ST	
AADT _{mejor} (veh/day)	AADT _{MAX} =	19,500	(veh/day)	-		Sales continue	1,000	
AADT _{minor} (veh/day)	AADT _{MAX} =	4,300	(veh/day)	-	83		THE REAL PROPERTY.	
	4ST, does skew differ for minor		No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled ap	proaches with a left-turn lane (0, 1	1, 2, 3, 4)		0	Charles and the same	STATE OF THE PARTY	0	10021
Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)			0	State of the state		0	1000	
intersection lighting (present/not present				Not Present			Not Present	
Calibration Factor, C				1.00	TO THE RESIDENCE OF THE PARTY O		1.00	

			2 4 10 40 4 40	
	Worksheet 2B – Cra	sh Modification Factors for Rural Two-Lar	ne Two-Way Roadway Intersections	
(1)	(2)	(3)	(4)	(5)
CMF for intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
CMF 1	CMF ₂₀	CMF _{3i}	CMF4	CMF _{COMB}
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1.11	1.00	1.00	1.00	1,11

		Norksheet 2C -	Intersection Cra	shes for Rural Two-Lane Tv	vo-Way Roadway Interse	ctions	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N apl 3ST, 4ST or 4SG	Overdispersion Parameter, k	Crash Severity Distribution	N spt 3ST, 4ST or 4SG by Severity Distribution	Combined CMFs	Calibration Factor, C	Predicted average crash frequency,
	from Equations 10-8, 10-9, or 10-10	from Section 10.6.2	from Table 10-5	(2) _{TOTAL} * (4)	from (5) of Worksheet 2B		(5)*(6)*(7)
otal	0,107	0.54	1.000	0.107	1.11	1,00	0.118
atal and injury (FI)	-	-	0.415	0.044	1.11	1,00	0,049
roperty Damage Only (PDO)	-	_	0.585	0.062	1.11	1.00	0.069

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(101AL)	N produced (set (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N produces int (Pg (crashes/year)	Proportion of Collision Type(PDO)	N produced int (PQO) (Crashes/year
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)=00 from Worksheet 2C
Total	1.000	0.118	1.000	0.049	1.000	0.069
		(2)x(3)total		(4)x(5)n		(6)x(7) _{PDO}
			SINGLE-V	EHICLE		0.00
ision with animal 0.019 0.002 0.008		0.008	0.000	0.026	0.002	
Collision with bicycle	0,001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.002	0.022	0.001	0.007	0.000
Ran off road	0.244	0.029	0.240	0.012	0.247	0.017
Other single-vehicle collision	0.016	0,002	0,011	0,001	0.020	0.001
Total single-vehicle crashes	0.294	0.035	0.283	0,014	0,302	0.021
		1911	MULTIPLE-	VEHICLE		
Angle collision	0.237	0.028	0.275	0.013	0.210	0.014
Head-on collision	0.052	0,006	0.081	0.004	0.032	0.002
Rear-end collision	0.278	0,033	0.260	0.013	0.292	0.020
Sideswipe collision	0.097	0.011	0.051	0.002	0.131	0.009
Other multiple-vehicle collision	0.042	0.005	0.050	0.002	0.033	0.002
l'otal multiple-vehicle crashes	0.706	0.083	0.717	0.035	0.698	0.048

Worksheet 2E — Summary Results for Rural Two-Lane Two-Way Road Intersections								
(1) (2)								
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)						
	(4) from Worksheet 2C	(8) from Worksheet 2C						
Total	1.000	0.1						
Fatal and Injury (FI)	0.415	0.0						
Property Damage Only (PDO)	0.585	0,1						

	ral Information	Aug I commence and the second	Locati	on Information	Control of the Control	
Analyst Agency or Company Date Performed	DT HMM 08/25/11	Roadway Intersection Jurisdiction		Arroyo Seco Road Clark Road Monterey County		
Unsignalized three-leg (stop control on minor-re		Analysis Year		1992		
Intersection type (3ST, 4ST, 4SG)	Input Data	Base Conditions	Site Conditions			
			Acres Acres Consultation	3ST		
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)		1,000			
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	_	Market Company of the Company of the State o			
intersection skew angle (degrees) [if 4ST, o		0	Skew for Leg 1 (All):	Skew for Leg 2 (4ST only):	0	
lumber of signalized or uncontrolled approach	0	Exemples a la company of the company				
Number of signalized or uncontrolled approach	0					
ntersection lighting (present/not present)		Not Present		Not Present	100	
Calibration Factor, C		1.00	The state of the s			

				1000						
	Worksheet 2B — Crash Modification Factors for Rural Two-Lane Two-Way Roadway Intersections									
(1)	(2)	(3)	(4)	(5)						
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF						
CMF ₁	CMF _{2i}	CMF ₃₄	CMF ₄	CMF COMB						
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)						
1.11	1,00	1.00	1,00	1,11						

	Worksheet 2C - Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Crash Severity Level	N spf 3ST, 4ST or 4SG			N spf 3ST, 4ST or 4SG by Severity		Calibration Factor, C	Predicted average crash frequency, N		
		Parameter, k	Distribution	Distribution	Combined CMFs		predicted int		
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		(F)e(P)e(T)		
	10-10	10,6.2	10-5	(Z)TOTAL (4)	2B		(5)*(6)*(7)		
Totai	0.107	0.54	1.000	0.107	1.11	1.00	0.118		
Fatal and Injury (FI)	_	-	0.415	0.044	1.11	1.00	0.049		
Property Damage Only (PDO)	-	-	0.585	0.062	1.11	1,00	0.069		

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of	N produced for (TOTAL)	Proportion of Collision	N processor are (FI) (crashes/year)	Proportion of Collision Type(PDO)	N producted and (PDO) (Crashes/year)
	Collision	(crashes/year)	Type _(Fi)			
	Type(TOTAL)					
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)= from Worksheet 2C	from Table 10-6	(8) _{PDO} from Worksheet 2C
otal	1,000	0.118	1.000	0.049	1,000	0.069
		(2)x(3)total	**************************************	(4)x(5)m	245	(6)x(7)eoo
			SINOLE-V	EHICLE		
offision with animal	0,019	0.002	0.008	0.000	0,026	0.002
ollision with bicycle	0,001	0.000	0.001	0.000	0,001	0.000
ollision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
verturned	0,013	0.002	0.022	0.001	0.007	0,000
tan off road	0.244	0.029	0.240	0.012	0.247	0.017
ther single-vehicle collision	0,016	0.002	0.011	0.001	0.020	0.001
otal single-vehicle crashes	0.294	0.035	0.283	0,014	0.302	0.021
			MULTIPLE:	VEHICLE		
ngle collision	0.237	0.028	0.275	0.013	0.210	0,014
ead-on collision	0.052	0.006	0.081	0.004	0.032	0.002
ear-end collision	0.278	0.033	0.260	0.013	0.292	0.020
ideswipe collision	0.097	0.011	0.051	0.002	0.131	0.009
ther multiple-vehicle collision	0.042	0.005	0.050	0.002	0.033	0.002
otal multiple-vehicle crashes	0.706	0.083	0.717	0,035	0.698	0.048

Worksheet 2E — Summary Results for Rural Two-Lane Two-Way Road Intersections								
(1)	(2)	(3)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)						
	(4) from Worksheet 2C	(8) from Worksheet 2C						
Total	1,000	0.1						
Fetal and Injury (FI)	0.415	0.0						
Property Damage Only (PDO)	0.585	0.1						

Ge	10 July 100	L	ocation Informa	ntion	10000		
Analyst Agency or Company Date Performed	DT HMM 08/25/11		Roadway Intersection Jurisdiction		Arroyo Seco Road Clark Road Monterey County		
Unsignalized three-leg (stop control on minor		Analysis Year Base Conditions		Challeng of the	1993 Site Conditions	111	
Intersection type (3ST, 4ST, 4SG)	Input Data		- Base Conditions	tunkeben men er m	TURE BY MAN	3ST	11000
AADT _{major} (velv/day)	AADT _{MAX} = 19,500 (veh/	day)		1,000			
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/	day)	-		Contract the Contract	83	
Intersection skew angle (degrees) [If 4ST		No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled approa-			0	THE RESIDENCE OF THE PARTY OF	A STATE OF THE PARTY OF	0	100
Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)			0	The state of the s			
Intersection lighting (present/not present)			Not Present	Not Present			
Calibration Factor, C			1.00	1.00			

		40.000	41-112/5 2	EN U							
	Worksheet 2B - Crash Modification Factors for Rural Two-Lane Two-Way Roadway Intersections										
(1)	(2)	(3)	(4)	(5)							
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF							
CMF 1	CMF _{2i}	CMF _{3i}	CMF ₄	CMF COMB							
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)							
1.11	1.00	1,00	1.00	1,11							

						1.00	1,11
		18 11		11 11 11 11		MI ALLES	THE A SECTION AND A SECTION AN
		Worksheet 2C -	Intersection Cra	shes for Rural Two-Lane Tv	vo-Way Roadway Inter	sections	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N apt 3ST, 4ST or 4SG	Overdispersion Parameter, k	Crash Severity Distribution	N _{apt 3ST, 4ST or 4SG} by Severity Distribution	Combined CMFs	Calibration Factor, C	Predicted average crash frequency, N
W 0.1	from Equations 10-8, 10-9, or 10-10	from Section 10.6.2	from Table 10-5	(2) _{TOTAL} * (4)	from (5) of Worksheet 2B		(5)*(6)*(7)
Total	0.107	0,54	1.000	0,107	1,11	1,00	0,118
Fatal and Injury (FI)	-	_	0.415	0.044	1.11	1,00	0.049
Property Damage Only (PDO)		_	0.585	0.062	1,11	1,00	0.069

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Collision Type	Proportion of Collision Typerrorau	N proteer as (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N productor for (crashes/year)	Proportion of Collision Type(1900)	N produced as (PDO) (Crashes/year	
0.5	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)roo from Worksheet 2C	
l'otal	1,000	0.118	1.000	0,049	1,000	0,069	
		(2)x(3)тоты		(4)x(5)n	il .	(6)x(7) _{PDO}	
			SINGLE-V	EHICLE			
Collision with animal	0,019	0.002	0.008	0,000	0,026	0.002	
Collision with bicycle	0.001	0.000	0.001	0,000	0.001	0,000	
Collision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000	
Overturned	0,013	0.002	0.022	0.001	0.007	0.000	
Ran off road	0.244	0,029	0.240	0,012	0.247	0.017	
Other single-vehicle collision	0,016	0.002	0.011	0.001	0.020	0.001	
l'otal single-vehicle crashes	0.294	0.035	0.283	0.014	0,302	0.021	
		53	MULTIPLE-	VEHICLE			
Ingle collision	0.237	0.028	0.275	0,013	0.210	0,014	
lead-on collision	0.052	0.006	0.081	0,004	0.032	0.002	
Rear-end collision	0.278	0.033	0.260	0,013	0.292	0.020	
deswipe collision	0,097	0,011	0.051	0.002	0.131	0.009	
Other multiple-vehicle collision	0,042	0.005	0.050	0.002	0.033	0.002	
Fotal multiple-vehicle crashes	0.706	0,083	0.717	0.035	0.698	0.048	

Worksheet 2E - Summary Results for Rural Two-Lane Two-Way Road Intersections								
(1)	(2)	(3)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)						
	(4) from Worksheet 2C	(8) from Worksheet 2C						
Total	1,000	0.1						
Fatal and Injury (FI)	0.415	0.0						
Property Damage Only (PDO)	0,585	0.1						

	ral Information	The second secon	Location Inform	nation	
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-r	DT HMM 08/25/11	Roadway Intersection Jurisdiction Analysis Year		Arroyo Seco Road Clark Road Monterey County 1994	
	nput Data	Base Conditions	Site Conditions		
ntersection type (3ST, 4ST, 4SG)		_	And with the Entire Contract of	3ST	
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)	-	1,000		10000
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	-	Restauration of the Control of the C	83	7,5
	oes skew differ for minor legs?] No	. 0	Skew for Leg 1 (All): 25	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled approach		0	processing the second s	0	
Number of signalized or uncontrolled approach	es with a right-turn lane (0, 1, 2, 3, 4)	0	0		
Intersection lighting (present/not present)		Not Present	NotPresent		
Calibration Factor, C		1.00	ENGINEERING CONTRACTOR		

	A			
1 = III	Worksheet 2B - Cra	sh Modification Factors for Rural Two-Land	Two-Way Roadway Intersections	
(1)	(2)	(3)	(4)	(5)
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
CMF 1	CMF _{2i}	CMF _{3k}	CMF.	CMF COMB
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1.11	1.00	1.00	1,00	1,11

Worksheet 2C Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)					
Crash Severity Level	N spf 38T, 48T or 49G			N spt 3ST, 4ST or 4SG by Severity		Calibration Factor, C	Predicted average crash frequency, N					
		Parameter, k	Distribution	Distribution	Combined CMFs		predicted int					
	from Equations 10-6, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		(DAME					
12 21111	10-10	10.6.2	10-5	(E)TOTAL (4)	2B		(5)*(6)*(7)					
Total	0.107	0.54	1.000	0,107	1,11	1.00	0.118					
Fatal and Injury (FI)	-	- "	0.415	0,044	1,11	1.00	0.049					
Property Damage Only (PDO)	-	_	0,585	0,062	1,11	1.00	0.069					

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(107AL)	N produced for (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N produced for (rn (crashes/year)	Proportion of Collision Type(1900)	N produced for (PDO) (crashes/year
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)PDD from Worksheet 2C
otal	1,000	0.118	1.000	0.049	1,000	0.069
		(2)x(3)total		(4)x(5)⊨		(6)x(7)≥00
	- 9		SINGLE-V	EHICLE		
ollision with animal	0,019	0.002	0.008	0.000	0,026	0.002
ollision with bicycle	0,001	0.000	0.001	0.001 0.000		0.000
ollision with pedestrian	0.001	0.000	0.001	0.000	0,001	0.000
Overturned	0,013	0.002	0.022	0.001	0.007	0.000
tan off road	0.244	0.029	0.240	0.012	0.247	0.017
Other single-vehicle collision	0,016	0.002	0.011	0,001	0.020	0,001
otal single-vehicle crashes	0.294	0.035	0.283	0,014	0.302	0.021
			MULTIPLE-	VEHICLE		
ngle collision	0.237	0.028	0.275	0.013	0.210	0.014
ead-on collision	0.052	0.006	0.081	0,004	0.032	0.002
ear-end collision	0.278	0.033	0.260	0.013	0.292	0.020
ideswipe collision	0.097	0.011	0.051	0,002	0,131	0.009
ther multiple-vehicle collision	0.042	0.005	0.050	0,002	0.033	0.002
otal multiple-vehicle crashes	0,706	0.083	0.717	0.035	0,698	0.048

Worksheet 2E — Summary Results for Rural Two-Lane Two-Way Road Intersections									
(1)	(2)	(3)							
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)							
	(4) from Worksheet 2C	(8) from Worksheet 2C							
Total	1.000	0.1							
Fatal and Injury (FI)	0,415	0.0							
Property Damage Only (PDO)	0.585	0.1							

	Worksheet 2	ZA – Gener	al information	and Input Data for Rural Two	-Lane Two-Way Roadway	Intersections		
General Info		-				Location Infor		
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-road appri		DT HMM 08/25/11		Roadway Intersection Jurisdiction Analysis Year	Arroyo Seco Road Clark Road Monterey County		Arroyo Seco Road Clark Road	
Input Da				Base Conditions	Site Conditions			
Intersection type (3ST, 4ST, 4SG)				_	DESIGN TRANSPORT	3ST		
AADT _{mejor} (veh/day)	AADT _{MAX} =	19,500	(veh/day)		William College		1,000	
AADT _{minor} (veh/day)	AADT _{MAX} =	4,300	(veh/day)			The Figure	83	
Intersection skew angle (degrees) [if 4ST, does skew	w differ for minor leg	187]	No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only): 0	
Number of signalized or uncontrolled approaches with a	left-turn lane (0, 1, 2	2, 3, 4)		0	CONTRACTOR STATE	The second second	THE OF SHIP IS AND ADDRESS OF SHIP IS NOT THE OWNER.	
Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)			0	O THE RESIDENCE OF THE PARTY OF				
Intersection lighting (present/not present)	11 11 111			Not Present	Not Present			
Calibration Factor, C				1,00	1,00			

7	=, 31	1.1 (2.2	- 11171		
	15	Worksheet 2B - Cras	h Modification Factors for Rural Two-Lane	Two-Way Roadway Intersections	19
	(1)	(2)	(3)	(4)	(5)
CMF	for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
	CMF 1	CMF _{2i}	CMF ₃	CMF ₄	CMF COMB
from	Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
	1.11	1.00	1,00	1.00	1,11

	١	Vorksheet 2C -	Intersection Cra	shes for Rural Two-Lane Tv	vo-Way Roadway Inter	sections	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N sof 3ST, 4ST or 4SG	Overdispersion	Crash Severity	N spt 3ST, 4ST or 4SG by Severity	10 H	Calibration Factor, C	Predicted average crash frequency, N
	-,,	Parameter, k	Distribution	Distribution	Combined CMFs		predicted int
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		/E14/E14(7)
	10-10	10.6.2	10-5	(Z)TOTAL (4)	28		(5)*(6)*(7)
Total	0.107	0.54	1.000	0,107	1,11	1.00	0.118
Fatal and injury (FI)	-		0.415	0.044	1,11	1.00	0.049
Property Damage Only (PDO)		-	0.585	0,062	1,11	1.00	0.069

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N present set (TOTAL) (crashes/year)	Proportion of Collision Type _(Ft)	N produced by (FI) (crashes/year)	Proportion of Collision Type(1900)	N producted let (PDO) (Crashes/year
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)Ppo from Worksheet 2C
Total .	1,000	0.118	1.000	0.049	1,000	0.069
		(2)x(3)total		(4)x(5)n		(6)x(7) _{PDO}
	74		SINGLE-V	EHICLE		1
Collision with animal	0,019	0.002	0.008	0.000	0,026	0.002
Collision with bicycle	0.001	0.000	0.001	0.000	0,001	0.000
Collision with pedestrian	0,001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.002	0.022	0.001	0,007	0.000
Ran off road	0.244	0.029	0.240	0.012	0.247	0.017
Other single-vehicle collision	0.016	0.002	0.011	0.001	0,020	0.001
Total single-vehicle crashes	0.294	0.035	0.283	0.014	0,302	0.021
			MULTIPLE.	VEHICLE		
Angle collision	0.237	0.028	0.275	0.013	0.210	0.014
lead-on collision	0.052	0.006	0.081	0.004	0.032	0.002
Rear-end collision	0.278	0.033	0.260	0.013	0.292	0.020
ideswipe collision	0.097	0.011	0.051	0.002	0.131	0.009
Other multiple-vehicle collision	0.042	0.005	0.050	0.002	0.033	0.002
Total multiple-vehicle crashes	0.706	0.083	0.717	0.035	0.698	0.048

	Worksheef 2E - Summary Results for Rural Two-Lane Two-Way Road Intersections										
(1)	(2)	(3)									
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)									
	(4) from Worksheet 2C	(8) from Worksheet 2C									
Total	1,000	0,1									
Fatal and Injury (FI)	0,415	0.0									
Property Damage Only (PDO)	0,585	0.1									

AL 1 3 252 SUPERSON	Worksheet 2A - General Informatio	on and Input Data for Rural Two	-Lane Two-Way Roadway Intersections		
Ge	neral Information		Location Informati	on	
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor	DT HMM 08/25/11	Roadway Intersection Jurisdiction Analysis Year	Arroyo Seco Road Clark Road Montery County 1996		
	Input Date	Base Conditions	Site Conditions		
Intersection type (3ST, 4ST, 4SG)			Report Research and Section 1 16 16 16 16	3ST	
AADT _{mator} (veh/day)	AADT _{MAX} = 19,500 (veh/day)			1,300	
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	-		83	
Intersection skew angle (degrees) [If 4ST	, does skew differ for minor legs?] No	0	Skew for Leg 1 (All): 25	Skew for Leg 2 (4ST only): 0	
Number of signalized or uncontrolled approa-	ches with a left-turn lane (0, 1, 2, 3, 4)	0	END DUTCH HER SOND ALTONOMY	0	
Number of signalized or uncontrolled approa-	ches with a right-turn lane (0, 1, 2, 3, 4)	0		0	
Intersection lighting (present/not present)	THE RESERVE OF THE PARTY OF THE	Not Present	THE REST OF THE PERSON NAMED IN COLUMN TWO	Not Present	
Calibration Factor, C		1.00	THE COURT OF THE PARTY SALES AND THE LABOUR AND THE PARTY SALES AN		

	Worksheet 2B - Cra	sh Modification Factors for Rural Two-Land	Two-Way Roadway Intersections	100
(1)	(2)	(3)	(4)	(5)
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
CMF 1	CMF ₂	CMF ₃₄	CMF.	CMF _{COMB}
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1.11	1.00	1,00	1.00	= 1.11

	Worksheet 2C Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)					
Crash Severity Level	N sof 3ST, 4ST or 4SG	Overdispersion	Crash Severity	N spl 337, 437 or 43G by Severity		Calibration Factor, C	Predicted average crash frequency, N					
	14 spr 351, 451 br 45G	Parameter, k	Distribution	tribution Distribution Combined CMFs			predicted inf					
	from Equations 10-8, 10-9, or	from Section	n from Table (2) *(4) from (5) of Workshee		(2) _{TOTAL} (4) from (5) of Worksheet		/E)e/(P)e/(T)					
	10-10	10.6.2	10-5	(F)TOTAL (T)	2B		(5)*(6)*(7)					
Total	0.131	0.54	1.000	0.131	1.11	1.00	0.145					
Fatal and injury (FI)		-	0.415	0.054	1.11	1.00	0.060					
Property Damage Only (PDO)		-	0.585	0.077	1.11	1.00	0.085					

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N produced and (TOTAL) (crashes/year)	Proportion of Collision Type _(Pl)	N produced tel (FI) (crashes/year)	Proportion of Collision Type(1900)	N producted int (PDO) (Crashes/year
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8) _{PDO} from Worksheet 2C
Total	1,000	0.145	1.000	0.060	1,000	0.085
	18	(2)x(3)total		(4)x(5)=	1	(6)x(7)≠00
			SINGLE-V	/EHICLE		,
Collision with animal	0.019	0.003	0.008	0.000	0.026	0.002
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.002	0.022	0.001	0.007	0.001
Ran off road	0.244	0.035	0.240	0,014	0.247	0.021
Other single-vehicle collision	0,016	0.002	0.011	0.001	0.020	0.002
fotal single-vehicle crashes	0.294	0.043	0.283	0.017	0,302	0.026
			MULTIPLE	VERICLE		
Ingle collision	0.237	0.034	0.275	0.017	0.210	0.018
lead-on collision	0.052	0.008	0.081	0.005	0.032	0.003
tear-end collision	0.278	0.040	0.260	0,016	0.292	0.025
ideswipe collision	0.097	0.014	0.051	0,003	0.131	0.011
Other multiple-vehicle collision	0.042	0.006	0.050	0,003	0.033	0.003
Total multiple-vehicle crashes	0,706	0.102	0.717	0.043	0.698	0.059

	Worksheet 2E — Summary Results for Rural Two-Lane Two-Way Road Intersections											
(1)	(2)	(3)										
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)										
	(4) from Worksheet 2C	(8) from Worksheet 2C										
Total	1.000	0.1										
Fatal and Injury (FI)	0,415	0.1										
Property Damage Only (PDO)	0.585	0.1										

	Worksheet 2A General Information	and Input Data for Rural Two	-Lane Two-Way Roadwa	y Intersections		
General	Information			Location Informa	tion	
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-road	DT HMM 08/25/11	Roadway Intersection Jurisdiction Analysis Year			Arroyo Seco Road Clark Road Monterey County 1997	
	ut Data	Base Conditions		- 1	Ite Conditions	-
Intersection type (3ST, 4ST, 4SG)			THE RESIDENCE AND PARTY OF THE	ATTENDED	3ST	575974
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)	W	Contract to division to		1.200	NOTE OF STREET
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)		THE THE WAY THE	to the true to a	83	
Intersection skew angle (degrees) [If 4ST, does	s skew differ for minor legs?] No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only): 0	To the second
Number of signalized or uncontrolled approaches v	vith a left-turn lane (0, 1, 2, 3, 4)	0	The second second second	33 50 30 30	0	
Number of signalized or uncontrolled approaches v	with a right-turn lane (0, 1, 2, 3, 4)	0			0	0.00
Intersection lighting (present/not present)		Not Present	Not Present		Call Control	
Calibration Factor, C		1.00	NAME OF STREET	HE HAZZINE	1.00	

(1) CMF for Intersection Skew Angle CMF ₁ from Equations 10-22 or 10-23	CMF for Left-Turn Lanes CMF ₂ from Table 10-13	(3) CMF for Right-Turn Lanes CMF ₃ from Table 10-14	(4) CMF for Lighting CMF CMF from Equation 10-24	(5) Combined CMF CMF COMB (1)*(2)*(3)*(4)
1.11	1.00	1.00	1.00	1.11

- 41	(3)	Worksheet 2C -	Intersection Cra	shes for Rural Two-Lane To	vo-Way Roadway Inters	ections	
	(2)	(3)	(4)	(5)	1 (6)	(1)	(8)
Crash Severity Level	N sol 3ST, 4ST or 4SG			N spt 3ST, 4ST or 4SG by Severity		Calibration Factor, C	Predicted average crash frequency, N
	4,000,000	Parameter, k	Distribution	Distribution	Combined CMFs		predicted int
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		
	10-10	10.6.2	10-5	(2)TOTAL (4)	2B		(5)*(6)*(7)
Total	0.123	0.54	1.000	0.123	1.11	1.00	0.136
Fatal and Injury (FI)	-	-	0.415	0.051	1,11	1.00	0.057
Property Damage Only (PDO)			0.585	0.072	1.11	1.00	0.080

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(TOTAL)	N promiser in (TOTAL) (crashes/year)	Proportion of Collision Type(ri)	N producted for proj (crashes/year)	Proportion of Collision Type _(Poo)	N producted and (PDO) (Crashes/year)
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)+00 from Worksheet 2C
Total	1.000	0.136	1.000	0.057	1.000	0.080
		(2)x(3)total	4	(4)x(5)rı		(6)x(7)roo
			SINGLE-V	EHICLE		
Collision with animal	0.019	0.003	- 0.008	0.000	0.026	0.002
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.002	0.022	0.001	0.007	0.001
Ran off road	0.244	0.033	0.240	0.014	0.247	0.020
Other single-vehicle collision	0.016	0.002	0.011	0.001	0.020	0.002
Total single-vehicle crashes	0.294	0.040	0.283	0.016	0.302	0.024
			MULTIPLE-	VERICLE		
Angle collision	0.237	0.032	0.275	0.016	0.210	0.017
lead-on collision	0.052	0.007	0.081	0.005	0.032	0.003
tear-end collision	0.278	0,038	0.260	0.015	0.292	0.023
ideswipe collision	0.097	0.013	0.051	0.003	0.131	0.010
Other multiple-vehicle collision	0.042	0.006	0.050	0.003	0.033	0.003
Fotal multiple-vehicle crashes	0.706	0.096	0.717	0.041	0.698	0.056

	Worksheet 2E - Summary Results for Rural Two-Lane T	wo-Way Road Intersections
(1)	(2)	(3)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)
	(4) from Worksheet 2C	(8) from Worksheet 2C
Total	1.000	0.1
Fatal and injury (FI)	0,415	0.1
Property Damage Only (PDO)	0.585	0,1

G	eneral Information		Locat	on Information	
Analyst Agency or Company Date Performed	DT HMM 08/25/11	Roadway Intersection Jurisdiction		Arroyo Seco Road Clark Road Monterey County	
Unsignalized three-leg (stop control on min	r-road appr	Analysis Year		1998	ALC: N
	Input Data	Base Conditions		Site Conditions	
Intersection type (3ST, 4ST, 4SG)	CALLED AND AND AND AND AND AND AND AND AND AN	-		3ST	200
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)	M0000	NONE MILES - VERY	1,900	
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	Military -		83	
Intersection skew angle (degrees) [If 45	T, does skew differ for minor legs?] No	0	Skew for Leg 1 (All):	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled appro	ches with a left-turn tane (0, 1, 2, 3, 4)	0		O	
Number of signalized or uncontrolled appro	iches with a right-turn lane (0, 1, 2, 3, 4)	0	CONC. VENEZA SERVICE DE LA CONTRACTOR DE	0	
Intersection lighting (present/not present)		Not Present	Note that the part of the part	Not Present	
Calibration Factor, C		1.00	Charles and the Park of the Control	1.00	-

		Worksheet 2B Cra	sh Modification Factors for Rural Two-Lane	Two-Way Roadway Intersections	
	(1)	(2)	(3)	(4)	(5)
	CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
	CMF ₁₁	CMF ₂₅	CMF ₃₄	CMF ₄	CMF COMB
	from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
_	" 1.11	1.00	1.00	1.00	1.11

	Worksheet 2C - Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N sof 3ST, 4ST or 4SG	Overdispersion	Crash Severity	N apt 3ST, 4ST or 4SG by Severity	11.5 177 5 1	Calibration Factor, C	Predicted average crash frequency, N
	14 spr 351, 451 01 450	Parameter, k	Distribution	Distribution	Combined CMFs		predicted int
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		(5)*(6)*(7)
	10-10	10.6.2	10-5	(Z/IOTAL (4)	2B		(3) (6) (7)
Total	0.177	0.54	1.000	0.177	1.11	1.00	0.196
Fatal and Injury (FI)	_	-	0.415	0.074	1.11	1.00	0.081
Property Damage Only (PDO)		(4-2)	0.585	0.104	1.11	1.00	0.115

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerrotal	(crashes/year)	Proportion of Collision Typeদে	N produced for [75] (crashes/year)	Proportion of Collision Type(PDO)	N productor and (poor) (crashes/year)
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)900 from Worksheet 2C
l'otal	1.000	0.196	1.000	0.081	1.000	0.115
		(2)X(3)TOTAL		(4)x(5)≈		(6)x(7) _{PDO}
			SINGLE-V	EHICLE		
Collision with animal	0.019	0.004	0.008	0.001	0.026	0.003
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Cottision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	- 0.003	0.022	0,002	0.007	0.001
Ran off road	0.244	0.048	0.240	0.020	0.247	0.028
Other single-vehicle collision	0.016	0.003	0.011	0,001	0.020	0.002
Fotal single-vehicle crashes	0.294	0.058	0.283	0.023	0.302	0.035
			MULTIPLE	VEHICLE		
Angle collision	0.237	0.046	0.275	0.022	0.210	0.024
lead-on collision	0.052	0.010	0.081	0.007	0.032	0.004
lear-end collision	0.278	0.054	0.260	0.021	0.292	0.033
ideswipe collision	0.097	0.019	0.051	0.004	0.131	0.015
Other multiple-vehicle collision	0.042	0.008	0.050	0.004	0.033	0.004
Total multiple-vehicle crashes	0.706	0.138	0.717	0.058	0.698	0.080

	Worksheet 2E Summary Results for Rural Two-Lane T	wo-Way Road Intersections
(1)	(2)	(3)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)
National Control of the Control of t	(4) from Worksheet 2C	(8) from Worksheet 2C
Total	1.000	0.2
Fetal and Injury (FI)	0.415	0.1
Property Damage Only (PDO)	0.585	0.1

Gen	eral Information				L	ocation Informa	tion	
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-r		DT IMM /25/11		Roadway Intersection Jurisdiction Analysis Year		Arroyo Seco Road Clark Road Monterey County 1999		
	Input Data		A 18 . 18	Base Conditions			Site Conditions	
intersection type (3ST, 4ST, 4SG)				-	A CONTRACTOR DE LA CONT		3ST	
AADT _{major} (veh/day)	AADT _{MAX} = 19	,500 (veh/	day)		MANUFACTURE PROPERTY AND ADDRESS OF THE PARTY		1,200	
AADT _{minor} (veh/day)	AADTHAX = 4,	300 (veh/	day)	(a) - (1)	With the last the	Ellion (November	83	
Intersection skew angle (degrees) [If 4ST,	does skew differ for minor legs?	200	No	. 0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled approach	es with a left-turn lane (0, 1, 2, 3	, 4)		0		THE RESERVE OF STREET	0	1000
Number of signalized or uncontrolled approach	es with a right-turn lane (0, 1, 2,	3, 4)		0			0	
ntersection lighting (present/not present)		758,4363,500,702,4		Not Present			Not Present	
Calibration Factor, C				1.00	Provide and the second second	A Charles	1.00	

The P	Worksheet 2B Cra	sh Modification Factors for Rural Two-Land	e Two-Way Roadway Intersections	
(1)	(2)	(3)	(4)	(5)
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
CMF 1	CMF 21	CMF ₃	CMF ₄	CMF COMB
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1.11	1.00	1.00	1.00	1.11

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spt 3ST, 4ST or 4SG			N spt 33T, 4ST or 49G by Severity		Calibration Factor, C	Predicted average crash frequency,
		Parameter, k	Distribution	Distribution	Combined CMFs		predicted int
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		(5)*(m*(T)
	10-10	10.6.2	10-5	(Z)TOTAL (4)	2B		(5)*(6)*(7)
otal	0.123	0.54	1.000	0.123	1.11	1.00	0,136
atal and Injury (FI)			0.415	0.051	1.11	1.00	0.057
roperty Damage Only (PDO)	-	-	0,585	0.072	1.11	1.00	0.080

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N present at (TOTAL) (crashes/year)	Proportion of Collision Type _(Pt)	N produced for (PQ (crashes/year)	Proportion of Collision Type(PDO)	N predicted for (PDO) (CTRShes/year)
	from Table 10-6	(8) rose from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	1.000 0 (6) 0.026 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(8)roo from Worksheet 2C
Total	1.000	0.136	1.000	0.057	1.000	0.080
		(2)x(3)total		(4)x(5)≈	-	(6)x(7) _{PDO}
			SINGLE-V	EHICLE		
collision with animal	0.019	0.003	0.008	0.000	0.026	0.002
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.002	0.022	0.001	0.007	0.001
Ran off road	0.244	0.033	0.240	0.014	0.247	0.020
Other single-vehicle collision	0.016	0.002	0.011	0.001	0.020	0.002
otal single-vehicle crashes	0.294	0.040	0.283	0.016	0.302	0.024
			MULTIPLE-	VEHICLE		
Ingle collision	0.237	0.032	0.275	0.016	0.210	0.017
fead-on collision	0.052	0.007	0.081	0.005	0.032	0.003
lear-end collision	0.278	0.038	0.260	0.015	0.292	0.023
idéswipe collision	0.097	0.013	0,051	0.003	0.131	0.010
Other multiple-vehicle collision	0.042	0.006	0,050	0.003	0.033	0.003
Total multiple-vehicle crashes	0.706	0.096	0.717	0.041	0,698	0.056

Worksheet 2E - Summary Results for Rural Two-Lane Two-Wa	y Road Intersections
(2)	(3)
Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)
(4) from Worksheet 2C	(8) from Worksheet 2C
1.000	0.1
0.415	0.1
0.585	0.1
	(2) Crash Severity Distribution (proportion) (4) from Worksheet 2C 1.000 0.415

an analytic of the state of the

		anomaçon	and Input Data for Rural Two				
	ral information				Location Information		
Analyst Agency or Company Date Performed	DT HMM 08/25/11		Roadway Intersection Jurisdiction		Атоуо Seco Road Clark Road Monterey County		
Jnsignalized three-leg (stop control on minor-road appre Input Data			Analysis Year	2000 Site Conditions			
			Base Conditions				100
Intersection type (3ST, 4ST, 4SG)			_	The state of the s	THE RESIDENCE OF THE PARTY OF T	3ST	100000
AADT _{mejor} (veh/day)	AADT _{MAX} = 19,500	(velv/day)				1,300	24000
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300	(veh/day)	_	When you a new party		83	10000
	oes skew differ for minor legs?]	No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled approache			0		EN SECURIS	0	
Number of signalized or uncontrolled approache	s with a right-turn (ane (0, 1, 2, 3, 4)	1000	0	THE RESIDENCE OF THE RE		0	
Intersection lighting (present/not present)	and profit to the contract of		Not Present			Not Present	
Calibration Factor, C	- Free Street		1.00	The second second second second second	CONTRACTOR AND DOCUMENT	1.00	

CMF for Intersection Skew Angle CMF ₁₁ from Equations 10-22 or 10-23	CMF for Left-Turn Lanes CMF 21 from Table 10-13	(3) CMF for Right-Turn Lanes CMF ₃ from Table 10-14	(4) CMF to Eighting CMF 4 from Equation 10-24	(5) Combined CM CMF COMB (1)*(2)*(3)*(4)
1.11	1.00	1.00	1.00	1.11

Worksheet 2C - Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
Crash Severity Level	N sof 3ST, 4ST or 4SG	Overdispersion		N spt 3ST, 4ST or 4SG by Severity		Calibration Factor, C	Predicted average crash frequency, N			
		Parameter, k	Distribution	Distribution	Combined CMFs		predicted int			
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet					
	10-10	10.6.2	10-5	(Z/TOTAL (4)	2B		(5)*(6)*(7)			
Total	0.131	0.54	1.000	0.131	1.11	1,00	0,145			
Fatal and Injury (FI)	_	-	0.415	0.054	1.11	1.00	0.080			
Property Damage Only (PDO)	-	-	0.585	0.077	1.11	1.00	0.085			

		Worksheet 2D - Crashes b	y Severity Level and Collision	Type for Rural Two-Lane Two-Wa	y Road Intersections	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N proteins for (TOTAL) (crashes/year)	Proportion of Collision Type _(Pi)	N producted for proj (crashes/year)	Proportion of Collision Type(1900)	N predicted for (PDO) (Crashes/year
	from Table 10-6	(8) roral from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8) _{PDO} from Worksheet 2C
Total	1,000	0.145	1.000	0.060	1,000	0.085
		(2)x(3)total		(4)x(5)≈		(6)x(7)≠po
			SINGLE-V	EHICLE		
Collision with animal	0,019	0.003	0.008	0.000	0,026	0.002
Collision with bicycle	0.001	0.000	0.001	0.000	0,001	0.000
Collision with pedestrian	0,001	0.000	0.001	0.000	0,001	0.000
Overturned	0.013	0.002	0.022	0.001	0.007	0.001
Ran off road	0.244	0.035	0.240	0.014	0.247	0.021
Other single-vehicle collision	0.016	0.002	0.011	0.001	0.020	0.002
Total single-vehicle crashes	0.294	0.043	0.283	0.017	0.302	0.026
			MULYIPLE-	VEHICLE		
Angle collision	0.237	0.034	0.275	0,017	0.210	0.018
Head-on collision	0,052	0.008	0.081	0.005	0.032	0.003
Rear-end collision	0.278	0.040	0.260	0.016	0,292	0.025
Sideswipe collision	0.097	0.014	0.051	0.003	0.131	0.011
Other multiple-vehicle collision	0.042	0.006	0.050	0.003	0.033	0.003
Total multiple-vehicle crashes	0.706	0.102	0.717	0.043	0.698	0.059

Total multiple-venicle crasiles 0.706	0.102	0.043 0.698 0.059
		all to all of the most set in
	Worksheet 2E - Summary Results for Rural Two-Lane Tv	wo-Way Road Intersections
(1)	(2)	(3)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)
	(4) from Worksheet 2C	(8) from Worksheet 2C
Total	1.000	0.1
Fatal and Injury (FI)	0.415	0.1
Property Damage Only (PDO)	0.585	0.1

Ger	eral Information	Location Information					
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-	DT HMM 08/25/11	Roadway Intersection Jurisdiction Analysis Year		Arroyo Seco Road Clark Road Montarey County 2001			
The state of the s	Input Data	Base Conditions	Site Conditions				
Intersection type (3ST, 4ST, 4SG)		-	3ST				
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)	M -	Service Control of the Control	1,400			
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	-		83	-		
	does skew differ for minor legs?] No	0	Skew for Leg 1 (All): 25	Skew for Leg 2 (43T only):	0		
Number of signalized or uncontrolled approac	es with a left-turn lane (0, 1, 2, 3, 4)	0	(COLUMN TO BE THE REST OF THE PARTY OF THE P	0			
Number of signalized or uncontrolled approac	es with a right-turn lane (0, 1, 2, 3, 4)	0					
Intersection lighting (present/not present)		Not Present	Not Present				
Calibration Factor, C		1.00	Extended the book of the book				

	Worksheet 2B - Cra	sh Modification Factors for Rural Two-Lar	e Two-Way Roadway Intersections	
(1)	(2)	(3)	(4)	(5)
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
CMF 1	CMF _{2i}	CMF ₃	CMF ₄	CMF COMB
 from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1.11	1.00	1.00	1.00	1.11

	Worksheet 2C Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)				
Crash Severity Level	N sof 3ST, 4ST or 4SG	Overdispersion	Crash Severity	N spi 3ST, 4ST or 49G by Severity		Calibration Factor, C	Predicted average crash frequency. N				
		Parameter, k	Distribution	Distribution	Combined CMFs		predicted int				
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		/E\#/E\#(7)				
	10-10	10.6.2	10-5	(E)IOIAL (4)	28		(5)*(6)*(7)				
Total	0.139	0.54	1.000	0.139	1.11	.1.00	0,154				
Fatal and Injury (FI)	-	_	0.415	0.058	1.11	1.00	0,064				
Property Damage Only (PDO)	-		0,585	0.081	1.11	1,00	0,090				

(4)	1 255			Type for Rural Two-Lane Two-Wa		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of	N predicted int (TOTAL)	Proportion of Collision	N protection (crashes/year)	Proportion of Collision Type(PDD)	N predicted int (PDO) (Crashes/year)
	Collision	(crashes/year)	Type _(Pt)			
	Type(TOTAL)					
	from Table	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)roo from Worksheet 2C
	10-6	20.00	HOIN TUBIC 10-0	(O)A IIOIII VVOIKANIBEL 20	IIOM Table 10-0	(6)PDG ITOTTI VYOTKSHEET 2C
l otal	1,000	0.154	1.000	0.064	1.000	0.090
		(2)x(3)total		(4)x(5)n		(6)x(7) _{PDO}
			SINGLE-V	EHICLE		
Collision with animal	0.019	0.003	0.008	0.001	0.026	0.002
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0.001	0.000	0,001	0.000	0.001	0.000
Overturned	0,013	0.002	0.022	0.001	0.007	0.001
Ran off road	0.244	0.038	0.240	0.015	0.247	0.022
Other single-vehicle collision	0.016	0.002	0,011	0.001	0.020	0.002
otal single-vehicle crashes	0.294	0.045	0.283	0.018	0.302	0.027
			MULTIPLE:	VEHICLE		9.00
Ingle collision	0.237	0.036	0.275	0.018	0.210	0.019
lead-on collision	0,052	0.008	0.081	0.005	0.032	0.003
tear-end collision	0.278	0.043	0.260	0.017	0.292	0.026
ideswipe collision	0,097	0.015	0.051	0.003	0.131	0.012
other multiple-vehicle collision	0.042	0.006	0.050	0.003	0.033	0.003
otal multiple-vehicle crashes	0.706	0.109	0.717	0.046	0.698	0.063

Worksheet 2E - Summary Results for Rural Two-Lane Two-Way Road Intersections									
(1) (2)									
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)							
	(4) from Worksheet 2C	(8) from Worksheet 2C							
Total	1.000	0.2							
Fatal and Injury (FI)	0.415	0.1							
Property Damage Only (PDO)	0,585	0.1							

	eneral information	Location Information				
Analyst Agency or Company Date Performed	DT HMM 08/25/11	HMM Intersection 08/25/11 Jurisdiction		Arroyo Seco Road Clark Road Monterey County		
Unsignalized three-leg (stop control on min		Analysis Year	100000000000000000000000000000000000000	2002	11 7000	
	input Data	Base Conditions	Site Conditions			
Intersection type (3ST, 4ST, 4SG)		_	3ST			
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)	-	Ment Wester burst fix 2 few 201	1,100		
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	-	Market San Control Control	83	1000	
Intersection skew angle (degrees) [If 45		0	Skew for Leg 1 (All): 25	Skew for Leg 2 (4ST only):	0	
Number of signalized or uncontrolled appro	sches with a left-turn lane (0, 1, 2, 3, 4)	0	0			
Number of signalized or uncontrolled appro	sches with a right-turn lane (0, 1, 2, 3, 4)	0	Military and the second			
intersection lighting (present/not present)	and more to the contract of th	Not Present	Not Present			
Calibration Factor, C		1.00	1.00			

	Worksheet 2B - Cra	sh Modification Factors for Rural Two-Lan	Two-Way Roadway Intersections	
(1)	(2)	(3)	(4)	(5)
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
CMF 11	CMF ₂₁	CMF ₃	CMF ₄	CMF COMB
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1.11	1.00	1.00	1,00	1.11

	\	Worksheet 2C -	Intersection Cra	ishes for Rural Two-Lane Tv	vo-Way Roadway Inter	sections	7 1 2 2
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N _{spf} 3ST, 4ST or 4SG from Equations 10-8, 10-9, or	Overdispersion Parameter, k from Section	Crash Severity Distribution from Table	N spf 39T, 4ST or 4SG by Severity Distribution (2)TOTAL * (4)	Combined CMFs from (5) of Worksheet	Calibration Factor, C _I	Predicted average crash frequency, N
10	10-10	10.6.2	10-5	(2)TOTAL (4)	2B		(5)*(6)*(7)
Total	0.115	0.54	1.000	0.115	1.11	1.00	0.127
Fatal and Injury (FI)	-	:-	0.415	0.048	1.11	1.00	0.053
Property Damage Only (PDO)	-	_	0.585	0.067	1.11	1,00	0.074

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(TOTAL)	N produced for (TOTAL) (crashes/year)	Proportion of Collision Type _(Ft)	N produced for (FI) (crashes/year)	Proportion of Collision Type(1900)	N protest int (PDO) (crashes/year)
arr e	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)900 from Worksheet 2C
Total	1,000	0.127	1.000	0,053	1.000	0.074
		(2)x(3)total		(4)x(5)n		(6)x(7)≠00
			SINGLE-V	EHICLE		
Collision with animal	0,019	0.002	0.008	0.000	0.026	0.002
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0,001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.002	0.022	0.001	0.007	0.001
Ran off road	0.244	0.031	0.240	0.013	0.247	0.018
Other single-vehicle collision	0.016	0.002	. 0,011	0.001	0.020	0.001
Total single-vehicle crashes	0.294	0.037	0.283	0.015	0.302	0.022
=			MULTIPLE	VEHICLE		
Angle collision	0.237	0.030	0.275	0.015	0.210	0.016
lead-on collision	0.052	0.007	0.081	0.004	0.032	0.002
Rear-end collision	0.278	0.035	0.260	0.014	0.292	0.022
ideswipe collision	0.097	0.012	0.051	0.003	0.131	0.010
Other multiple-vehicle collision	0.042	0.005	0.050	0.003	0.033	0.002
Total multiple-vehicle crashes	0.706	0.090	0.717	0.038	0,698	0.052

Worksheet 2E — Summary Results for Rural Ywo-Lane Two-Way Road Intersections							
(1)	(2)	(3)					
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)					
	(4) from Worksheet 2C	(8) from Worksheet 2C					
Total	1,000	0.1					
Fatal and Injury (FI)	0.415	0.1					
Property Damage Only (PDO)	0.585	0,1					

	eneral Information	100	The Common description of the second	Location Infor	mation	
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on mink	DT HMM 08/25/11		Roadway Intersection Jurisdiction Analysis Year	Arroyo Seco Road Clark Road Monterey County 2003		
Input Data			Base Conditions		Site Conditions	
Intersection type (3ST, 4ST, 4SG)			-	District the second of the second of the second	3ST	70
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (v	veh/day)	M -	CAST LOCAL DE DAMES DE LA CONTRACTOR DE	1,300	
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 ()	veh/day)	-	CONTRACTOR OF THE PARTY OF THE	83	
	T, does skew differ for minor legs?	No	0	Skew for Leg 1 (All): 25	Skew for Leg 2 (4ST only):	0
Number of signafized or uncontrolled approaches with a left-turn lane (0, 1, 2, 3, 4)			0	AND DESCRIPTION OF THE PARTY OF	0	
Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)			0	0		1000
Intersection lighting (present/not present)			Not Present	Not Present		
Calibration Factor, C.			1.00	BENEVER HER BUILDING TO SERVICE THE	1.00	and the same

CMF for Intersection Skew Angle CMF ₁₁ from Equations 10-22 or 10-23	CMF for Left-Turn Lanes CMF ₂₁ from Table 10-13	(3) CMF for Right-Turn Lanes CMF ₃₁ from Table 10-14	(4) CMF for Lighting CMF from Equation 10-24	(5) Combined CMF CMF COMB (1)*(2)*(3)*(4)
1.11	1,00	1.00	1.00	111

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spi 35T, 45T or 48G	Overdispersion	Crash Severity	N spi 3ST, 4ST or 4SG by Severity	2 12 2	Calibration Factor, C _i	Predicted average crash frequency.
		Parameter, k	Distribution	Distribution	Combined CMFs		predicted int
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		
	10-10	10,6.2	10-5	(Z)TOTAL (4)	2B		(5)*(6)*(7)
otal	0.131	0,54	1.000	0.131	1.11	1.00	0.145
atal and Injury (FI)		-	0.415	0.054	1,11	1.00	0.060
roperty Damage Only (PDO)	-	-	0.585	0.077	1,11	1.00	0,085

(1)	(2)	(3)	(4) I	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N produced and (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N produced and (FI) (crashes/year)	Proportion of Collision Type _(POO)	N protected and (PDD) (CFashes/year
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)eoo from Worksheet 2C
Fotal .	1.000	0.145	1.000	0.060	1,000	0.085
		(2)x(3)rotal		(4)x(5) _{F1}	0.50	(6)x(7)ppo
			SINGLE-V	EHICLE		
offision with animal	0.019	0.003	0.008	0.000	0,026	0.002
Collision with bicycle	0.001	0.000	0.001	0.000	0,001	0.000
Collision with pedestrian	0.001	0.000	0.001	0.000	0,001	0.000
Overturned	0.013	0,002	0.022	0.001	0.007	0.001
Ran off road	0.244	0.035 0.240	0.240	0.240 0.014	0.247	0,021
Other single-vehicle collision	0.016	0.002	0.011	0.001	0.020	0.002
Total single-vehicle crashes	0.294	0,043	0.283	0,017	0.302	0.026
			MULTIPLE-	VEHICLE		
Angle collision	0.237	0.034	0.275	0.017	0.210	0.018
tead-on collision	0.052	0.008	0.081	0.005	0.032	0.003
Rear-end collision	0.278	0.040	0.260	0.016	0.292	0.025
ideswipe collision	0.097	0.014	0.051	0.003	0,131	0.011
Other multiple-vehicle collision	0.042	0.006	0.050	0,003	0.033	0.003
Total multiple-vehicle crashes	0.706	0.102	0.717	0.043	0.698	0.059

Worksheet 2E - Summary Results for Rural Two-Lane Two-Way Road Intersections								
(1)	(2)	(3)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)						
	(4) from Worksheet 2C	(8) from Worksheet 2C						
Total	1.000	0.1						
Fatal and Injury (FI)	0,415	0.1						
Property Damage Only (PDO)	0.585	0.1						

	Information		Location informat	tion	
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-road	DT HMM 08/25/11	Roadway Intersection Jurisdiction Analysis Year		Arroyo Seco Rosd Clark Rosd Monterey County 2004	
	ut Data	Base Conditions	Site Conditions		
ntersection type (3ST, 4ST, 4SG)				3ST	
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)	Mara -	1,800		
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	Pilling -	83		
Intersection skew angle (degrees) [If 4ST, doe	s skew differ for minor legs?] No	Ó	Skew for Leg 1 (All): 25	Skew for Leg 2 (4ST only): 0	
fumber of signalized or uncontrolled approaches	with a left-turn lane (0, 1, 2, 3, 4)	0	ENTEROPERATION AND ADDRESS OF THE PARTY OF T	0	
Number of signalized or uncontrolled approaches	with a right-turn lane (0, 1, 2, 3, 4)	0		0	
ntersection lighting (present/not present)		Not Present		Not Present	
Calibration Factor, C		1.00	1.00		

	*32	- III 83		ANTE O PE O AN					
	Worksheet 28 Crash Modification Factors for Rural Two-Lane Two-Way Roadway Intersections								
(1)	(2)	(3)	(4)	(5)					
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF					
CMF ₁	CMF ₂	CMF ₃	CMF.	CMF COMB					
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)					
1.11	1.00	1.00	1.00	1.11					

-		Norksheet 2C -	Intersection Cra	ishes for Rural Two-Lane Tv	vo-Way Roadway Inters	sections	10
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N sof 35T, 45T or 45G	Overdispersion	Crash Severity	N apt 3ST, 4ST or 4SG by Severity		Calibration Factor, C	Predicted average crash frequency. N
	** 6pt 331, 431 bt 43G	Parameter, k	Distribution	Distribution	Combined CMFs		predicted int
1 50m) A DC	from Equations 10-8, 10-9, or	from Section from Table	e (2) _{TOTAL} * (4)	from (5) of Worksheet			
	10-10	10.6.2 10-5		2B		(5)*(6)*(7)	
Total	0,170	0.54	1.000	0,170	1.11	1.00	0.188
Fatal and Injury (FI)	-		0.415	0.070	1.11	1.00	0.078
Property Damage Only (PDO)		-	0.585	0,099	1.11	1.00	0.110

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(101AL)	N product or (TOTAL) (crashes/year)	Proportion of Collision Typeদেন্	N predicted int gra (crashes/year)	Proportion of Collision Type(1700)	N producted int (PDO) (Crashes/year
	from Table 10-6	(8) rotal from Worksheet 2C	from Table 10-6	(8)m from Worksheet 2C	from Table 10-6	(8)eoo from Worksheet 2C
Total	1.000	0.188	1.000	0,078	1.000	0.110
	93	(2)x(3)total		(4)x(5)n		(6)x(7)ppo
			SINGLE-V	EHICLE		7.05 P
Collision with animal	0,019	0.004	0.008	. 0,001	0.026	0.003
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
ollision with pedestrian	0.001	0.001 0.000 0.001 0.013 0.002 0.022 0.244 0.046 0.240		0.000	0.001	0.000
Pverturned	0,013		0,022	0.002	0.007	0.001
tan off road	0.244			0.240	0,019	0.247
Other single-vehicle collision		0.003	0,011	0.001	0.020	0.002
otal single-vehicle crashes	0.294	0.055	0.283	0.022	0.302	0.033
			MULTIPLE-	VEHICLE		
ungle collision	0.237	0.044	0.275	0.021	0.210	0.023
lead-on collision	0.052	0.010	0.081	0,006	0.032	0.004
lear-end collision	0.278	0.052	0.260	0.020	0.292	0.032
ideswipe collision	0.097	0.018	0.051	0,004	0.131	0.014
Other multiple-vehicle collision	0.042	0.008	0.050	0.004	0.033	0.004
otal multiple-vehicle crashes	0.706	0.132	0,717	0.056	0.698	0.077

Worksheet 2E – Summary Results for Rural Two-Lane Two-Way Road Intersections							
(1)	(2)	(3)					
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)					
	(4) from Worksheet 2C	(8) from Worksheet 2C					
Total	1.000	0.2					
Fatal and Injury (FI)	0.415	0.1					
Property Damage Only (PDO)	0.585	0.1					

General Information					ocation Informa	rtion	
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-roa	DT HMM 08/25/11		Intersection Clark f Jurisdiction Monterey		Arroyo Seco Road Clark Road Monterey County 2005		
Input Data			Base Conditions	1		Site Conditions	
Intersection type (3ST, 4ST, 4SG)		10 TH 10			THE RESIDENCE OF STREET	3ST	735
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (vel	h/day)	M -	1,900			
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (vel	h/day)				83	
Intersection skew angle (degrees) [If 4ST, do	s skew differ for minor legs?)	No	0	Skew for Leg 1 (Alt):	25	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled approaches with a left-turn lane (0, 1, 2, 3, 4)			0	Manda Maria Cara Cara Cara Cara Cara Cara Cara			12
Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)			0				
Intersection lighting (present/not present)			Not Present	Not Present			200
Calibration Factor, C			1.00	Participation of the Control of the			100000

		* 10 10 10 1 au		
11313	Worksheet 2B Cra	sh Modification Factors for Rural Two-Lane	Two-Way Roadway Intersections	25 11 125
(1)	(2)	(3)	(4)	(5)
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
CMF ₁	CMF 21	CMF ₃	CMF ₄	CMF COMB
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1.f1	1.00	1.00	1.00	1,11

	Worksheet 2C - Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
Crash Severity Level	N and SST, 4ST or 4SG			N spl 357, 45T or 45G by Severity		Calibration Factor, C	Predicted average crash frequency, N			
		Parameter, k	Distribution	Distribution	Combined CMFs		predicted int			
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet					
	10-10	10,6.2	10-5	(Z)TOTAL (4)	2B	·	(5)*(6)*(7)			
Total	0.177	0,54	1.000	0,177	1,11	1,00	0,196			
Fatal and Injury (FI)	-	_	0.415	0.074	1.11	1.00	0,081			
Property Damage Only (PDO)	-		0.585	0.104	1,11	1.00	0.115			

/1\	(2)	(3)	(4)	Type for Rural Two-Lane Two-Wa		
Collision Type	Proportion of Collision	N produced bit (TOTAL) (CTBShes/year)	Proportion of Collision Type _(Fi)	(5) N produce in po (crashes/year)	(6) Proportion of Collision Type(1900)	N proteins int (PDD) (Crashes/year)
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)epo from Worksheet 2C
otal	1.000	0.196	1.000	0.081	1,000	0,115
5g		(2)x(3)total		(4)x(5)=		(6)x(7)ppo
·			SINGLE-V	EHICLE	32 8	
Collision with animal	0.019	0.004	0.008	0.001	0.026	0.003
Collision with bicycle	0,001	0.000	0.001	0.000	0,001	0.000
Collision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
Overturned	0,013	0.003	0.022	0.002	0.007	0.001
Ran off road	0.244	0.048	0.240	0.020	0.247	0.028
Other single-vehicle collision	0,016	0.003	0.011	0,001	0.020	0.002
otal single-vehicle crashes	0.294	0.058	0.283	0.023	0,302	0.035
		24	MULTIPLE-	VEHICLE		
Angle collision	0.237	0.046	0.275	0.022	0.210	0.024
lead-on collision	0.052	0.010	0.081	0.007	0.032	0.004
lear-end collision	0.278	0.054	0.260	0.021	0.292	0.033
ideswipe collision	0.097	0.019	0.051	0.004	0,131	0.015
ther multiple-vehicle collision	0.042	0.008	0.050	0,004	0.033	0.004
otal multiple-vehicle crashes	0.706	0.138	0.717	0.058	0.698	0.080

Worksheet 2E - Summary Results for Rural Two-Lane Two-Way Road Intersections								
(1)	(2)	(3)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)						
	(4) from Worksheet 2C	(8) from Worksheet 2C						
Total	1,000	0.2						
Fatal and Injury (FI)	0.415	0.1						
Property Damage Only (PDO)	0.585	0.1						

Gene		Lo	ocation informat	ion	-		
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-ro Unsignalized three-leg (stop control on minor-ro	DT HMM 08/25/11		Roadway Arroyo Seco Road Intersection Clark Road Jurisdiction Montercy County Analysis Year 2006		Clark Road Monterey County		
Input Data			Base Conditions	Site Conditions			-
ntersection type (3ST, 4ST, 4SG)			-	381			(S. 1)
ADT _{mejor} (veh/day)	AADT _{MAX} = 19,500	(veh/day)	-	1,900		S (III)	
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300	(veh/day)				20	
ntersection skew angle (degrees) [If 4ST, d	pes skew differ for minor legs?]	No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0
lumber of signalized or uncontrolled approache			0	RIVER HERSEL BURNER	MANAGES AND ASSESSMENT	0	
Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)			0	The second secon			
Intersection lighting (present/not present)			Not Present	Not Present			1000
Calibration Factor, C			1.00	AND CONTRACTOR OF THE PARTY OF			

				0.000000	
_	1 111	Worksheet 2B Cra	sh Modification Factors for Rural Two-La	ne Two-Way Roadway Intersections	
	(1)	(2)	(3)	(4)	(5)
	CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
	CMF ₁	CMF _{2i}	CMF _{3i}	CMF ₄	CMF COMB
	from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
	1.11	1.00	1.00	1.00	1,11

	Worksheet 2C — Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
Crash Severity Level	N apt 3ST, 4ST or 45G	Overdispersion	Crash Severity	N apt 3ST, 4ST or 4SG by Severity		Calibration Factor, C	Predicted average crash frequency, N			
•	1.00	Parameter, k	Distribution	Distribution	Combined CMFs		predicted int			
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		/E)+/E)+/7)			
	10-10	10.6.2	10-5	(E)TOTAL (4)	28		(5)*(6)*(7)			
Total	0.088	0,54	1.000	0,088	1.11	1.00	0.098			
Fatal and Injury (FI)		_	0.415	0.037	1.11	1.00	0.040			
Property Damage Only (PDO)	-	-	0.585	0.052	1.11	1.00	0.057			

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerrorau	N presented for (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N production (crashes/year)	Proportion of Collision Type(1900)	N produced int (PDO) (Crashes/year)
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)roo from Worksheet 2C
otal	1.000	0.098	1.000	0.040	1,000	0.057
·		(2)x(3)total		(4)x(5)n	N.	(6)x(7) _{P00}
			SINGLE-V	EHICLE		
Collision with animal	0,019	0.002	800.0	0.000	0.026	0.001
ollision with bicycle	0,001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0,001	0.000	0.001	0.000	0.001	0.000
Overturned	0,013	0.001	0.022	0,001	0.007	0.000
lan off road	0.244	0.024	0.240	0.010	0.247	0.014
Other single-vehicle collision	0,016	0.002	0.011	0,000	0.020	0.001
otal single-vehicle crashes	0.294	0.029	0.283	0.011	0.302	0.017
<u> </u>	1990		MULTIPLE-	VEHICLE	2.00	-
ngle collision	0.237	0.023	0.275	0,011	0.210	0.012
lead-on collision	0,052	0.005	0.081	0.003	0.032	0.002
ear-end collision	0.278	0.027	0.260	0.011	0.292	0.017
ideswipe collision	0.097	0.009	0.051	0.002	0.131	0.007
Other multiple-vehicle collision	0.042	0.004	0.050	0.002	0.033	0.002
fotal muttiple-vehicle crashes	0.706	0,069	0.717	0.029	0.698	0.040

	Worksheet 2E - Summary Results for Rural Two-Lane Two-Way Road Intersections							
(1)	(2)	(3)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)						
	(4) from Worksheet 2C	(8) from Worksheet 2C						
Total	1.000	0,1						
Fatal and Injury (FI)	0.415	0.0						
Property Damage Only (PDO)	0,585	0.1						

General Information					Location Informa	ition	9 57 552
Analyst Agency or Company Date Performed	DT HMM 08/25/1		Roadway Arroyo Seco Road Intersection Clark Road Units diction Monterey County				
Unsignalized three-leg (stop control on minor-road appr			Analysis Year			2007	
Input Data			Base Conditions	Site Conditions			
Intersection type (3ST, 4ST, 4SG)				Service of the servic			200
AADT _{major} (veh/day)	AADT _{MAX} = 19,500	(veh/day)	-	1,850			1000
AADT _{minor} (veh/day)	AADT _{MAX} ≈ 4,300	(veh/day)	94		100	20	1000
Intersection skew angle (degrees) [If 4ST, doe	s skew differ for minor legs?	No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled approaches with a left-turn lane (0, 1, 2, 3, 4)			0	The state of the s			1000
Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)			0	O THE RESIDENCE OF THE PARTY OF			-
Intersection lighting (present/not present)			Not Present	Not Present			10124
Calibration Factor, C.			1.00	The second secon			

			in the state of th						
	Worksheet 2B Crash Modification Factors for Rural Two-Lane Two-Way Roadway Intersections								
(1)	(2)	(3)	(4)	(5)					
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF					
CMF 1	CMF _{2i}	CMF _N	CMF ₄	CMF COMB					
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)					
1,11	1.00	1.00	1.00	1.11					

	Worksheet 2C - Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
Crash Severity Level	N spf 39T, 49T or 49G	Overdispersion	Crash Severity	N spf 3ST, 4ST or 4SG by Severity	m11 -	Calibration Factor, C	Predicted average crash frequency, N			
	1 spr 351, 451 or 435	Parameter, k	Distribution	Distribution	Combined CMFs	21 112	predicted int			
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet					
×*	10-10	10,6.2	10-5	(2)TOTAL (4)	28		(5)*(6)*(7)			
Total	0,086	0.54	1,000	0,086	1.11	1,00	0,095			
Fatal and Injury (FI)	_		0,415	0,036	1,11	1,00	0,040			
Property Damage Only (PDO)	_		0,585	0,051	1.11	1,00	0,056			

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N promoter in (TOTAL) (crashes/year)	Proportion of Collision Type _(F)	N president int (FI) (crashes/year)	Proportion of Collision Type(1900)	N produced for (PDG) (CTRShes/year)
2.7110	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)roo from Worksheet 2C
Total	1.000	0.095	1.000	0,040	1.000	0.056
		(2)x(3)total		(4)x(5)m		(6)x(7)ppo
			SINGLE-V	EHICLE		
Collision with animal	0.019	0.002	0.008	0,000	0.026	0.001
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0.001	0.000	0.001	0,000	0.001	0.000
Overturned	0,013	0.001	0.022	0.001	0.007	0.000
Ran off road	0.244	0.023	0.240	0.010	0.247	0.014
Other single-vehicle collision	0.016	0.002	0.011	0,000	0.020	0.001
Total single-vehicle crashes	0.294	0.028	0.283	0,011	0.302	0.017
			MULTIPLE	VEHICLE		
Angle collision	0.237	0.023	0.275	0.011	0.210	0.012
lead-on collision	0.052	0.005	0.081	0,003	0.032	0.002
lear-end collision	0.278	0.027	0.260	0.010	0.292	0.016
ideswipe collision	0.097	0.009	0.051	0.002	0.131	0.007
Other multiple-vehicle collision	0.042	0.004	0.050	0.002	0,033	0.002
Total multiple-vehicle crashes	0.706	0.067	0.717	0.028	0.698	0.039

	Worksheet 2E — Summary Results for Rural Two-Lane Two-Way Road Intersections									
(1)	(2)	(3)								
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)								
	(4) from Worksheet 2C	(8) from Worksheet 2C								
Total	1.000	0.1								
Fatal and Injury (FI)	0,415	0.0								
Property Damage Only (PDO)	0.585	0.1								

	al Information		Location Informati	on	
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-rot	DT HMM 08/25/11 d appre	Roadway Intersection Jurisdiction Analysis Year		Arroyo Seco Road Clark Road Monterey County 2008	
h	put Data	Base Conditions	Si	te Conditions	
ntersection type (3ST, 4ST, 4SG)		-		351	
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)		1,800		
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)			20	
	es skew differ for minor legs?] No	0	Skew for Leg 1 (All): 25	Skew for Leg 2 (4ST only): 0	
lumber of signalized or uncontrolled approache	with a left-turn lane (0, 1, 2, 3, 4)	0.			
Number of signalized or uncontrolled approache	with a right-turn lane (0, 1, 2, 3, 4)	0	Marian Company of the		
ntersection lighting (present/not present)		Not Present		Not Present	
Calibration Factor, C.		1.00	1,00		

			2 137114 1 2	_ 130 * 0 ***
	Worksheet 2B - Cra	sh Modification Factors for Rural Two-Lar	ne Two-Way Roadway Intersections	
(1)	(2)	(3)	(4)	(5)
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
CMF ₁	CMF ₂	CMF _{3i}	CMF 4	CMF COMB
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1,11	1.00	1.00	1.00	1.11

Worksheet 2C – Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Crash Severity Level	N spf 33T, 45T or 49G	Overdispension	Crash Severity	N spt 3ST, 4ST or 4SG by Severity		Calibration Factor, C _i	Predicted average crash frequency, N		
	** spi 331, 451 til 433	Parameter, k	Distribution	Distribution	Combined CMFs		predicted int		
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		(E)*(E)*(Z)		
	10-10	10.6.2	10-5	(E)IOIAL (T)	28		(5)*(6)*(7)		
Total	0,085	0.54	1.000	0,085	1,11	1.00	0.093		
Fatal and Injury (FI)	_	-	0.415	0.035	1.11	1.00	0.039		
Property Damage Only (PDO)			0.585	0.049	1.11	1.00	0.055		

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(101AL)	N produced lot (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N produced in (Fig (crashes/year)	Proportion of Collision Type(P00)	N produced for (PDO) (Crashes/year)
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)Poo from Worksheet 2C
Total	1.000	0.093	1.000	0,039	1.000	0.055
		(2)x(3)total		(4)x(5)n		(6)x(7)≠00
			SINGLE-V	EHICLE		
Collision with animal	0.019	0.002	0.008	0.000	0.026	0.001
Collision with bicycle	0,001	0.000	0.001	0.000	0.001	0,000
Collision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.001	0.022	0,001	0.007	0,000
Ran off road	0.244	0.023	0.240	0.009	0.247	0,013
Other single-vehicle collision	0.016	0.001	0.011	0,000	0.020	0,001
Fotal single-vehicle crashes	0,294	0.027	0.283	0,011	0.302	0.017
	14		MULTIPLE-	VEHICLE		
ingle collision	0.237	0.022	0.275	0.011	0.210	0.011
lead-on collision	0.052	0.005	0.081	0.003	0.032	0.002
ear-end collision	0.278	0.026	0.260	0.010	0.292	0.016
ideswipe collision	0.097	0.009	0.051	0.002	0.131	0.007
Other multiple-vehicle collision	0.042	0.004	0.050	0.002	0.033	0.002
otal multiple-vehicle crashes	0.708	0.066	0.717	0.028	0.698	0.038

Worksheet 2E — Summary Results for Rural Two-Lane Two-Way Road Intersections								
(1)	(2)	(3)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)						
	(4) from Worksheet 2C	(8) from Worksheet 2C						
Total	1,000	0.1						
Fatal and Injury (FI)	0.415	0.0						
Property Damage Only (PDO)	0.585	0.1						

	eral Information			Lo	cation Informat	tion		
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on minor-	DT HMM 08/25/11		Roadway Intersection Jurisdiction Analysis Year		Arroyo Seco Road Clark Road Monterey County 2009			
	Base Conditions	Site Conditions						
Input Data Intersection type (3ST, 4ST, 4SG)				NAME OF THE PARTY			-	
AADT _{major} (veh/day)	AADT _{MAX} = 19,500	(veh/day)	-	1,500				
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300	(veh/day)	_	Name and Parket of the Parket		20		
intersection skew angle (degrees) [If 4ST,	does skew differ for minor legs?	No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0	
Number of signalized or uncontrolled approach	es with a left-turn jane (0, 1, 2, 3, 4)		- 0	Control of the Contro				
Number of signalized or uncontrolled approaches with a right-turn lane (0, 1, 2, 3, 4)			. 0	0 0000000000000000000000000000000000000				
ntersection lighting (present/not present)	A STATE OF THE STA		Not Present	Not Present			9	
Calibration Factor, C			1.00	Bullion Control of the Control		1.00		

(1)	(2)	(3)	(4)	(5)
CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMI
CMF 1	CMF 2i	CMF _N	CMF ₄	CMF COMB
from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
1.11	1,00	1,00	1.00	1.11

Worksheet 2C - Intersection Crashes for Rural Two-Lane Two-Way Roadway Intersections										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
Crash Severity Level	N spf 387, 487 or 48G	Overdispersion	Crash Severity	N spi 3ST, 4ST or 4SG by Severity		Calibration Factor, C	Predicted average crash frequency, N			
		Parameter, k	Distribution	Distribution	Combined CMFs		predicted int			
	from Equations 10-8, 10-9, or	from Section	from Table	(7) *(4)	from (5) of Worksheet					
	10-10	10.6.2	10-5	(2) _{TOTAL} * (4)	2B		(5)*(6)*(7)			
Total	0,073	0,54	1.000	0.073	1.11	1.00	0.081			
Fatal and injury (FI)	_	_	0.415	0.030	1.11	1.00	0.034			
Property Damage Only (PDO)	-		0.585	0.043	1.11	1.00	0.047			

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(TOTAL)	N proteind for (TOTAL) (crashes/year)	Proportion of Collision Typers	N produce in (Fi) (crashes/year)	Proportion of Collision Type(1700)	N produced for (POO) (crashes/year
100	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)roo from Worksheet 2C
otal	1,000	0.081	1.000	0.034	1.000	0.047
		(2)x(3)total	200,000 91	(4)x(5)⊭	21	(6)x(7)ppo
			SINGLE-V	EHICLE		
Collision with animal	0,019	0.002	800.0	0.000	0.026	0.001
ollision with bicycle	0.001	0.000	0,001	0.000	0.001	0.000
ollision with pedestrian	0.001	0.000	0,001	0.000	0.001	0,000
enturned	0,013	0.001	0.022	0.001	0.007	0.000
lan off road	0.244	0.020	0.240	0.008	0.247	0.012
Other single-vehicle collision	0.016	0.001	0.011	0.000	0.020	0.001
otal single-vehicle crashes	0.294	0.024	0.283	0,010	0.302	0.014
			MULTIPLE-	VEHICLE		
ngle collision	0.237	0.019	0.275	0.009	0.210	0.010
lead-on collision	0.052	0.004	0.081	0.003	0.032	0,002
tear-end collision	0.278	0.022	0.260	0.009	0.292	0.014
ideswipe collision	0,097	0.008	0.051	0.002	0.131	0.006
ther multiple-vehicle collision	0,042	0.003	0,050	0.002	0.033	0.002
otal multiple-vehicle crashes	0.706	0.057	0.717	0.024	0.698	0.033

	Worksheet 2E - Summary Results for Rural Two-Lane Tw	p-Way Road Intersections
(1)	(2)	(3)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)
	(4) from Worksheet 2C	(8) from Worksheet 2C
Total	1.000	0,1
Fatal and Injury (FI)	0.415	0.0
Property Damage Only (PDO)	0,585	0.0

	2.319		15 15			11.53
	Worksheet 2A General Information	and Input Data for Rural Two	o-Lane Two-Way Roadwa	y intersections		
Gene	ral Information		F WING BUILDING TO	Location Informa	tion	
Analyst	DT	Roadway		SENTENCE DE L'AMBRE	Arroyo Seco Road	
Agency or Company	HMM	Intersection			Clark Road	
Date Performed	08/25/11	Jurisdiction			Monterey County	
Unsignalized three-leg (stop control on minor-ro	ad appre	Analysis Year	2010			
	nput Data	Base Conditions	Site Conditions			
Intersection type (3ST, 4ST, 4SG)		_	THE RESIDENCE OF THE PARTY OF T			DEPOSITOR NAMED IN
AADT _{mejor} (veh/day)	AADT _{MAX} = 19,500 (veh/day)				1,500	
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	M	in mantena victo	August 1	20	
Intersection skew angle (degrees) [If 4ST, d	pes skew differ for minor legs? No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0
Number of signalized or uncontrolled approache		0		NAME OF TAXABLE	O postale de la companya del companya del companya de la companya	W. O.
Number of signalized or uncontrolled approache	s with a right-turn lane (0, 1, 2, 3, 4)	0	0			
Intersection lighting (present/not present)		Not Present	MANAGEMENT		Not Present	
Calibration Factor, C.	1.00	Not Present			-	

(1) CMF for Intersection Skew Angle CMF ₁₁ from Equations 10-22 or 10-23	CMF for Left-Turn Lanes CMF 2 from Table 10-13	(3) CMF for Right-Turn Lanes CMF ₃₄ from Table 10-14	(4) CMF for Lighting CMF ₄₁ from Equation 10-24	(5) Combined CMF CMF COMB (1)*(2)*(3)*(4)	
1.11	1.00	1.00	1.00	1.11	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf 3ST, 4ST or 4SG	Overdispersion Parameter, k	Crash Severity Distribution	N spt 3ST, 4ST or 4SG by Severity Distribution	Combined CMFs	Calibration Factor, C	Predicted average crash frequency,
4	from Equations 10-8, 10-9, or 10-10	from Section 10.6.2	from Table 10-5	(2) _{TOTAL} * (4)	from (5) of Worksheet 2B		(5)*(6)*(7)
otal	0.073	0.54	1.000	0,073	1.11	1.00	0.081
atal and injury (FI)		-	0.415	0,030	1.11	1.00	0.034
Property Damage Only (PDO)			0.585	0,043	1.11	1.00	0.047

(1)	(2)	(3)	[(5)	(6)	(7)
Collision Type	Proportion of Collision Type(101AL)	N predictor (Crashes/year)	Proportion of Collision Type _(Pi)	N predicted for [70] (crashes/year)	Proportion of Collision Type(100)	N produced and (PDD) (Crashes/year)
31 Pr 4 H	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)+00 from Worksheet 2C
Total	1.000	0.081	1.000	0.034	1.000	0.047
		(2)x(3)total		(4)x(5) _{P1}		(6)x(7) _{PDO}
			SINGLE-V	EHICLE -		
Collision with animal	0.019	0.002	0.008	0.000	0.026	0.001
offision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0.001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.001	0.022	0.001	0.007	0.000
Ran off road	0.244	0.020	0.240	0.008	0.247	0.012
Other single-vehicle collision	0.016	0.001	0.011	0.000	0.020	0.001
otal single-vehicle crashes	0.294	0.024	0.283	0.010	0.302	0.014
			MULTIPLE-	VEHICLE		
Angle collision	0.237	0.019	0.275	0.009	0.210	0.010
lead-on collision	0.052	0.004	0.081	0.003	0.032	0.002
tear-end collision	0.278	0.022	0.260	0.009	0.292	0.014
ideswipe collision	0.097	0.008	0.051	0.002	0,131	0.006
Other multiple-vehicle collision	0.042	0.003	0.050	0.002	0.033	0.002
l'otal multiple-vehicle crashes	0,706	0.057	0.717	0.024	0.698	0.033

Total mutuple-venuc	se crasnes 0,70	760.0	0.717		0.024	0,698	0,033	
	- 11 P - 1			1401 2.7			14 14 5 15 0	
11	- 12	We	orksheet 2E – Summary Resul	ts for Rural Two-Li	ine Two-Way Road Intersection	ens .		
84	(1)		(2)			(3)		
	Crash severity level		Crash Severity Distributi (4) from Workshe	on (proportion)	Pi	redicted average crash frequen	cy (crashes / year)	
Total			(4) from vvorksne 1.000	et 2C		(8) from Worksheet 0,1	20	
Fatal and injury (FI)			0,415	16		0.0		
Fatal and injury (FI Property Damage	Only (PDO)		0.585			0.0		

	Worksheet 2A — General Information	and Input Data for Rural Two	o-Lane Two-Way Roadway Intersections		
	eneral information		Location Information		
Analyst Agency or Company Date Performed Lineary Linea	DT HMM 08/25/11 Froad appre Base Period Accident Prediction	Roadway Intersection Jurisdiction Analysis Year	Arroyo Sec Road Clark Road Monterey County		
The state of the s	Input Data	Base Conditions	Site Conditions		
ersection type (3ST, 4ST, 4SG)		-	CONTRACTOR AND ADDRESS OF THE STATE OF THE S		
AADT _{major} (veh/day)	AADT _{MAX} = 19,500 (veh/day)		1,398		
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300 (veh/day)	-	87		
Intersection skew angle (degrees) [If 4S]	, does skew differ for minor legs?] No	0	Skew for Leg 1 (All): 25 Skew for Leg 2 (4ST only):		
Number of signalized or uncontrolled approa	ches with a left-turn lane (0, 1, 2, 3, 4)	0	The state of the s		
Number of signalized or uncontrolled approa	ches with a right-turn lane (0, 1, 2, 3, 4)	0			
Intersection lighting (present/not present)		Not Present	Not Present		
Calibration Factor, C		1.00	THE RESIDENCE THE RESIDENCE OF THE PARTY OF		

				171 196 196	
_	6 1800	Worksheet 2B - Cra	sh Modification Factors for Rural Two-Land	e Two-Way Roadway Intersections	
	(1)	(2)	(3)	(4)	(5)
	CMF for Intersection Skew Angle	CMF for Left-Turn Lanes	CMF for Right-Turn Lanes	CMF for Lighting	Combined CMF
	CMF _{1i}	CMF ₂	CMF ₃₄	CMF ₄	CMF _{COMB}
	from Equations 10-22 or 10-23	from Table 10-13	from Table 10-14	from Equation 10-24	(1)*(2)*(3)*(4)
	1.11	1,00	1.00	1.00	1.11

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spt 35T, 45T or 45G	Overdispersion Parameter, k	Crash Severity Distribution	N spt 3ST, 4ST or 4SG by Severity Distribution	Combined CMFs	Calibration Factor, C	Predicted average crash frequency,
" K III 6 03	from Equations 10-8, 10-9, or 10-10	from Section 10.6.2	from Table 10-5	(2) _{TOTAL} * (4)	from (5) of Worksheet 2B		(5)*(6)*(7)
otal	0,125	0.54	1.000	0,125	1.11	1.00	0,138
atal and injury (FI)	-	_	0.415	0,052	1.11	1.00	0.057
Property Damage Only (PDO)	_	-	0.585	0,073	1.11	1.00	0.081

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(TOTAL)	N production (TOTAL) (crashes/year)	Proportion of Collision Type _(FI)	N predicted for [FQ (crashes/year)	Proportion of Collision Type(1900)	N predicted int (PDO) (crashes/year
	from Table 10-6	(8) TOTAL from Worksheet 2C	from Table 10-6	(8)m from Worksheet 2C	from Table 10-6	(8) _{PDO} from Worksheet 2C
Total	1,000	0.138	1.000	0.057	1.000	0.081
	¥8	(2)x(3)total		(4)x(5) _{FI}		(6)x(7) _{PDO}
			SINGLE-V	EHICLE		
ollision with animal	0.019	0.003	0.008	0.000	0,026	0,002
ollision with bicycle	0,001	0.000	0.001	0.000	0.001	0,000
olision with pedestrian	0,001	0.000	0.001	0.000	0.001	0.000
Pverturned	0.013	0.002	0.022	0.001	0.007	0,001
tan off road	0.244	0.034	0.240	0.014	0.247	0,020
Other single-vehicle collision	0.016	0.002	0.011	0.001	0.020	0,002
otal single-vehicle crashes	0.294	0.041	0.283	0.016	0.302	0.024
			MULTIPLE-	VERICLE		
ngle collision	0.237	0.033	0.275	0.016	0.210	0,017
lead-on collision	0,052	0.007	0.081	0.005	0,032	0.003
tear-end collision	0,278	0.038	0.260	0.015	0,292	0.024
Ideswipe collision	0.097	0.013	0.051	0.003	0.131	0.011
ther multiple-vehicle collision	0.042	0.006	0.050	0.003	0.033	0.003
otal multiple-vehicle crashes	0.706	0.098	0.717	0.041	0.698	0.056

Worksheet 2E - Summary Results for Rural Two-Lane Two-Way Road Intersections					
(1)	(2)	(3)			
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)			
	(4) from Worksheet 2C	(8) from Worksheet 2C			
Total	1.000	0.1			
Fatal and Injury (FI)	0.415	0.1			
Property Damage Only (PDO)	0.585	0.1			

	neral Information		Location Information					
Analyst Agency or Company Date Performed Unsignalized three-leg (stop control on mino:	DT HMM 08/25/11 road appn Project Buildout Predicted Acc	dents	Roadway . Intersection Jurisdiction Analysis Year		Arroyo Seco Road Clark Road Monterey County			
Input Data			Base Conditions	Site Conditions				
tersection type (3ST, 4ST, 4SG)		-	5 14 6 74 m A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 02 S 02 F 1	3ST	10000		
AADT _{major} (veh/day)	AADT _{MAX} = 19,500	(velv/day)		1,829		Part of		
AADT _{minor} (veh/day)	AADT _{MAX} = 4,300	(veh/day)	-		THE REAL PROPERTY.	258	1511	
Intersection skew angle (degrees) [If 4S]	does skew differ for minor legs?]	No	0	Skew for Leg 1 (All):	25	Skew for Leg 2 (4ST only):	0	
Number of signalized or uncontrolled approa	thes with a left-turn lane (0, 1, 2, 3, 4)		0					
Number of signalized or uncontrolled approa	thes with a right-turn lane (0, 1, 2, 3, 4)		0	EN THE PROPERTY OF THE PARTY OF		0	100	
Intersection lighting (present/not present)			Not Present			Not Present		
Calibration Factor, C.			1.00	CONTRACTOR OF STREET	A Children Service	1.00	TO SHARE	

	Worksheet 2B Crash	Modification Factors for Rural Two-Lane Two	-Way Roadway Intersections	
(1) CMF for Intersection Skew Angle CMF 1 from Equations 10-22 or 10-23	(2) CMF for Left-Turn Lanes CMF _{2i} from Table 10-13	(3) CMF for Right-Turn Lanes CMF 3 from Table 10-14	(4) CMF for Lighting CMF ₄ from Equation 10-24	(5) Combined CMF CMF _{COMB} (1)*(2)*(3)*(4)
1.11	1.00	1.00	1.00	1.11

		Worksheet 2C -	Intersection Cra	shes for Rural Two-Lane To	wo-Way Roadway Inter	sections	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf 3ST, 4ST or 4SG			N spf 3ST, 4ST or 4SG by Severity	- 91 0 1 71	Calibration Factor, C	Predicted average crash frequency, N
	4.00, 40, 0, 40	Parameter, k	Distribution	Distribution	Combined CMFs		predicted int
	from Equations 10-8, 10-9, or	from Section	from Table	(2) _{TOTAL} * (4)	from (5) of Worksheet		
- Carl	10-10	10.6.2	10-5	(2)TOTAL (4)	2B	75 5 8	(5)*(6)*(7)
Total	0,300	0.54	1.000	0,300	1.11 -	1.00	0.331
Fatal and Injury (FI)	-		0.415	0.124	1.11	1.00	0.137
Property Damage Only (PDO)	- 1		0.585	0,175	1.11	1,00	0,194

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(TOTAL)	N produced for (TOTAL) (crashes/year)	Proportion of Collision Type _(F)	N produces for (Fig (Crashes/year)	Proportion of Collision Type(PDO)	N produced for (PCO) (Crashes/year)
M 12 /2	from Table 10-6	(8)TOTAL from Worksheet 2C	from Table 10-6	(8)n from Worksheet 2C	from Table 10-6	(8)roo from Worksheet 2C
Total	1.000	0.331	1.000	0,137	1,000	0.194
		(2)x(3)total		(4)x(5)n		(6)x(7)ppo
			SINGLE-V	EHICLE		
Collision with animal	0.019	0.006	0.008	0.001	0.026	0.005
Collision with bicycle	0.001	0.000	0.001	0.000	0.001	0.000
Collision with pedestrian	0,001	0.000	0.001	0.000	0.001	0.000
Overturned	0.013	0.004	0.022	0.003	0.007	0.001
Ran off road	0.244	0.081	0.240	0.033	0.247	0.048
Other single-vehicle collision	0.016	0.005	0.011	0.002	0,020	0.004
otal single-vehicle crashes	0.294	0.097	0,283	0.039	0,302	0.059
			MULTIPLE	VEHICLE		
ungle collision	0.237	0.079	0.275	0.038	0.210	0.041
lead-on collision	0.052	0.017	0.081	0.011	0.032	0.006
ear-end collision	0.278	0.092	0.260	0.036	0.292	0.057
ideswipe collision	0,097	0.032	0.051	0.007	0.131	0.025
Other multiple-vehicle collision	0.042	0.014	0.050	0.007	0.033	0,006
Total multiple-vehicle crashes	0.706	0.234	0,717	0.099	0.698	0.135

	Worksheet 2E - Summary Results for Rural Two-Lane Two-Wa	ay Road Intersections
(1)	(2)	(3)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes / year)
	(4) from Worksheet 2C	(8) from Worksheet 2C
Total	1,000	0,3
Fatal and Injury (FI)	0,415	0.1
Property Damage Only (PDO)	0.585	0.2

ATTACHMENT C PREDICTED AVERAGE CRASH FREQUENCY CALCULATION WORKSHEETS

Paraiso Springs Road Segment A

Paraiso Springs Road - Segment A 1991-2005

	eneral information		and the second second second	Lo	cation Informati	on	0.00	
Analyst Agency or Company	Hatch	DT Mott MacDonald	Roadway Roadway Section		Р	araiso Springs Rd -A Segment A		
Date Performed	0.000.000.000.000	07/29/11	Jurisdiction	Monterey County, CA				
Analysis Condition	1991-2005		Analysis Year	1991				
Secret State of the State of th	Input Data		Base Conditions		Site (Conditions		7
Length of segment, L (mi)				Service District		0.131		
AADT (veh/day)	AADT _{MX} =	17,800 (veh/day)	W - 12 12 - 12 - 12			463	Acres 6	AADT OK
Lane width (ft)			12		The second second	10.5		
Shoulder width (ft)			6	Right Shid:	2	Left Shid:	2	111111
Shoulder type			Paved	Right Shid:	Gravel	Left Shid:	Gravel	
Length of horizontal curve (mi)			0	ARREST DE L'ARREST	The second second	0.11		13
Radius of curvature (ft)			0	Bully Strategy	THE PERSON NAMED IN	450	and the latest	Radius Value Ol
Spiral transition curve (present/not pre-	ent)		Not Present	Carlo Carlo	No	t Present	TOTAL	
Superelevation variance (ft/ft)			< 0.01		one file	0		
Grade (%)	5 1 1 1		0			0	Moony	
Driveway density (driveways/mile)			5	A THE RESERVE OF THE		5		
Centerline rumble strips (present/not p	resent)		Not Present		No	t Present		
Passing lanes [present (1 lane) /preser	t (2 lane) / not present)]		Not Present		No	Present		100
Two-way left-turn lane (present/not pre	sent)	and the second second	Not Present		No	t Present		
Roadside hazard rating (1-7 scale)			3			2		
Segment lighting (present/not present)			Not Present	A STATE OF THE	No	Present		
Auto speed enforcement (present/not p	oresent)		Not Present		No	t Present		714
Calibration Factor, Cr			1	SAVEYS OF SERVICE		1.00		

11111111111		Work	sheet 1B Cras	h Modificatio	n Factors for F	tural Two-L	ane Two-	Nay Roadwa	y Segments			
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation 10-11	from Equation 10 12	from Equation 10-13	from Equations 10-14, 10-15, or 10-16	from Table 10-11	from Equation 10-17	from Section 10.7.1	from Section 10,7,1	from Equation 10- 18 & 10-19		from Equation 10-21	from Section	
1.01	1.05	2.05	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	2.038

	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments	TT 21 S	161 18
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	ity Level N spf rs Overdispersion Par		Crash Severity Distribution			Calibration Factor, Cr	Predicted average crash frequency, N
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.016	1.80	1,000	0.016	2.04	1.00	0.033
Fatal and Injury (FI)	-	-	0,321	0,005	2.04	1,00	0.011
Property Damage Only (PDO)	1 - 1	-	0,679	0.011	2.04	1.00	0.022

(1)	(2)	(3)	(4)	(5)	(8)	(7)
Collision Type	Proportion of Collision Typerroral	N produced is (TOTAL) (crashes/year)	Proportion of Collision Typers	N produted is (Fi) (crashes/year)	Proportion of Collision Type _(PDO)	N predicted in [F00] (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)= from Worksheet 1C	from Table 19-4	(8) _{PDO} from Worksheet 1C
Total	1.000	0.033	1.000	0.011	1.000	0.022
		(2)x(3)TOTAL	41 T 41 T 41	(4)x(5)n		(6)x(7)PDO
			SINGLE-VEHICLE			
Collision with animal	0.121	0.004	0.038	0.000	0.184	0,004
ollision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
verturned	0.025	0.001	0.037	0.000	0.015	0.000
lan off road	0.521	0.017	0.545	0.006	0.505	0.011
Other single-vehicle collision	0.021	0.001	0.007	0,000	0.029	0.001
otal single-vehicle crashes	0.693	0.023	0,638	0.007	0.735	0.016
			MULTIPLE-VEHICLE	100001		
ngle collision	0.085	0.003	0.100	0.001	0.072	0.002
lead-on collision	0.016	0.001	0.034	0.000	0.003	0.000
ear-end collision	0.142	0.005	0.164	0.002	0.122	0.003
ideswipe collision	0.037	0,001	0.038	0.000	0.038	0.001
other multiple-vehicle collision	0.027	0.001	0.028	0.000	0.030	0.001
otal multiple-vehicle crashes	0.307	0.010	0.382	0.004	0.265	0.008

100000000000000000000000000000000000000	Worksheet 1E - Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments		
(1)	(2)	(3)	(4)	(5)	
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)	
	(4) from Worksheet 1C	(8) from Worksheet 1C	1 1	(3)/(4)	
Total	1,000	. 0.0	0.131	0.3	
Fatal and injury (FI)	0.321	0.0	0.131	0.1	
Property Damage Only (PDO)	0.679	0,0	0.131	0.2	

Paraiso Springs Road - Segment A 2006-2010

G	eneral Information	The second second	Lo	cation information									
Analyst Agency or Company Date Performed	DT Hatch Mott MacDonald 07/29/11	Roadway Roadway Section Jurisdiction			aiso Springs Rd -A Segment A nterey County, CA								
Analysis Condition	2006-2010	Analysis Year 2008		2006									
	Input Data	Base Conditions	1	Site Co	nditions	2							
Length of segment, L (mi)			0.131			SERIES							
AADT (veh/day)	AADT _{MAX} = 17,800 (vsh/day)	_		A STATE OF THE PARTY OF THE PAR	50	AADT OK							
Lane width (ft)		12			0.5								
Shoulder width (ft)	0.01.00	6	Right Shid:	2	Left Shid 2								
Shoulder type		Paved	Right Shid:	Gravel	Left Shid: Grav	el d							
Length of horizontal curve (mi)	O DE LE CARRELLE DE CARRELLE D	0	0,11										
Radius of curvature (ft)		0	HE PANCIONS		50	Radius Value Ol							
Spiral transition curve (present/not pres	ent)	Not Present		Not F	resent	To be a second							
Superelevation variance (ft/ft)		< 0.01	SHEW TO SHE		0								
Grade (%)		0	REPAIR OF THE REPAIR			ATT.							
Driveway density (driveways/mile)		5			0	ability and a second							
Centerline rumble strips (present/not present/not pres			Not Present										
Passing lanes [present (1 lane) /presen		Not Present	Not Present						Not Present		Not Present		
Two-way left-turn lane (present/not pre	sent)	Not Present		Not F	resent								
Roadside hazard rating (1-7 scale)		3			2								
Segment lighting (present/not present)		Not Present	Service Control		resent								
Auto speed enforcement (present/not p	resent)	Not Present	State Section 1		resent								
Calibration Factor, Cr		1 1	Section 1997		00	200							

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting		Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF Br	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation 10-11	from Equation 10- 12	from Equation 10-13	from Equations 10-14, 10-15, or 10-18	from Table 10-11	from Equation 10-17	from Section 10.7.1	from Section 10.7.1	from Equation 10- 18 & 10-19		from Equation 10-21		(1)x(2)x . x(11)x(12
1.01	1.05	2,05	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	2.019

4	Works	heet 1C – Roadway Segmen	t Crashes for Rural Two-	Lane Two-Way Roadwa	ay Segments		N 55 15
— (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency, N
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.005	1.80	1.000	0.005	2.02	1.00	0.011
Fatal and Injury (FI)		_	0.321	0.002	2.02	1.00	0.003
Property Damage Only (PDO)	-	_	0.679	0.004	2.02	1.00	0.007

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N produted is (TOTAL) (crashes/year)	Proportion of Collision Type _(Pi)	N predicted rs (Pi) (crashes/year)	Proportion of Collision Type _(POO)	N predicted in (PDO) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8) _{PDO} from Worksheet 1C
Total	1.000	0.011	1.000	0.003	1,000	0.007
		(2)x(3)total		(4)x(5)a		(8)x(7)poo
110 (2)	100		SINGLE-VEHICLE			
Collision with animal	0.121	0.001	0.038	0.000	0.184	0.001
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0,003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.000	0.037	0.000	0.015	0.000
Ran off road	0.521	0.006	0.545	0.002	0.505	0.004
other single-vehicle collision	0.021	0.000	0.007	0.000	0.029	0.000
otal single-vehicle crashes	0.693	0.007	0.638	0.002	0.735	0.005
			MULTIPLE-VEHICLE	1) 015500	mi 281	111
ungle collision	0.085	0.001	0.100	0,000	0.072	0.001
lead-on collision	0.016	0.000	0.034	0.000	0.003	0.000
ear-end collision	0.142	0.002	0.164	0.001	0.122	0.001
ideswipe collision	0,037	0.000	0.038	0.000	0.038	0.000
Other multiple-vehicle collision	0.027	0.000	0.028	0.000	0.030	0.000
otal multiple-vehicle crashes	0.307	0.003	0.362	0.001	0.285	0.002

Worksheet 1E Summary Results for Rural Two-Lane Two-Way Roadway Segments										
(1)	(2)	(3)	(4)	(5)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)						
	(4) from Worksheet 1C	(8) from Worksheet 1C	1 1	(3)/(4)						
Total	1,000	0,0	0.131	0.1						
Fatal and Injury (FI)	0.321	0.0	0.131	0.0						
Property Damage Only (PDO)	0.679	0,0	0.131	0.1						

Paraiso Springs Road - Segment A Phase 4 - Buildout

	General Information		Section Control of the	Lo	cation infor	mation	100 - 100 - 100 - 100		N
Analyst Agency or Company Date Performed	DT Hatch Mott MacDor 07/29/11	nald	Roadway Paraiso Springe Rd -A Roadway Section Segment A Jurisdiction Monterey County, CA			10.00			
Analysis Condition	Phase 4 - Buildout	1000	Analysis Year						
Paratra Grander	Input Data		Base Conditions Site Conditions			_			
Length of segment, L (mi)	and the second s					0,131	April and the last	M. Thirteen	1
AADT (veh/day)	AADT _{MAX} = 17,800	(veh/day)	3		The same of the sa	482	The Manual Control		AADT OK
Lane width (ft)			12	Course way	All Control of	10.5	CONTRACTOR OF THE PARTY OF THE		
Shoulder width (ft)			8	Right Shid:	2		Left Shid:	2	1
Shoulder type			Paved					Gravel	
Length of horizontal curve (ml)			0	COUNTY TO SERVICE	The same	0.11	White the last		
Radius of curvature (ft)			0	DOMESTICAL STREET	01 001/10/20	450			Radius Value C
Spiral transition curve (present/not pr	esent)		Not Present	1-700		Not Present			
Superelevation variance (ft/ft)			< 0.01	E MAN SO	William I	0		111/23	
Grade (%)	- 111		0		Internation.	0			
Driveway density (driveways/mile)			5		West of the same	0			
Centerline rumble strips (present/not			Not Present			Not Present			
Passing lanes [present (1 lane) /pres		1 1 1 1 1 1 1 1	Not Present	MIS PARSE		Not Present			100
Two-way left-turn lane (present/not p	resent)		Not Present			Not Present			
Roadside hazard rating (1-7 scale)		11.51	3			2	N. MIEZZA		
Segment lighting (present/not presen			Not Present						
Auto speed enforcement (present/no	present)		Not Present			Not Present			17.10
Calibration Factor, Cr			1	DESCRIPTION OF THE PERSON OF T		1.00			

0111 12		Works	sheet 1B Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Nay Roadwa	y Segments	10 000		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane	CMF for	CMF for	CMF for Super-	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	Combine
Width	Shoulder Width	Horizontal	elevation	Grades	Driveway	Centerline	Passing	Two-Way	Roadside	Lighting	Automated	CMF
	and Type	Curves			Density	Rumble	Lanes	Left-Turn	Design	15 2 2	Speed	
						Strips		Lane			Enforcement	
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF comb
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15,	10-11	10-17	Section	Section	Equation 10	10-20	10-21	10.7.1	x(11)x(12)
l l			or 10-16			10.7.1	10.7.1	18 & 10-19	17.75	A		
1.01	1.05	2.05	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	2.042

	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency, N
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0,017	1.80	1.000	0,017	2.04	1.00	0,034
Fatal and Injury (FI)			0.321	0,005	2,04	1.00	0.011
Property Damage Only (PDO)	_	_	0.679	0,011	2.04	1.00	0.023

(1)	(2)	(3)	(4)	(5)	(8)	(7)
Collision Type	Proportion of Collision Type(101AL)	N produced re (TOTAL) (crashes/year)	Proportion of Collision Type _(F4)	N produced in (PI) (crashes/year)	Proportion of Collision Type _(PDO)	N product is [PD0] (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)PDO from Worksheet 1C
Total	1.000	0.034	1.000	0.011	1.000	0.023
		(2)x(3)total		(4)x(5)n		(B)x(7) _{PDO}
			SINGLE-VEHICLE			
Collision with animal	0.121	0.004	0.038	0.000	0.184	0.004
collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
lan off road	0.521	0.018	0.545	0.008	0.505	0.012
other single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0.001
otal single-vehicle crashes	0.693	0.024	0.638	0.007	0.735	0,017
F-1		-	MULTIPLE-VEHICLE			
ingle collision	0.085	0.003	0,100	0.001	0.072	0.002
lead-on collision	0.016	0,001	0.034	0.000	0.003	0.000
lear-end collision	0.142	0.005	0.184	0,002	0.122	0.003
ideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0.027	0.001	0.026	0.000	0.030	0.001
Total multiple-vehicle crashes	0.307	0.011	0.382	0.004	0.265	0.006

Worksheet 1E — Summary Results for Rural Two-Lane Two-Way Roadway Segments										
(1)	(2)	(3)	(4)	(5)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year						
	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)						
Total	1.000	D,0	0.131	0.3						
Fatal and Injury (FI)	0.321	0.0	0.131	0.1						
Property Damage Only (PDO)	0,679	0.0	0.131	0.2						

Paraiso Springs Road - Segment A Base Prediction (1991-2010)

	General Information	- I the same and the same	L	cation Infor	nation		13 27 13 11 11	State of
Analyst Agency or Company Date Performed	Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Spri Segme	ent A		
	07/29/11	Jurisdiction			Monterey C	ounty, CA		
Analysis Condition	Hist, Base Calc. (1991-2010 Avg ADT)	Analysis Year						<u> </u>
Input Data		Base Conditions		S	ite Conditions	200		
Length of segment, L (mi)		-		NAME OF BRIDE	0,131	TENTRUS I	111111111111111111111111111111111111111	
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)			5 TO 100	385	of the latest of	36 36 00	AADT OK
Lane width (ft)		12	B. Charles		10 5			
Shoulder width (ft)		6	Right Shid:	2		Left Shid:	2	
Shoulder type		Paved				Gravel		
Length of horizontal curve (mi)	1 1111	0	Barrier 18	ON PROCES	0.11			
Radius of curvature (ft)		0	STATISTICS NAMED	AND THE RES	450	EXPERT UNITED		Radius Value O
Spiral transition curve (present/not pre	sent)	Not Present		"SER SUS	Not Present	I HARRIST TO	Contract.	
Superelevation variance (ft/ft)		< 0.01	The state of the s		0			
Grade (%)		0	SOMEWHEL		0	(Internal Control of the Control of	SELLOWS !	
Driveway density (driveways/mile)		5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12(19)	0		No.	
Centerline rumble strips (present/not		Not Present			Not Present			
Passing lanes [present (1 lane) /prese		Not Present	ALL SEVERI		Not Present			
Two-way left-turn lane (present/not pr			Not Present					
Roadside hazard rating (1-7 scale)		3	2					
Segment lighting (present/not present		Not Present Not Present						
Auto speed enforcement (present/not	present)	Not Present	Not Present					
Calibration Factor, Cr		1	Dealer County	OR HANDING	1.00	107/02/2010 http://www.	4.9	ā .

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation 10-11	from Equation 10 12	from Equation 10-13	from Equations 10-14, 10-15, or 10-16	from Table 10-11	from Equation 10-17	from Section 10.7.1	from Section 10.7.1	from Equation 10- 18 & 10-19		from Equation 10-21	from Section	
1.01	1,05	2.05	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	2.019

	Works	heet 1C Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments	- 11 11	155 1
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter,	Crash Severity	N spf rs by Severity	Combined	Calibration	Predicted average
		k	Distribution	Distribution	CMFs	Factor, Cr	crash frequency,
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(8)x(7)
Fotal	0.013	1.80	1.000	0.013	2.02	1.00	0.027
atal and Injury (FI)	-		0.321	0.004	2.02	1.00	0.009
Property Damage Only (PDO)	-		0.679	0.009	2.02	1.00	0.018

(1)	(2)	(3)	(4)	(5)	(8)	(7)
Collision Type	Proportion of Collision Type(101AL)	N productor (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N predicted in (FI) (crashes/year)	Proportion of Collision Type(PDO)	N producers (PDD) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)∈ from Worksheet 1C	from Table 10-4	(8)eco from Worksheet 1C
otal	1,000	0.027	1.000	0.009	1,000	0,018
_		(2)x(3)total		(4)x(5)n		(6)x(7)PD0
			SINGLE-VEHICLE			
Collision with animal	0.121	0.003	0.038	0.000	0.184	0.003
ollision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Pverturned	0.025	0.001	0,037	0.000	0.015	0.000
an off road	0.521	0.014	0.545	0.005	0.505	0.009
ther single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0.001
otal single-vehicle crashes	0.693	0.019	0.638	0.006	0.735	0.014
			MULTIPLE-VEHICLE	Same Co		1111
ingle collision	0.085	0.002	0.100	0.001	0.072	0,001
lead-on collision	0.016	0.000	0.034	0.000	0.003	0.000
ear-end collision	0.142	0.004	0.184	0,001	0.122	0.002
ideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
ther multiple-vehicle collision	0.027	0.001	0.026	0.000	0.030	0.001
otal multiple-vehicle crashes	0.307	0.008	0.382	0.003	0.265	0.005

Worksheet 1E Summary Results for Rural Two-Lane Two-Way Roadway Segments										
(1)	(2)	(3)	(4)	(5)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)						
	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)						
Total	1.000	0.0	0.131	0.2						
Fatal and Injury (FI)	0.321	0.0	0.131	0.1						
Property Damage Only (PDO)	0.679	0.0	0.131	0.1						

ATTACHMENT D PREDICTED AVERAGE CRASH FREQUENCY CALCULATION WORKSHEETS

Paraiso Springs Road Segment B

Paraiso Springs Road - Segment B 1991-2005

Ge	neral Information	THE PERSON NAMED IN	L.o	cation Infor	nation		1,000	
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Spr Segmi	the second second second second		100
Date Performed	07/29/11	Jurisdiction		Monterey County, CA				MINAN
Analysis Condition	1991-2005	Analysis Year	1991			1.0		
	Input Data	Base Conditions	1	S	ite Condition	5		_
Length of segment, L (mi)		-			0,568		910000	
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)	W	THE REAL PROPERTY.	THE RESIDENCE	431	Marine Contract	Market (See	AADT OK
Lane width (ft)		12	ALL CLASS	aller Statement	9		-	
Shoulder width (ft)		6	Right Shid:	1		Left Shid:	1	•
Shoulder type				Gravel	NAME OF TAXABLE PARTY.	Left Shid:	Gravel	
Length of horizontal curve (mi)		0	0.00					
Radius of curvature (ft)		0	public and appropriate the property of the same of the public of the same				Radius Value Ol	
Spiral transition curve (present/not prese	nt)	Not Present	(A) ELECTRICAL		Not Present		india y	1
Superelevation variance (ft/ft)		< 0.01		i salah men	0	SYMMERICA PARTIES		
Grade (%)	No. of the last of	0		and fill and	0		STATE OF THE PARTY.	
Driveway density (driveways/mile)		5	SHOW SHOW SHOW		5		- /- 97/46/4	
Centerline rumble strips (present/not pre	sent)	Not Present	200		Not Present		1000	
Passing lanes [present (1 lane) /present	(2 lane) / not present)]	Not Present			Not Present			
Two-way left-turn lane (present/not pres	ent)	Not Present	THE POST		Not Present			
Roadside hazard rating (1-7 scale)		3	Rin Bills		2			
Segment lighting (present/not present)		Not Present			Not Present			
Auto speed enforcement (present/not pr	esent)	Not Present			Not Present			
Calibration Factor, Cr	TRUE TO THE PARTY OF THE PARTY	1			1.00	manufall .	111 274	

(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)	- (11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type		CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF Br	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation 10-11	from Equation 10- 12	from Equation 10-13	from Equations 10-14, 10-15, or 10-16	from Table 10-11	from Equation 10-17	from Section 10.7.1	from Section 10.7,1	from Equation 10 18 & 10-19		from Equation 10-21		(1)x(2)x x(11)x(12
1.03	1,05	1.00	1,00	1.00	1,00	1,00	1,00	1.00	0.94	1,00	1.00	1.017

22 2 11 21	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		100
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.085	0,42	1.000	0.065	1,02	1.00	0.067
Fatal and Injury (FI)			0.321	0.021	1.02	1.00	0.021
Property Damage Only (PDO)	-		0.679	0.044	1.02	1.00	0.045

(1)	(2)	(3)	(4)	(5)	(6)	. (7)
Collision Type	Proportion of Collision Type(потац)	N productor (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N produced rs (FG) (crashes/year)	Proportion of Collision Type _(Poo)	N predictor (PDD) (crashes/year)
	from Table	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)# from Worksheet 1C	from Table 10-4	(8)PDD from Worksheet 1C
Total	1,000	0.067	1,000	0.021	1,000	0.045
		(2)x(3)total	11 11 11 11 11 11	(4)x(5)n		(6)x(7)ppo
1			SINGLE-VEHICLE	THE RESIDENCE		11.11111
Collision with animal	0.121	0.008	0.038	0.001	0.184	0,008
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	. 0.002	0.037	0.001	0.015	0.001
Ran off road	0,521	0.035	0.545	0.012	0.505	0.023
Other single-vehicle collision	0,021	0.001	0.007	0.000	0.029	0.001
Total single-vehicle crashes	0.693	0.046	0.638	0.014	0.735	0.033
340	relation.	- 3:	MULTIPLE-VEHICLE			name I all
Angle collision	0.085	0.006	0.100	0.002	0.072	0.003
lead-on collision	0.016	0.001	0.034	0.001	0.003	0.000
Rear-end collision	0.142	0.009	0.164	0.004	0.122	0,008
Sideswipe collision	0.037	0.002	0.038	0.001	0,038	0.002
Other multiple-vehicle collision	0.027	0.002	0.028	0.001	0.030	0.001
Total multiple-vehicle crashes	0.307	0.020	0.362	0.008	0.265	0.012

and the first of	Worksheet 1E - Summary Results for Rural 1	lwo-Lane Two-Way Roadway Se	gments	10.1
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)
Total	1.000	0.1	0.568	0.1
Fatal and Injury (FI)	0.321	0.0	0,568	0.0
Property Damage Only (PDO)	0.679	0,0	0.568	0.1

Paraiso Springs Road - Segment B 2006-2010

G	eneral Information	2	Lo	cation infor	nation		19.4	- W. T.
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Spri Segme			1
Date Performed	07/29/11	Jurisdiction	Monterey County, CA					
Analysis Condition	2008-2010	Analysis Year			200	6		07
	Input Data	Base Conditions		9	ite Condition	141	0.00	•
Length of segment, L (mi)			0.588			Marie V		
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)	419	Transaction of	and the second second	118	The other state of	-	AADT OK
Lane width (ft)		12	Indiana and a		9	The section of the section of		
Shoulder width (ft)	B 0 54 54 55 5	6	Right Shid:	1	The same of	Left Shid:	1	100000
Shoulder type			Right Shid:	Gravel		Left Shid	Gravel	t e
Length of horizontal curve (mi)			Printerson Andrews		0.00	STATE OF STREET	TO 1 1 1 1 1 1	61
Radius of curvature (ft)	The second secon	0	THE RESERVE OF THE PARTY OF THE			177 P. L.	Radius Value O	
Spiral transition curve (present/not pres	ent)	Not Present			Not Present		TOTAL ST	28.00
Superelevation variance (ft/ft)		< 0.01	0			A Victor		
Grade (%)	11 101	0	AUGUST DESCRIPTION	and the second	0			R.
Driveway density (driveways/mile)		5		STATUTE OF THE PARTY OF THE PAR	0	THE SEVENIES	THE PROPERTY OF	
Centerline rumble strips (present/not pr	esent)	Not Present			Not Present			
Passing lanes [present (1 lane) /present	(2 lane) / not present)]	Not Present	Call Control of the		Not Present			- 1
Two-way left-turn lane (present/not pres	ent)	Not Present	0.00		Not Present			
Roadside hazard rating (1-7 scale)		3			2			
Segment lighting (present/not present)		Not Present	Real Property		Not Present			
Auto speed enforcement (present/not p	esent)	Not Present	REGION TO THE		Not Present			
Calibration Factor, Cr		1	7-1-12-12-12-12-12-12-12-12-12-12-12-12-1	of the Park of the	1.00		and the land	

111771		Work	sheet 1B Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Way Roadwa	y Segments			1.00
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
	from Equation 10		from Equations		from Equation		from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10 18 & 10-19	10-20	10-21	10.7.1	x(11)x(12
1,03	1,05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	1.009

37 137 1/11	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		12.1
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
l otal	0.018	0.42	1,000	0,018	1.01	1.00	0,018
atal and Injury (FI)			0,321	0,006	1.01	1.00	0,008
Property Damage Only (PDO)	-	- C C C C C C C C	0.679	0.012	1.01	1.00	0,012

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(rotal)	N predent's (TOTAL) (crashes/year)	Proportion of Collision Typere	N produced rx (FD) (crashes/year)	Proportion of Collision Type _(POO)	N proteotre (P00) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	Norksheet 1C From Table 10-4 (8)= from Worksheet Type=pool	from Table 10-4	(8)Poo from Worksheet 1C	
Total	1,000	0.018	1.000	0.006	1,000	0.012
11 (45)		(2)x(3)total	27	(4)x(5)n		(8)x(7)eco
			SINGLE-VEHICLE	12		
Coffision with animal	0,121	0.002	0.038	0.000	0.184	0.002
Collision with bicycle	0,002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	D.007	0.000	0,001	0,000
Overturned	0,025	0.000	0.037	0.000	0.015	0.000
Ran off road	0,521	0.009	0.545	0.003	0.505	0.006
Other single-vehicle collision	0.021	0.000	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0,693	0.013	0.638	0.004	0.735	0.009
n =		. 5	MULTIPLE-VEHICLE	1 117 11	111	COLUMN TO THE REAL PROPERTY.
Angle collision	0.085	0.002	0.100	0,001	0.072	0.001
Head-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0.003	0.164	0.001	0.122	0.001
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0.000
Other multiple-vehicle collision	0.027	0.000	0.026	0.000	0.030	0.000
Total multiple-vehicle crashes	0.307	0.006	0.382	0.002	0.265	0.003

and stands of	Worksheet 1E - Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments	199
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C		(3)/(4)
Total	1.000	0.0	0,588	0.0
Fatal and Injury (FI)	0.321	0.0	0.588	0.0
Property Damage Only (PDO)	0.679	0.0	0.568	0.0

Paraiso Springs Road - Segment B Phase 4 - Buildout

	eneral Information		Loc	cation Inform	nation	LYSEL WILLIAM	
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Sprii Segme	nt B	
Date Performed	07/29/11	Jurisdiction	100		Monterey Co	unty, CA	
Analysis Condition	Phase 4 - Buildout	Analysis Year	5,000 1100 0				
	Input Data	Base Conditions		8	ite Conditions		
Length of segment, L (mi)		-	C. C	A BALLO MANAGE	0.568		August .
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)		A STATE OF THE PARTY OF THE PAR		450	TO SERVICE STATE	AADT OK
Lane width (ft)	and the second s	12		VALUE OF STREET	9		NAME OF TAXABLE PARTY.
Shoulder width (ft)		6	Right Shid:	1	ST. PRINCE	Left Shid:	1
Shoulder type	oulder type		Right Shid:	Gravel			avel
Length of horizontal curve (mi)		0	0.00			ED STATE	
Radius of curvature (ft)		0	0			Radius Valu	
Spiral transition curve (present/not pre-	ent)	Not Present	an Arma		Not Present		
Superelevation variance (ft/ft)		< 0.01			0		
Grade (%)		0	STATE OF THE STATE	Sie Carl	0		NAME OF TAXABLE PARTY.
Driveway density (driveways/mile)		5	MANUEL MANUEL		0		100000
Centerline rumble strips (present/not p		Not Present	200 mg		Not Present		
Passing lanes [present (1 lane) /preser		Not Present			Not Present		
Two-way left-turn lane (present/not pre	sent)	Not Present			Not Present		
Roadside hazard rating (1-7 scale)		3	110 Yes (12)		2		
Segment lighting (present/not present)		Not Present			Not Present	West - Philips	200
Auto speed enforcement (present/not)	resent)	Not Present	BUSSING		Not Present		1000
Calibration Factor, Cr		1		A STATE OF THE PARTY OF THE PAR	1.00	THE PARTY OF THE P	STATE OF THE PARTY

(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting		Combined
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF comb
from Equation 10-11	from Equation 10- 12	from Equation 10-13	from Equations 10-14, 10-15, or 10-16	from Table 10-11	from Equation 10-17	from Section 10.7.1	from Section 10.7.1	from Equation 10- 18 & 10-19		from Equation 10-21	from Section	
1.04	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	1.023

Worksheet 1C Roadway Segment Crashes for Rural Two-Lane Two-Way Roadway Segments									
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)		
Crash Severity Level	N spf rs	Overdispersion Parameter,	Crash Severity	N spf rs by Severity	Combined	Calibration	Predicted average		
		K K	Distribution	Distribution	CMFs	Factor, Cr	crash frequency,		
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(8)x(7)		
Total	0.068	0.42	1.000	0,068	1.02	1.00	0.070		
Fatal and Injury (FI)		_	0.321	0,022	1.02	1.00	0.022		
Property Damage Only (PDO)	_	-	0.879	0.048	1.02	1.00	0.047		

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(107AL)	N productor (TOTAL) (crashes/year)	Proportion of Collision Type _{(Pq}	N predicted re (FI) (crashes/year)	Proportion of Collision Type _(PDO)	N productor (PDO) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)eso from Worksheet 1C
Total	1.000	0.070	1.000	0.022	1.000	0.047
	C (3) (C	(2)x(3)total	119 119	(4)x(5)n		(8)x(7)poo
El c	1 - 2		SINGLE-VEHICLE	1000 01-00		
Collision with animal	0.121	0.008	0.038	0,001	0.184	0.009
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.002	0.037	0.001	0.015	0.001
Ran off road	0.521	0.038	0.545	0.012	0.505	0.024
Other single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0.001
Total single-vehicle crashes	0.693	0.048	0.638	0.014	0.735	0.035
	0.018	162.5	MULTIPLE-VEHICLE	The same of		e de la companya de
Angte cottision	0.085	0.006	0.100	0,002	0.072	0.003
Head-on collision	0.016	0.001	0.034	0.001	0.003	0.000
Rear-end collision	0.142	0.010	0.164	0,004	0.122	0.006
Sideswipe collision	0.037	0.003	0.038	0,001	0.038	0.002
Other multiple-vehicle collision	0.027	0.002	0.026	0.001	0.030	0.001
Total multiple-vehicle crashes	0.307	0.021	0.362	0,008	0.265	0.013

Worksheet 1E Summary Results for Rural Two-Lane Two-Way Roadway Segments								
(1)	(2)	(2) (3) (4)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)				
= 111	(4) from Worksheet 1C	(8) from Worksheet 1C	1 1	(3)/(4)				
Total	1.000	0.1	0.588	0.1				
Fatal and Injury (FI)	0.321	0.0	0.568	0.0				
Property Damage Only (PDO)	0.679	0.0	0.588	0.1				

Paraiso Springs Road - Segment B Base Prediction (1991-2010)

Ge	neral Information		975 19				
Analyst Agency or Company Date Performed Analysis Condition	DT Hatch Mott MacDonald 07/29/11 Hist. Base Calc. (1991-2010 Avg ADT)	Roadway Roadway Section Jurisdiction Analysis Year	way Section Segment B iction Monterey County, CA				
	Input Data			Site	Conditions		-
Length of segment, L (mi)	-	Site Conditions 0.588					
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)		A Mariana	The second second	352	THE REAL PROPERTY.	AADT OK
Lane width (ft)		12	9 10 10 10 10 10 10 10 10 10 10 10 10 10			7000	
Shoulder width (ft)		6	Right Shid:	1	Left Shid:	1	4
Shoulder type		Paved	Right Shid:	Gravel	Left Shid:	Gravel	
Length of horizontal curve (mi)		0	(dylanes) (III)	NAME OF TAXABLE PARTY.	0.00		
Radius of curvature (ft)	The state of the s	0	0			Radius Value C	
Spiral transition curve (present/not prese	nt)	Not Present	Not Present			1	
Superelevation variance (ft/ft)		< 0.01				District.	
Grade (%)		0	0			and the same	
Driveway density (driveways/mile)		5	Westerses with the say of the design contracts			1/84	M
Centerline rumble strips (present/not pre	sent)	Not Present	Not Present				
Passing lanes [present (1 lane) /present (2 lane) / not present)]		Not Present	Not Present				
Two-way left-turn lane (present/not present)		Not Present	Not Present				
Roadside hazard rating (1-7 scale)	3	2					
Segment lighting (present/not present)	Not Present	Not Present					
Auto speed enforcement (present/not pr	esent)	Not Present	E STATE OF	No	t Present		
Calibration Factor, Cr		1	THE PROPERTY AND ADDRESS.	A STATE OF THE OWNER,	1.00	THE STREET	8

		Work	sheet 1B — Cras	n Modificatio	n Factors for F	Kurai Two-L	ARP TWO-	Way Roadwa	y Segments		m 11 m m (4)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combined CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10- 18 & 10-19		10-21	10.7.1	x(11)x(12
1.03	1.05	1.00	1.00	1.00	1.00	1.00	1,00	1.00	0.94	1,00	1.00	1,009

	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments	Worksheet 1C — Roadway Segment Crashes for Rural Two-Lane Two-Way Roadway Segments									
(1)	(2)	(2) (3) (4) (5)		(5)	(6)	(7)	(8)								
Crash Severity Level	N spf rs	Overdispersion Parameter,	Crash Severity	Crash Severity N spf rs by Severity		Calibration	Predicted average								
	k		Distribution	Distribution	CMFs	Factor, Cr	crash frequency,								
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B	li li	(5)x(6)x(7)								
Total	0.053	0.42	1.000	0,053	1.01	1.00	0.054								
Fatal and Injury (FI)	_	-	0.321	0,017	1.01	1.00	0.017								
Property Damage Only (PDO)			0.679	0.038	1.01	1.00	0.037								

(1)	(2)	(3)	(4)	(5)	(8)	(7)
Collision Type	Proportion of Collision Typerroral	N produced in (TOTAL) (Crashes/year)	Proportion of Collision Type _{(Fig}	N produced is (Fig (crashes/year)	Proportion of Collision Type _(POO)	N prodenotes (P00) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)roo from Worksheet 1C
Total	1,000	0.054	1,000	0.017	1.000	0.037
H Dec		(2)x(3)total		(4)x(5)я		(6)x(7)ppo
			SINGLE-VEHICLE			518 181818 45
Collision with animal	0.121	0.007	0.038	0.001	0.184	0.007
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0,001	0.015	0.001
Ran off road	0.521	0.028	0.545	0.009	0.505	0.018
Other single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0,001
otal single-vehicle crashes	0.693	0.037	0.638	0,011	0.735	0.027
		121 010	MULTIPLE-VEHICLE	111111		LIE I
Angle collision	0.085	0.005	0.100	0,002	0.072	0.003
lead-on collision	0.016	0.001	0.034	0.001	0.003	0.000
Rear-end collision	0.142	0.008	0.164	0.003	0.122	0.004
ideswipe collision	0.037	0.002	0.038	0.001	0.038	0.001
Other multiple-vehicle collision	0.027	0.001	0.028	0.000	0.030	0,001
Total multiple-vehicle crashes	0.307	0.017	0.362	0.006	0.265	0.010

Worksheet 1E — Summary Results for Rural Two-Lane Two-Way Roadway Segments									
(1)	(2)	(2) (3)		(5)					
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)					
	(4) from Worksheet 1C	(8) from Worksheet 1C	7	(3)/(4)					
Total	1.000	0.1	0.588	0.1					
Fatal and Injury (FI)	0.321	0.0	0.568	0.0					
Property Damage Only (PDO)	0.679	0.0	0.588	0,1					

ATTACHMENT E PREDICTED AVERAGE CRASH FREQUENCY CALCULATION WORKSHEETS

Paraiso Springs Road Segment C

Paraiso Springs Road - Segment C 1991-2005

Ge	neral Information	at hitch of Landing	Lo	cation Inform	nation		118.50	
Analyst Agency or Company Date Performed	DT Hatch Mott MacDonald	Roadway Roadway Section Jurisdiction			Paraiso Spri Segme	ent C		
Analysis Condition	07/29/11	A CONTRACTOR OF THE PARTY OF TH	Jurisdiction Monterey County, Analysis Year 1991		bushed and open the of the said			
Analysis Collubbit			_					
	Input Data	Base Conditions	Site Conditions				_	
Length of segment, L (mi)		_	Market W		0.208	Line and delice and		and the second
AADT (veh/day)	AADT _{MX} = 17,800 (veh/day)		398					AADT OK
Lane width (ft)	0.000	12			9	I SHAME THE		
Shoulder width (ft)		6	Right Shid:	1		Left Shid:	1	
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)	111 111 111	0	models can an experience of the control of the cont					
Radius of curvature (ft)		0	0				Radius Value C	
Spiral transition curve (present/not prese	nt)	Not Present	Design Holes		Not Present			
Superelevation variance (ft/ft)		< 0.01			0			
Grade (%)		0	Section 18th		0		2000	
Driveway density (driveways/mile)		5	gue-funciona	ALL DESCRIPTION OF THE PERSON	5		A STATE OF	
Centerline rumble strips (present/not pre		Not Present	Haras Sail		Not Present			
Passing lanes [present (1 lane) /present		Not Present			Not Present			
Two-way left-turn lane (present/not pres	ent)	Not Present			Not Present			
Roadside hazard rating (1-7 scale)		3	V. Carrier		3			
Segment lighting (present/not present)		Not Present			Not Present			100
Auto speed enforcement (present/not pr	esent)	Not Present			Not Present			
Calibration Factor, Cr		1	Section 2	THE RESIDENCE OF THE PARTY OF T	1.00	THE PERSON NAMED IN	lie politic	

		Work	sheet 1B - Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Way Roadwa	y Segments			
(1)	(2)	(3)	(4)	_ (5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF Br	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-18	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10 18 & 10-19	10-20	10-21	10,7,1	x(11)x(12)
1,03	1,05	1,00	1.00	1.00	1.00	1.00	1,00	1.00	1,00	1.00	1.00	1,079

	Works	heet 1C — Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	y Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency, N
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.022	1,13	1.000	0,022	1.08	1.00	0.024
Fatal and injury (FI)	-		0.321	0.007	1.08	1.00	800.0
Property Damage Only (PDO)	_	<u>-</u>	0.679	0.015	1.08	1,00	0,016

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N predictor or (TOTAL) (crashes/year)	Proportion of Collision Type _(Pt)	N produted in (FQ (crashes/year)	Proportion of Collision Type _(P00)	N predicted in (PDD) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8) _{POO} from Worksheet 1C
Total	1,000	0.024	1.000	0.008	1,000	0.016
		(2)x(3)тоты.		(4)x(5)n		(6)x(7)P00
	1111 11111	11151	SINGLE-VEHICLE	5 5 1251		10 of 2000
Collision with animal	0.121	0.003	0.038	0.000	0.184	0.003
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0,000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0.521	0.012	0.545	0.004	0.505	0,008
Other single-vehicle collision	0.021	0,001	0.007	0.000	0.029	0,000
Total single-vehicle crashes	0,693	0.017	0.638	0.005	0.735	0.012
		4 1974	MULTIPLE-VEHICLE	Hills	-10	I La I
Angle collision	0.085	0.002	0.100	0,001	0.072	0.001
lead-on collision	0.016	0.000	0.034	0,000	0.003	0.000
Rear-end collision	0.142	0.003	0.164	0,001	0.122	0.002
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0,001
Other multiple-vehicle collision	0.027	0.001	0.026	0.000	0,030	0,000
Total multiple-vehicle crashes	0.307	0.007	0.362	0,003	0.265	0.004

DESCRIPTION OF THE PROPERTY OF	Worksheet 1E — Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	7 1	(3)/(4)
Total	1,000	0.0	0.208	0.1
Fatal and Injury (FI)	0.321	0.0	0.208	0.0
Property Damage Only (PDO)	0.679	0.0	0.208	0.1

Paraiso Springs Road - Segment C 2006-2010

G	eneral Information	and the desired a second	Lo	cation Informa	ation		0.00	
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Sprii Segma	the second second second second		
Date Performed	07/29/11	Jurisdiction	I		Monterey Co	ounty, CA		180
Analysis Condition	2006-2010	Analysis Year			200	В		12
	Input Data	Base Conditions	100	Sit	e Conditions	Towns III I W		-
Length of segment, L (ml)	1 111 111	-	framework and the		0.208		10.00000	And the second
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)				85	Market Viversi	YOU WEST	AADT OK
Lane width (ft)		12	Section 1981	CONTRACTOR OF	9	THE RESIDENCE		
Shoulder width (ft)			Right Shid:	1	V-00-0	Left Shid:	1	
Shoulder type			Right Shid:	Gravel	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Left Shid:	Gravel	
Length of horizontal curve (mi)		0	0,00					
Radius of curvature (ft)		0	0				Radius Value Ol	
Spiral transition curve (present/not pres	ent)	Not Present		011012	Not Present		11.5%(0).11	
Superelevation variance (ft/ft)		< 0.01	San Milaton		0			
Grade (%)		0		The Part of the Pa	0		(S) 1 (C)	
Driveway density (driveways/mile)		5	DATE OF TA	And the second	0			
Centerline rumble strips (present/not pr	esent)	Not Present	St.	The second second	lot Present		DESCRIPTION.	
Passing lanes [present (1 lane) /present	t (2 lane) / not present)]	Not Present	Section 201		Not Present			
Two-way left-turn lane (present/not pre-	sent)	Not Present	201001000000000000000000000000000000000	P. Company	Not Present			
Roadside hazard rating (1-7 scale)		3	ASSESSED IN		3			
Segment lighting (present/not present)		Not Present		1	Not Present			
Auto speed enforcement (present/not p	resent)	Not Present			Not Present			1111
Calibration Factor, Cr		1	SHIP SHEW WHEN PER		1.00		The second second	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combined CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF comi
from Equation 10-11	from Equation 10 12	from Equation 10-13	from Equations 10-14, 10-15, or 10-16	from Table 10-11	from Equation 10-17	from Section 10.7.1	from Section 10.7.1	from Equation 10- 18 & 10-19		from Equation 10-21		(1)x(2)x x(11)x(12
1.03	1.05	1.00	1.00	1.00	1,00	1.00	1,00	1.00	1.00	1,00	1,00	1.079

2. 11 11	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter,	Crash Severity	N spf rs by Severity	Combined	Calibration	Predicted average
		k k	Distribution	Distribution	CMFs	Factor, Cr	crash frequency, N
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B	:::	(5)x(8)x(7)
Total	0.005	1,13	1,000	0.005	1.08	1.00	0.005
Fatal and Injury (FI)	_	-	0,321	0.002	1.08	1.00	0,002
Property Damage Only (PDO)			0.679	0.003	1.08	1.00	0.003

(1)	(2)	(3)	(4)	(5)	(8)	(7)
Collision Type	Proportion of Collision Type(TOTAL)	N proteind in (TOTAL) {crashes/year}	Proportion of Collision Type _(Pi)	N productor (FI) (crashes/year)	Proportion of Collision Type(POO)	N protend is (P00) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)PDO from Worksheet 1C
Total	1.000	0.005	1.000	0.002	1.000	0.003
	11 11 11 11	(2)x(3)total		(4)x(5)n		(6)x(7)ppo
			SINGLE-VEHICLE	10. 10.5 11111	31	B11 11 B1 11
Collision with animal	0.121	0.001	0.038	0.000	0,184	0,001
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0,003	0.000	0.007	- 0.000	0.001	0.000 -
Overturned	0.025	0.000	0.037	0.000	0,015	0.000
Ran off road	0.521	0.003	0,545	0.001	0.505	0.002
Other single-vehicle collision	0,021	0.000	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0.693	0.004	0.638	0.001	0.735	0,003
ioi I	COLUMN TO THE REAL PROPERTY.		MULTIPLE-VEHICLE	6447	-	70
Angle collision	0.085	0.000	0.100	0.000	0.072	0.000
Head-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0.001	0.184	0.000	0.122	0.000
Sideswipe collision	0.037	0.000	0.038	0.000	0.038	0.000
Other multiple-vehicle collision	0.027	0.000	0.026	0.000	0.030	0.000
Total multiple-vehicle crashes	0.307	0.002	0.362	0,001	0.265	0.001

	Worksheet 1E - Summary Results for Rural T	wo-Lane Two-Way Roadway S	gments	200 0
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)
Total	1.000	0.0	0.208	0.0
Fatal and Injury (FI)	0.321	0.0	0.208	0.0
Property Damage Only (PDO)	0.679	0.0	0.208	0.0

Paraiso Springs Road - Segment C Phase 4 - Buildout

Ge	neral Information	A Section of the least	Lo	cation Infor	mation			
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Spri Segme	The second secon		
Date Performed	07/29/11	Jurisdiction	100		Monterey C	ounty. CA		
Analysis Condition	Phase 4 - Bulldout	Analysis Year	Analysis Year					
	Input Data	Base Conditions			ite Condition	100		•
Length of segment, L (mi)	and the second s	-			0.208	The same		
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)		Photo Control		417		I DESIGNATION OF THE PARTY OF T	AADT OK
Lane width (ft)		12	No. of Con-	NO DE LA COLOR	9	The same of the sa	OF STREET	
pulder width (ft)		6	Right Shid:	1	10000	Left Shid:	1	
Shoulder type		Paved	Right Shid:	Gravet		Left Shid:	Gravei	
Length of horizontal curve (mi)		0	0,00					
Radius of curvature (ft)		0	0				Radius Value Ok	
Spiral transition curve (present/not prese	ent)	Not Present	Real Laboratory		Not Present			
Superelevation variance (ft/ft)		< 0.01	ALL TO SMALL LESS	0.0010101	0			
Grade (%)		0	ASSESSED SERVICES		0			
Driveway density (driveways/mile)		5	AUTOM STON	All medical	0	Treating live and		B
Centerline rumble strips (present/not pre		Not Present			Not Present			
Passing lanes [present (1 lane) /present		Not Present	12000		Not Present			
Two-way left-turn lane (present/not pres	ent)	Not Present	(Automotive States)		Not Present			
Roadside hazard rating (1-7 scale)		3	REPORT OF THE PARTY.		3			
Segment lighting (present/not present)		Not Present	K. Harris		Not Present			
Auto speed enforcement (present/not pr	esent)	Not Present	San San Said	100	Not Present			
Calibration Factor, Cr		1	Block and constitution	CONTRACTOR OF STREET	1.00	CATALOG CO.		

11111		Work	sheet 1B – Cras	h Modificatio	n Factors for I	Rural Two-L	ane Two-l	Way Roadwa	y Segments			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combined CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10- 18 & 10-19		10-21	10.7.1	x(11)x(12)
1.03	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.084

	Works	heet 1C Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadwa	ay Segments			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	$\overline{}$
Crash Severity Level	N spf rs	Overdispersion Parameter,	Crash Severity	N spf rs by Severity	Combined	Calibration	Predicted average	
		k	Distribution	Distribution	CMFs	Factor, Cr	crash frequency,	N
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B	i	(5)x(8)x(7)	
Total	0.023	1.13	1.000	0.023	1.08	1.00	0.025	
Fatal and Injury (FI)	1-	_	0.321	0.007	1.08	1.00	0.008	
Property Damage Only (PDO)	_		0.679	0.016	1.08	1.00	0.017	

(1)	(2)	(3)	(4)	(5)	(B)	(7)
Collision Type	Proportion of Collision Type(тотм.)	N produced or (TOTAL) (crashes/year)	Proportion of Collision Typere	N produced in [75] (crashes/year)	Proportion of Collision Type _(POO)	N predicted to (PDO) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)∍ from Worksheet 1C	from Table 10-4	(8) _{PDO} from Worksheet 1C
Total	1.000	0.025	1.000	0.008	1,000	0,017
_ 10		(2)x(3)total	FI As SENTE	(4)x(5)⊩		(6)x(7)P00
			SINGLE-VEHICLE	1 1 2 11:11		2 1112
Collision with animal	0.121	0.003	0.038	0.000	0.184	0.003
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0.521	0.013	D.545	0.004	0.505	0.009
Other single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0.693	0.017	0.638	0,005	, 0,735	0.013
	11-11	1	MULTIPLE-VEHICLE	Villa .		
Angle collision	0.085	0.002	0.100	0.001	0.072	0,001
lead-on collision	0.016	0.000	0.034	0.000	0.003	0.000
tear-end collision	0.142	0.004	0.164	0,001	0.122	0.002
ideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0.027	0.001	0.026	0.000	0.030	0,001
Total multiple-vehicle crashes	0.307	0.008	0.362	0.003	0.265	0.005

Worksheet 1E — Summary Results for Rural Two-Lane Two-Way Roadway Segments										
(1)	(2)	(3)	(4)	(5)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)						
	(4) from Worksheet 1C	(8) from Worksheet 1C	⊣ i	(3)/(4)						
Total	1,000	0.0	0.208	0.1						
atal and injury (FI)	0.321	0.0	0.208	0.0						
roperty Damage Only (PDO)	0.679	0.0	0.208	0.1						

Paraiso Springs Road - Segment C Base Prediction (1991-2010)

Ge	neral information	the Wild of the	Lo	ocation Informatio	n	
Analyst Agency or Company Date Performed	DT Hatch Mott MacDonald 07/29/11	Roadway Parabo Springs Rd -C Roadway Section Segment C Jurisdiction Monterey County, CA				
Analysis Condition	Hist. Base Calc. (1991-2010 Avg ADT)	Analysis Year				
	Input Data	Base Conditions		Site C	onditions	Value of the last
Length of segment, L (ml)	St. St. Letter	-	Part of the latest		208	10000 E
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)		Summer to the	A CONTRACTOR OF THE PARTY OF TH	320	AADT OK
Lane width (ft)	90000	12	THE REAL PROPERTY.	THE PERSON NAMED IN	9	
Shoulder width (ff)	The second secon	8	Right Shid:	1	Left Shid:	1
Shoulder type		Paved	Right Shid:	Grave	Left Shid: Gr	avel
Length of horizontal curve (ml)	THE THE STREET	0	March 19		0.00	COLUMN TO SERVICE STATE OF THE PERSON SERVICE STATE SERVICE STATE SERVICE STATE OF THE PERSON SERVICE STATE SERVICE STATE SERVICE STATE SERVIC
Radius of curvature (ft)		0	Planta de la companya del companya del companya de la companya de	age En That	0	Radius Value
Spiral transition curve (present/not prese	ent)	Not Present	SHELL WATER	Not	Present	
Superelevation variance (ft/ft)		< 0.01	S. Talles	DESCRIPTION OF THE RESERVE OF THE RE	0	
Grade (%)		0	Acres 1		0	
Driveway density (driveways/mile)		5	LATE OF		0	10000
Centerline rumble strips (present/not pre		Not Present		Not	Present	
Passing lanes [present (1 lane) /present	(2 lane) / not present)]	Not Present	H Alexander	Not	Present	
Two-way left-turn lane (present/not pres	ent)	Not Present	Not Present			
Roadside hazard rating (1-7 scale)	ENTITE TO EXCHANGE	3	PRODUCTION OF THE PROPERTY OF			Sell list
Segment lighting (present/not present)		Not Present		Not	Present	
Auto speed enforcement (present/not pr	esent)	Not Present		Not	Present	
Calibration Factor, Cr					1.00	

		Work	sheet 1B - Cras	h Modificatio	n Factors for I	Rural Two-L	ane Two-	Way Roadwa	y Segments		-71 -9-79	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com.
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10 18 & 10-19		10-21	10.7.1	x(11)x(12
1.03	1.05	1.00	1.00	1.00	1,00	1.00	1.00	1,00	1.00	1.00	1.00	1.079

	Works	heet 1C – Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.018	1,13	1.000	0,018	1.08	1.00	0.019
atal and injury (FI)	_	-	0,321	0,006	1.08	1.00	0,006
Property Damage Only (PDO)	_		0.679	0,012	1.08	1.00	0.013

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(101AL)	N products (TOTAL) (crashes/year)	Proportion of Collision Type _(Pi)	N predicted rs (ग) (crashes/year)	Proportion of Collision Type(PDO)	N produced re (FDD) (crashes/year)
	from Table	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8) _{PDO} from Worksheet 1C
Total	1.000	0.019	1.000	0.006	1,000	0,013
E 24 I	II 11 2 11	(2)x(3)total		(4)x(5) _{FI}		(8)x(7)eoo
			SINGLE-VEHICLE		NET CONTRACTOR	
Collision with animal	0.121	0.002	0.038	0.000	0.184	0.002
Collision with bicycle	0.002	0,000	0.004	0.000	0.001	0.000
Collision with pedestrian	0,003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.000	0.037	0,000	0.015	0,000
Ran off road	0,521	0.010	0.545	0.003	0,505	0,007
Other single-vehicle collision	0.021	0.000	0.007	0.000	0.029	0,000
Total single-vehicle crashes	0,693	0.013	0.638	0.004	0.735	0.010
13	line in		MULTIPLE-VEHICLE	10107		
Angle collision	0.085	0.002	0.100	0.001	0.072	0.001
Head-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0.003	0.164	0.001	0.122	0.002
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0.000
Other multiple-vehicle collision	0.027	0.001	0.026	0.000	0.030	0,000
Total multiple-vehicle crashes	0.307	0.006	0.382	0.002	0.265	0.003

Deal Eyelfor is sw	Worksheet 1E - Summary Results for Rural 1	Two-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (ml)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	7	(3)/(4)
Total	1.000	0.0	0.208	0.1
Fatal and injury (FI)	0.321	0,0	0.208	0.0
Property Damage Only (PDO)	0.679	0.0	0.208	0.1

ATTACHMENT F PREDICTED AVERAGE CRASH FREQUENCY CALCULATION WORKSHEETS

Paraiso Springs Road Segment D

Paraiso Springs Road - Segment D 1991-2005

	General Information	f late North State Control	L	ocation Info	mation		100	-
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section					2010	
Date Performed	07/29/11	Jurisdiction			Monterey C	ounty, CA		
Analysis Condition	1991-2005	Analysis Year			199	1		18
	Input Data	Base Conditions		and the second	Site Conditions	1992		-
Length of segment, L (mi)			0.247			all sales	The state of the s	
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/da	y) –			368		10000	AADT OK
Lane width (ft)	100000000000000000000000000000000000000	12	9					
Shoulder width (ff)		6	Right Shid:	0		Left Shid:	0	Million In
Shoulder type		Paved	Right Shid:	Gravel	Page 2 (1977)	Left Shid:	Gravel	
Length of horizontal curve (mi)		0		Mary Mary 110	0.00		Francis	
Radius of curvature (ft)		0		STREET, ST	0			Radius Value (
Spiral transition curve (present/not pr	esent)	Not Present	had by the		Not Present		0.8	1 to 1
Superelevation variance (ft/ft)		< 0.01	2 - six - \$6101		0	MATTER STEELS	The Court let	
Grade (%)	11 (10)	0			0	2.10	NA.	
Driveway density (driveways/mile)		5	CHEROLECO THE	a mempeter	5	CARL NAME OF STREET		
Centerline rumble strips (present/not	present)	Not Present	1000		Not Present			
Passing lanes [present (1 lane) /present	ent (2 lane) / not present)]	Not Present	GIRLS HA		Not Present	Life Sharedon		11
Two-way left-turn lane (present/not p	resent)	Not Present			Not Present			
Roadside hazard rating (1-7 scale)		3			6			
Segment lighting (present/not presen		Not Present			Not Present			
Auto speed enforcement (present/no	present)	Not Present			Not Present			
Calibration Factor, Cr		1	Section 2011		1.00		Commence.	

11 0 10		Works	sheet 1B Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Way Roadwa	y Segments			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
	from Equation 10			from Table	from Equation		from	from	from Equation	from Equation	from Section	(1)x(2)x .
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10,7.1	Equation 10- 18 & 10-19	10-20	10-21	10,7.1	x(11)x(12
1,03	1.06	1,00	1.00	1.00	1.00	1.00	1.00	1.00	1.22	1,00	1.00	1.329

		heet 1C – Roadway Segment	Oldsites for Italian 144	Calle 1 Wo-118y RoadW	ay organizates		
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)
Crash Severity Level	N spf rs Overdispersion Param k		Parameter, Crash Severity M Distribution		Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(8)x(7)
Total	0.024	0.95	1.000	0.024	1.33	1,00	0.032
Fatal and Injury (FI)	_	_	0.321	800,0	1.33	1,00	0.010
Property Damage Only (PDO)	-		0.879	0.016	1.33	1.00	0.022

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(тотац)	N produced is (TOTAL) (crashes/year)	Proportion of Collision Type _(Pt)	N products (m) (crashes/year)	Proportion of Collision Type _(POO)	N products (PDO) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)⊭ from Worksheet 1C	from Table 10-4	(8)Pco from Worksheet 1C
Total	1.000	0.032	1.000	0.010	1.000	0.022
		(2)x(3)total		(4)x(5)n		(6)x(7)PDO
			SINGLE-VEHICLE	************		
Collision with animal	0.121	0.004	0.038	0.000	0.184	0.004
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0.521	0.017	0.545	0.008	0.505	0.011
Other single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0.001
Total single-vehicle crashes	0.893	0.022	0.638	0.007	0.735	0.016
147			MULTIPLE-VEHICLE			
Angle collision	0.085	0.003	0.100	0.001	0.072	0.002
Head-on collision	0.016	0.001	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0.005	0.164	0.002	0.122	0.003
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0.027	0,001	0.026	0.000	0.030	0.001
Total multiple-vehicle crashes	0.307	0.010	0.382	0.004	0.265	0.008

AND RESIDENCE OF	Worksheet 1E — Summary Results for Rural Two-Lane Two-Way Roadway Segments										
(1)	(2)	(3)	(4)	(5)							
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)							
	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)							
Total	1.000	0.0	0.247159091	0.1							
Fatal and Injury (FI)	0.321	0.0	0.247159091	0.0							
Property Damage Only (PDO)	0.679	0.0	0.247159091	0.1							

Paraiso Springs Road - Segment D 2006-2010

Ge	neral Information	2 1 5 2 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Lo	cation Inform	nation			
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Sprii Segme			2/2
Date Performed	07/29/11	Jurisdiction	Monterey County, CA					
Analysis Condition	2006-2010	Analysis Year	2006					0.0
Input Data		Base Conditions	Site Conditions				-	
ength of segment, L (mi)		-	Service Common Servic	CONTRACTOR OF	0.247	CONTRACT HINCO		
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day	1000	Property and the	- Charles	53	OFFICE	Vot to	AADT OK
Lane width (ft)		12	A STATE OF THE PARTY OF	The section	9	THE R. P. LEWIS CO., LANSING	7000	
Shoulder width (ft)		6	Right Shid:	0	and the property of	Left Shid:	0	
Shoulder type		. Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)		0	Indiana James	III Spanish and	0.00	Anni Spirit Control		
Radius of curvature (ft)		0	O Line and the second of the s			400	Radius Value O	
Spiral transition curve (present/not prese	nt)	Not Present	Not Present			N OF		
Superelevation variance (ft/ft)		< 0.01			0	B) L(d)	1 700	
Grade (%)		0	3 - 191 1		0		Market.	
Driveway density (driveways/mile)		5	-WOON AND		0			
Centerline rumble strips (present/not pre		Not Present			Not Present			9
Passing lanes [present (1 lane) /present		Not Present	Section 1		Not Present			
Two-way left-turn lane (present/not pres	ent)	Not Present			Not Present			
Roadside hazard rating (1-7 scale)		3			6			B
Segment lighting (present/not present)		Not Present	S. Callerine Land		Not Present	The same		
Auto speed enforcement (present/not pr	esent)	Not Present		CENTRAL VALUE	Not Present			
Calibration Factor, Cr		1	SECOND PROPERTY.	-37 - TWS-U	1.00	Andrew Trans	Carrier St.	

		Works	sheet 1B Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Way Roadwa	y Segments		A 11110	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10- 18 & 10-19		10-21		x(11)x(12
1.03	1.08	1.00	1.00	1.00	1.00	1,00	1.00	1.00	1.22	1.00	1.00	1.329

ZZ 192 0/21 T	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadwa	sy Segments		11.5
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	everity Level N spf rs Overdispersion Parame		Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(8)x(7)
otal	0,003	0.95	1,000	0.003	1,33	1.00	0.005
atal and injury (FI)		5 11 -	0,321	0.001	1,33	1.00	0.001
roperty Damage Only (PDO)	-	1 4721	0.679	0.002	1.33	1.00	0.003

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(готац	N produced in (TOTAL) (crashes/year)	Proportion of Collision Type _{(Fig}	N produced rs (FI) (crashes/year)	Proportion of Collision Type _(POO)	N proteiners (PDD) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)= from Worksheet 1C	from Table 10-4	(8) _{PDO} from Worksheet 1C
Total	1.000	0.005	1,000	D.001	1.000	0.003
	" - "	(2)x(3)total		(4)x(5)n	110	(6)x(7)PDO
1122			SINGLE-VEHICLE		-	1 1 2 1
Collision with animal	0.121	0.001	0,038	0.000	0.184	0.001
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0,001	0.000
Overturned	0.025	0.000	0.037	0.000	0.015	0.000
Ran off road	0.521	0.002	0.545	0.001	0.505	0.002
Other single-vehicle collision	0.021	0.000	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0.693	0.003	0.638	0.001	0.735	0.002
NI.			MULTIPLE-VEHICLE	Time of 1		
Angle collision	0.085	0.000	0.100	0.000	0.072	0.000
Head-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0.001	0.164	0.000	0.122	0.000
Sideswipe collision	0.037	0.000	0.038	0.000	0.038	0.000
Other multiple-vehicle collision	0.027	0.000	0,026	0.000	0.030	0.000
Total multiple-vehicle crashes	0.307	0.001	0.362	0.001	0.265	0.001

	Worksheet 1E - Summary Results for Rural 1	Two-Lane Two-Way Roadway S	egments	11.1
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	1 1	(3)/(4)
Total	1.000	0.0	0.247159091	0.0
Fatal and Injury (FI)	0.321	0.0	0.247159091	0.0
Property Damage Only (PDO)	0.879	0.0	0.247159091	0.0

Paraiso Springs Road - Segment D Phase 4 - Buildout

	Worksheet 1A — General Information and Input	Data for Rural Two-Lane 1	wo-Way Road	way Segments		1 6/24 11		_
	General Information	a political representation and the	Lo	cation Informa	tion		1 000	
Analyst	DT	Roadway		ST. Santa	Paraiso Spri	ngs Rd -D	18/11	-111,7
Agency or Company	Hatch Mott MacDonald	Roadway Section	Segment D					
Date Performed	07/29/11	Jurisdiction	Jurisdiction Monterey County. CA					
Analysis Condition	Phase 4 - Buildout	Analysis Year			100			
***	Input Data	Base Conditions	Site Conditions		10/11			
Length of segment, L (ml)			San	AMERICAN DE	0.247			
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/da)		Visition et a		385		Mark Town	AADT OK
Lane width (ft)		12	Section 2	and the latest	9			
Shoulder width (ff)		- 8	Right Shid:	0		Left Shid:	0	10.00
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)		0	C. C. A. C. C.	Maria State Control	0.00		100000	
Radius of curvature (ft)	10 1110	0	(CONTRACTOR OF THE CONTRACTOR			Commence of the	Radius Value O	
Spiral transition curve (present/not pre	esent)	Not Present	K 8		lot Present			
Superelevation variance (ft/ft)		< 0.01		The Control of the Co	0	N CONTRACTOR OF THE PARTY OF TH		
Grade (%)		0	STATE STATE		0	S 32 13 1 1/2 23	SHOW.	
Driveway density (driveways/mile)		5	With Sales and the sales and t	The Market of the	0		William III	T.
Centerline rumble strips (present/not	present)	Not Present	A STATE OF THE PARTY OF	1	lot Present			
Passing lanes [present (1 lane) /pres	ent (2 lane) / not present)]	Not Present	Indiana Sau	SUSSESSION N	lot Present			171
Two-way left-turn lane (present/not p	resent)	Not Present	Marshare	1	lot Present			
Roadside hazard rating (1-7 scale)		3	SHANE OF		6			
Segment lighting (present/not presen		Not Present	All Marie	UNIO REAL R	lot Present			
Auto speed enforcement (present/no	t present)	Not Present	Control of the last		lot Present			
Calibration Factor, Cr	10.001.00	1	all and the state of the state	Control of the same	1.00		2=10454	R +

		Work	sheet 1B Cras	h Modificatio	n Factors for F	tural Two-L	Ane Two-I	Way Roadwa	y Segments			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combiner
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r		CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10,7,1	Section 10,7,1	Equation 10 18 & 10-19		10-21	10.7.1	x(11)x(12)
1.03	1.06	1.00	1.00	1.00	1.00	1,00	1.00	1.00	1.22	1.00	1.00	1,329

11 2	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter,	Crash Severity	N spf rs by Severity	Combined	Calibration	Predicted average
	_ === -	k =	Distribution	Distribution	CMFs	Factor, Cr	crash frequency,
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.025	0.95	1.000	0.025	1,33	1,00	0,034
Fatal and Injury (FI)	-	-	0.321	0.008	1,33	1,00	0,011
Property Damage Only (PDO)		1-	0.679	0.017	1.33	1.00	0.023

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(107AL)	N produced in (TOTAL) (Crashes/year)	Proportion of Collision Type _{(F8}	N predicted re (PI) (crashes/year)	Proportion of Collision Type _(PDO)	N productes (P00) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)⊨ from Worksheet 1C	from Table 10-4	(8) _{PDO} from Worksheet 1C
Total	1,000	0,034	1,000	0,011	1.000	0.023
	II E EQI	(2)x(3) _{TOTAL}		(4)x(5)≈	522	(8)x(7) _{PDO}
11	and make as	X=+12	SINGLE-VEHICLE			1 1111 1
Collision with animal	0.121	0.004	0.038	0,000	0.184	0.004
Collision with bicycle	0,002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0,521	0.018	0,545	0.006	0.505	0.012
Other single-vehicle collision	0.021	0.001	0,007	0.000	0.029	0.001
Total single-vehicle crashes	0.693	0.023	0,638	0,007	0.735	0.017
		The state of the s	MULTIPLE-VEHICLE	01.11.0		1000
Angle collision	0.085	0,003	0.100	0.001	0.072	0.002
lead-on collision	0.016	0.001	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0.005	0.164	0,002 4	0.122	0.003
ideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0.027	0.001	0,028	0.000	0.030	0.001
Total multiple-vehicle crashes	0.307	0,010	0.362	0,004	0.265	0.006

Worksheet 1E – Summary Results for Rural Two-Lane Two-Way Roadway Segments										
(1)	(2)	(3)	(4)	(5)						
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)						
	(4) from Worksheet 1C	(8) from Worksheet 1C	7	(3)/(4)						
Total	1,000	0.0	0.247159091	0.1						
Fatal and Injury (FI)	0.321	0.0	0.247159091	0,0						
Property Damage Only (PDO)	0.679	0.0	0.247159091	0.1						

Paraiso Springs Road - Segment D Base Prediction (1991-2010)

Ge	neral Information		Lo	cation Inform	ation			
Analyst Agency or Company Date Performed	DT Hatch Mott MacDonald 07/29/11	Roadway Roadway Section Jurisdiction			Paraiso Sprii Segme Monterey Co	nt D		11 11
Analysis Condition	Hist. Base Calc. (1991-2010 Avg ADT)	Analysis Year		AALAGA		And the second second		
	Input Data			Sit	e Conditions			
Length of segment, L (mi)	gth of segment, L (mi)				0.247	Manager Bran	The same of	
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)	_	5000 magazin	YOU MUNICIPALITY	287	COLUMN TO SERVICE STATE OF THE		AADT OK
Lane width (ft)		12	evinores de	THE RESERVED	9	MATERIAL STATE		217.0
Shoulder width (ff)		6	Right Shid:	0		Left Shid:	0	
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)		0	SERVICE OF		0.00			
Radius of curvature (ft)		0	A Commence of the Commence of			10 30 W	Radius Value O	
Spiral transition curve (present/not prese	ent)	Not Present			Not Present			
Superelevation variance (ft/ft)		< 0.01			0	STEWN MENT	Mind Wall	
Grade (%)		0			0		Ministry U.S.	
Driveway density (driveways/mile)		. 5	TWO RESIDEN		0	Markette	A STATE OF	
Centerline rumble strips (present/not pre	esent)	Not Present			Not Present			
Passing lanes [present (1 lane) /present	(2 lane) / not present)]	Not Present	1200		Not Present			
Two-way left-turn lane (present/not pres	ent)	Not Present	Wall Deliver	THE REAL PROPERTY.	Not Present			
Roadside hazard rating (1-7 scale)		3			6			
Segment lighting (present/not present)	tion is to be a second of the	Not Present			Not Present			
Auto speed enforcement (present/not pr	esent)	Not Present			Not Present			
Calibration Factor, Cr		1	SALES OF THE REAL PROPERTY.	The second second	1.00	THE RESERVE OF THE PERSON OF T	STORY OF STREET	3

		Work:	sheet 1B – Cras	h Modificatio	n Factors for F	turai Two-L	ane Two-	Way Roadwa	y Segments		30, 610,000	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation 10-11	from Equation 10 12	from Equation 10-13	from Equations 10-14, 10-15, or 10-16	from Table 10-11	from Equation 10-17	from Section 10,7,1	from Section 10.7.1	from Equation 10- 18 & 10-19	10-20	from Equation 10-21		(1)x(2)x . x(11)x(12
1,03	1,08	1,00	1,00	1.00	1.00	1,00	1,00	1.00	1.22	1.00	1.00	1,329

	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadwa	ay Segments	2787000	
(1)	(2)	(3)	(4)	(5)	(B)	(7)	(8)
Crash Severity Level	N spf rs Overdispersion Parame		Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total .	0,019	0,95	1,000	0.019	1,33	1,00	0,025
Fatal and Injury (FI)	_	_	0,321	0.008	1,33	1,00	0,008
Property Damage Only (PDO)			0.679	0.013	1,33	1,00	0,017

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N productor (TOTAL) (crashes/year)	Proportion of Collision Type _{(Fig}	N predicted rs (FI) (crashes/year)	Proportion of Collision Typ appo	N predictor (PDD) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)eoo from Worksheet 1C
Total	1.000	0,025	1.000	0.008	1.000	0,017
		(2)x(3)total	144 A	(4)x(5)⊨		(6)x(7)ppo
			SINGLE-VEHICLE			111
Collision with animal	0,121	0,003	0.038	0.000	0.184	0.003
Collision with bicycle	0,002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0,003	0.000	0.007	0,000	0.001	0.000
Overturned	0,025	0.001	0.037	0.000	0,015	0.000
Ran off road	0.521	0.013	0.545	0.004	0.505	0,009
Other single-vehicle collision	0,021	0.001	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0,693	0.017	0.638	0.005	0.735	0.013
			MULTIPLE-VEHICLE			i alv
Angle collision	0.085	0.002	0.100	0.001	0.072	0,001
Head-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0,004	0.164	0.001	0.122	0.002
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0.027	0.001	0.026	0.000	0.030	0,001
Total multiple-vehicle crashes	0.307	0.008	0.362	0.003	0.265	0.005

	Worksheet 1E — Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)
Total	1.000	0.0	0.247159091	0.1
Fatal and Injury (FI)	0.321	0.0	0.247159091	0.0
Property Damage Only (PDO)	0.879	0.0	0.247159091	0.1

ATTACHMENT G PREDICTED AVERAGE CRASH FREQUENCY CALCULATION WORKSHEETS

Paraiso Springs Road Segment E

Paraiso Springs Road - Segment E 1991-2005

	Beneral Information		Lo	cation Infor	mation	164		
Analyst Agency or Company Date Performed	DT Hatch Mott MacDonald 07/29/11	Roadway Roadway Section			Paraiso Spr Segmi	ent E		,
Analysis Condition	1991-2005	Analysis Year	Monterey County, CA				· ·	
	Input Data	Base Conditions			Site Condition	•		-
Length of segment, L (mi)			Company of the Company		0.237	The state of the state of		
AADT (veh/day)			- 2		333		COOK VI	AADT OK
Lane width (ft)	12	9						
houlder width (ft)		8	Right Shid:	0		Left Shid:	0	
Shoulder type	The state of the s	Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (ml)		0	0.00		1000			
Radius of curvature (ft)		0	A THE REAL PROPERTY.	1007931/00	0		1 1 2 2 3	Redius Value C
Spiral transition curve (present/not pre	sent)	Not Present	STATE OF STREET	100	Not Present	THE RESERVE OF THE PERSON NAMED IN	CALLE	The state of the s
Superelevation variance (ft/ft)		< 0.01		de la companie de la	0	The State of the S		
Grade (%)	U 010	0	S. Carlotte		0	The Residence of the		2
Driveway density (driveways/mile)		5	SECTION AND ADDRESS OF	THE RESIDENCE	5	UK THE STATE	No. of Contract of	
Centerline rumble strips (present/not p	resent)	Not Present		A STORES	Not Present	-26 L		
Passing lanes [present (1 lane) /prese	nt (2 lane) / not present)]	Not Present	Not Present					
Two-way left-turn lane (present/not pre	way left-turn lane (present/not present)			Not Present				
Roadside hazard rating (1-7 scale)	3	5						
Segment lighting (present/not present)	Not Present	Not Present						
	speed enforcement (present/not present)			Not Present				
Calibration Factor, Cr		198	Not Present					

red to	13	Work	sheet 1B Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Way Roadwa	y Segments			-
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10-19		10-21	10.7.1	x(11)x(12
1.03	1.08	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.243

	Works	heet 1C – Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs Overdispersion Paramete k		Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B	3	(5)x(6)x(7)
Total	0.021	1.00	1.000	0.021	1.24	1.00	0.026
Fatal and Injury (FI)	-		0.321	0,007	1.24	1.00	0.008
Property Damage Only (PDO)	-	-	0.679	0.014	1.24	1.00	0.018

(1)	(2)	(3)	(4)	(5)	(8)	(7)
Collision Type	Proportion of Collision Type(готац)	N produced is [TOTAL] (crashes/year)	Proportion of Collision Type _(Fi)	N producers (FQ (crashes/year)	Proportion of Collision Type _(PDO)	N productor (PDD) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)Poo from Worksheef 1C
Total	1,000	0.026	1.000	0.008	1.000	0.018
		(2)x(3)total		(4)x(5)n		(6)x(7)poo
Pol II			SINGLE-VEHICLE		-	
Collision with animal	0.121	0.003	0.038	0.000	0.184	0.003
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0.521	0.014	0.545	0.005	0.505	0.009
Other single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0.001
Total single-vehicle crashes	0.693	0.018	0.638	0.005	0.735	0.013
10 0.	11111111		MULTIPLE-VEHICLE	60.00		111
Angle collision	0,085	0.002	0.100	0.001	0.072	0.001
lead-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	D.142	0.004	0.164	0.001	0.122	0.002
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0.027	0.001	0.026	0.000	0.030	0.001
Total multiple-vehicle crashes	0.307	0.008	0.382	0.003	0.265	0.005

11 W 1 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Worksheet 1E - Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)
Total	1.000	0.0	0.237	0.1
Fatal and Injury (FI)	0.321	0.0	0.237	0.0
Property Damage Only (PDO)	0.679	0.0	0.237	0.1

Paraiso Springs Road - Segment E 2006-2010

	General Information	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1117 000	Lo	ocation Infor	nation	//		
Analyst Agency or Company		DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Sprin Segmen			
Date Performed		07/29/11	Jurisdiction			Monterey Co	unty. CA		
Analysis Condition	2008-2	010	Analysis Year	E 107 - 61		2006	to the second property of the Control		
	Input Data		Base Conditions		Site Conditions		-	-	
Length of segment, L (mi)				STATE OF THE STATE	W	0.237	- Communication		
AADT (veh/day)	A/	DT _{MAX} = 17,800 (veh/day)	-	Total Control	100000000000000000000000000000000000000	20		-	AADT OK
Lane width (ft)			12	at the second of			CONTRACT OF		
Shoulder width (ft)			6	Right Shid:	0	The second	Left Shid:	0	-
Shoulder type			Paved	Right Shid:	Gravel	101111111111111111111111111111111111111	Left Shid:	Gravel	
Length of horizontal curve (mi)			0	Believe 19	0.00				
Radius of curvature (ft)			0	Manutaning	DAY	0	the second	100/69	Radius Value (
Spiral transition curve (present/not pr	resent)		Not Present		1 (0)	Not Present	Alle Wester	1112	
Superelevation variance (ft/ft)			< 0.01	C. Carlotte		0	dipart sold		
Grade (%)			0		20 10	0			
Driveway density (driveways/mile)			5	E11735 (1987)		0		Media III	
Centerline rumble strips (present/not		Section - and	Not Present			Not Present			
Passing lanes [present (1 lane) /pres		ent)]	Not Present	Charles and the		Not Present			
Two-way left-turn lane (present/not p	resent)		Not Present	Design Services		Not Present			
Roadside hazard rating (1-7 scale)			3 Not Present	5					
	gment lighting (present/not present)			Not Present					
Auto speed enforcement (present/no	t present)		Not Present	Not Present					
Calibration Factor, Cr				1.00			320325		

	11 10	Work	sheet 1B Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Nay Roadwa	y Segments	11		
(1)	(2)	(3)	(4)	(5)	(6)	. (7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combined
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF Br	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section - 10.7.1	Section 10.7.1	Equation 10 18 & 10-19	10-20	10-21	10.7,1	x(11)x(12)
1.03	1.08	1.00	1.00	1.00	1.00	1,00	1,00	1.00	1.14	1.00	1,00	1.243

	Works	heet 1C Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		100
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs Overdispersion Parame k		Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(8)x(7)
Total	0.001	1.00	1,000	0.001	1.24	1.00	0.002
Fatal and Injury (FI)		-	0.321	0.000	1.24	1.00	0.001
Property Damage Only (PDO)	-	55 C=C 1.	0.679	0.001	1.24	1.00	0,001

(1)	(2)	(3)	(4)	(5)	(6)	(7)			
Collision Type	Proportion of Collision Type(101AL)	N produced in (TOTAL) (crashes/year)							N productos (PDD) (crashes/year)
	1 1 1 2 2	1	Ha SIII	11(2) 2(4) 22		1 = -			
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)PDO from Worksheet 1C			
Total	1.000	0.002	1.000	0.001	1.000	0.001			
	1,77	(2)x(3)total	£77	(4)x(5)n		(6)x(7)PDO			
		11	SINGLE-VEHICLE	1111					
Collision with animal	0.121	0.000	0.038	0.000	0.184	0.000			
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000			
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000			
Overturned	0.025	0.000	0.037	0.000	0.015	0.000			
Ran off road	0.521	0.001	0.545	0.000	0.505	0.001			
Other single-vehicle collision	0.021	0.000	0.007	0.000	0.029	0,000			
Total single-vehicle crashes	0.693	0.001	0.638	0.000	0.735	0.001			
		1 1000	MULTIPLE-VEHICLE			on in			
Angle collision	0.085	0.000	0.100	0.000	0.072	0.000			
lead-on collision	0.016	0.000	0.034	0,000	0.003	0.000			
Rear-end collision	0.142	0.000	0.164	0.000	0.122	0.000			
Sideswipe collision	0.037	0.000	0.038	0.000	0.038	0.000			
Other multiple-vehicle collision	0.027	0.000	0,026	0.000	0.030	0.000			
Total multiple-vehicle crashes	0.307	0,000	0.362	0.000	0.265	0.000			

N 8 19 1	Worksheet 1E - Summary Results for Rural 1	lwo-Lane Two-Way Roadway S	egments	200
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C		(3)/(4)
Total	1.000	0.0	0.237	0.0
Fatal and Injury (FI)	0.321	0.0	0.237	0.0
Property Damage Only (PDO)	0,679	0.0	0.237	0.0

Paraiso Springs Road - Segment E Phase 4 - Buildout

G	eneral Information		Lo	cation Inform	nation			
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Section	180 280 200		Paralso Spri Segmi	ent E		
Date Performed	07/29/11	Jurisdiction			Monterey C	ounty, CA		
Analysis Condition	Phase 4 - Buildout	Analysis Year						1/4
	Input Data	Base Conditions		S	ite Condition	5		
Length of segment, L (mi)		_		1 1 1 1 1 1	0.237	THE PERSON		
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)		The state of the s	TO SERVICE OF THE SER	352		SALES OF THE SALES	AADT OK
Lane width (ft)		12	27 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		9		100	
Shoulder width (ft)		6	Right Shid:	0		Left Shid:	0	
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)		0	0.00					
Radius of curvature (ft)		0			0			Radius Value C
Spiral transition curve (present/not pres	ent)	Not Present	BURNING THE		Not Present			11000
Superelevation variance (ft/ft)		< 0.01			0	A CONTRACTOR	de la companya de la	
Grade (%)		0	9 481///9 3	100	0		370000	
Driveway density (driveways/mile)		5	Sandy Services	100	0			No.
Centerline rumble strips (present/not pr	esent)	Not Present	Barrier College		Not Present			
Passing lanes [present (1 fane) /present	t (2 lane) / not present)]	Not Present			Not Present	AT BUTTON		10
Two-way left-turn lane (present/not pre-	sent)	Not Present			Not Present			
Roadside hazard rating (1-7 scale)		3			5			
Segment lighting (present/not present)		Not Present	Not Present				1	
Auto speed enforcement (present/not p	resent)	Not Present	NO MARKET		Not Present			
Calibration Factor, Cr		1 1	DESTINATION.		1.00			

		Work	sheet 1B Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Nay Roadwa	y Segments	- 1.00	1/21 11	
(1)	- (2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane	CMF for	CMF for	CMF for Super-	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	Combined
Width	Shoulder Width	Horizontal	elevation	Grades	Driveway	Centerline	Passing	Two-Way	Roadside	Lighting	Automated	CMF
	and Type	Curves			Density	Rumble	Lanes	Left-Turn	Design		Speed	***
						Strips		Lane	7.5	11	Enforcement	
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF comb
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15,	10-11	10-17	Section	Section	Equation 10	10-20	10-21	10.7.1	x(11)x(12)
			or 10-16			10.7.1	10.7.1	18 & 10-19			A 10.00	
1.03	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1,00	1.14	1.00	1.00	1.243

	Works	heet 1C - Roadway Segment	t Crashes for Rural Two	-Lane Two-Way Roadwi	ay Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency, N
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.022	1.00	1.000	0.022	1.24	1.00	0.028
Fatal and Injury (FI)	1-1	1140	0.321	0.007	1.24	1,00	0.009
Property Damage Only (PDO)	-		0.679	0.015	1.24	1.00	0.019

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(101AL)	N proteod or (TOTAL) (crashes/year)	Proportion of Collision Type _(Ft)	N predictor (#0) (crashes/year)	Proportion of Collision Type _(PCO)	N protend in (POO) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)900 from Worksheet 1C
Total	1.000	0.028	1.000	0.009	1,000	0,019
11		(2)x(3)total		(4)x(5)n	V	(6)x(7)PDO
			SINGLE-VEHICLE			
Collision with animal	0.121	0.003	0,038	0.000	0.184	0.003
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0,003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0.521	0.014	0.545	0.005	0.505	0.010
Other single-vehicle collision	0,021	0.001	0.007	0.000	0,029	0.001
otal single-vehicle crashes	0.693	0.019	0.638	0.006	0.735	0.014
7/	0.1		MULTIPLE-VEHICLE	T minute		
Angle collision	0.085	0.002	0.100	0.001	0.072	0.001
lead-on collision	0.016	0.000	0.034	0.000	0.003	0.000
tear-end collision	0.142	0.004	0.184	0.001	0.122	0.002
ideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other muttiple-vehicle collision	0.027	0.001	0.026	0.000	0.030	0.001
otal multiple-vehicle crashes	0.307	0.009	0.362	0.003	0.265	0.005

The second second second	Worksheet 1E — Summary Results for Rural 1	iwo-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (ml)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	7 1	(3)/(4)
Total	1.000	0.0	0.237	0,1
Fatal and Injury (FI)	0,321	0.0	0.237	0.0
Property Damage Only (PDO)	0.679	0.0	0.237	0.1

Paraiso Springs Road - Segment E Base Prediction (1991-2010)

	General Information	100000000000000000000000000000000000000	Lo	cation Inform	ation		9.19	771
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Sprii Segme	nt E		100
Date Performed	07/29/11	Jurisdiction			Monterey Co	ounty, CA		
Analysis Condition	Hist. Base Calc. (1991-2010 Avg ADT)	Analysis Year						
	Input Data	Base Conditions	12.5	Sit	e Conditions			
Length of segment, L (mi)	a residence of the state	_	Sell Sell		0.237		غزوا د الزهره	37.
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)	8 - I		THE RESIDENCE TO SERVICE TO SERVI	255	HER RESIDENCE		AADT OK
Lane width (ft)		12		THE RESERVE	9	Mark Sallin		
Shoulder width (ft)	Control of the second of the s	6	Right Shid:	0	A Commission of	Left Shid:	0	
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)		0	0.00			MILE STATE		
Radius of curvature (ft)		0	The Springer of the		0	West of the later	arteria in S	Radius Value (
Spiral transition curve (present/not pre	esent)	Not Present	STEWNSON OF		Not Present			
Superelevation variance (ft/ft)		< 0.01			0	The state of the s		
Grade (%)		0	WASHINGTON TO		0			
Driveway density (driveways/mile)	71	5			0			
Centerline rumble strips (present/not		Not Present		Control of the last	Not Present			
Passing lanes [present (1 lane) /prese		Not Present		DEMOS I	Not Present	HIRLEY CO.		1
Two-way left-turn lane (present/not pr	resent)	Not Present	E 10 10 80 1	COVIDED IN	Not Present			
Roadside hazard rating (1-7 scale)		3	Secret Const		5			12.0
Segment lighting (present/not presen		Not Present	Control of the		Not Present			
Auto speed enforcement (present/not	present)	Not Present		HISTO YEAR	Not Present	The same of the		1100
Calibration Factor, Cr		1	AND DESCRIPTION OF THE PARTY OF	RECORDED TO	1.00	The second second second	Committee of	

445	461				n Factors for I							¥
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane	CMF for	CMF for	CMF for Super-	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	Combine
Width	Shoulder Width	Horizontal	elevation	Grades	Driveway	Centerline	Passing	Two-Way	Roadside	Lighting	Automated	CMF
	and Type	Curves	200	9	Density	Rumble	Lanes	Left-Turn	Design		Speed	
		1 11 1		983		Strips	10	Lane	=_		Enforcement	
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15,	10-11	10-17	Section	Section	Equation 10		10-21		x(11)x(12
	E - N - E		or 10-18	161	9)	10.7.1	10.7.1	18 & 10-19			1.7030501	
1.03	1,08	1.00	1.00	1,00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.243

518 51 554	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments	11 1.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency, N
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.016	1.00	1.000	0,018	1.24	1.00	0.020
Fatal and Injury (FI)	-	- 11	0.321	0,005	1.24	1.00	0.008
Property Damage Only (PDO)	120	_	0.679	0.011	1.24	1.00	0.014

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(10TAL)	N products (TUTAL) (crashes/year)	Proportion of Collision Type _{(P3}	N predictor (FI) (crashes/year)	Proportion of Collision Type _(PDO)	N proteors (PDD) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)= from Worksheet 1C	from Table 10-4	(8) _{PDO} from Worksheet 1C
Total	1.000	0.020	1,000	0.006	1.000	0.014
		(2)x(3)total	114 11	(4)x(5)n		(6)x(7)ppo
-			SINGLE-VEHICLE	WW		0.012100.00
Collision with animal	0.121	0.002	0.038	0.000	0,184	0.003
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0.521	0.010	0.545	0.004	0.505	0.007
Other single-vehicle collision	0.021	0.000	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0.693	0.014	0.638	0.004	0.735	0.010
10.0	0.00	4	MULTIPLE-VEHICLE	2000		
Angle collision	0.085	0.002	0.100	0.001	0.072	0.001
lead-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0.003	0.164	0.001	0.122	0.002
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0.027	0.001	0.028	0.000	0.030	0.000
Total multiple-vehicle crashes	0.307	0.008	0.382	0.002	0.265	0.004

7710 1,7177 17	Worksheet 1E - Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
THE	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)
Total	1,000	0.0	0.237	0.1
Fatal and Injury (FI)	0,321	0.0	0.237	0.0
Property Damage Only (PDO)	0.679	0.0	0.237	0.1

ATTACHMENT H PREDICTED AVERAGE CRASH FREQUENCY CALCULATION WORKSHEETS

Paraiso Springs Road Segment F

Paraiso Springs Road - Segment F 1991-2005

Ge	neral Information	100	Lo	cation Informa	tion		
Analyst Agency or Company Date Performed	DT Hatch Mott MacDonald 07/29/11	Roadway Roadway Section Jurisdiction			Paraiso Springs Rd - Segment F Monterey County, CA		
Analysis Condition	1991-2005	Analysis Year	114 245		1991		
	Input Data	Base Conditions	Site Conditions				
Length of segment, L (mi)			0.0275				
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)	58	White Street and		388	- 1	AADT OK
Lane width (ft)	ne width (ft)		Committee of the Commit		990		
oulder width (ff)		8	Right Shid:	0	Left	Shid:	0
Shoulder type			Right Shid:	Gravel	Left	Shid: Gr	avel
Length of horizontal curve (mi)		0			0.03		NOTIFIED A
Radius of curvature (ft)		0	100			Radius Va	
Spiral transition curve (present/not prese	nt)	Not Present	Not Present				
Superelevation variance (ft/ft)		< 0.01	Company of the last	organistic statement of the	0	Market St.	-
Grade (%)	#1 OC	0	Additional Control	Colonia Carlon	0	Market St.	
Driveway density (driveways/mile)		5	ELECTRICAL STATE OF THE PARTY O		5	TOTAL DE	776
Centerline rumble strips (present/not pre	sent)	Not Present	Salis Days	N	lot Present		
Passing lanes [present (1 lane) /present	(2 lane) / not present)]	Not Present		N	lot Present		
Two-way left-turn lane (present/not pres	ent)	Not Present		N	lot Present		
Roadside hazard rating (1-7 scale)		3			6		
Segment lighting (present/not present)		Not Present		N	lot Present		OUG .
Auto speed enforcement (present/not pr	esent)	Not Present	8	N	lot Present		
Calibration Factor, Cr		1	Section of the last of the las	the second	1.00	1	

		Work:	sheet 1B Cras	h Modificatio	n Factors for F	tural Two-L	ane Two-l	Way Roadwa	y Segments		154116	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF Br	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10- 18 & 10-19		10-21	10.7.1	x(11)x(12
1,03	1,06	19,84	1,00	1,00	1,00	1.00	1.00	1.00	1.22	1.00	1.00	26.371

	Works	heet 1C – Roadway Segment (Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments	X10 .1	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
Name of the last o	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(8)x(7)
Total	0.003	8.58	1.000	0.003	26,37	- 1.00	0.071
Fatal and Injury (FI)	-	110 72	0.321	0.001	26,37	1.00	0.023
Property Damage Only (PDO)	-	_	0.679	0.002	26,37	1.00	0.048

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Collision Type Proportion of Collision Type(roral) from Table 10-4 1.000 with animal 0.121 with bicycle 0.002	N produced (TOTAL) (crashes/year)	Proportion of Collision Type _(Fe)	N produted re (PI) (crashes/year)	Proportion of Collision Type _(P00)	N produced to (PDO) (crashes/year)
				10 140		
		(8) TOTAL from Worksheet 1C	from Table 10-4	(8)⊨ from Worksheet 1C	from Table 10-4	(8)PDO from Worksheel
Total	1,000	0.071	1,000	0.023	1.000	0.048
	10 10 1	(2)x(3)total		(4)x(5)n		(6)x(7)ppq
			SINGLE-VEHICLE	18 1.8 1.111		
Collision with animal	0.121	0.009	0.038	0,001	0.184	0.009
Collision with bicycle	0.002	0.000	0.004	0,000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.002	0.037	0.001	0.015	0.001
Ran off road	0.521	0.037	0,545	0.012	0.505	0.024
Other single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0.001
Total single-vehicle crashes	0.693	0.049	0.638	0.015	0.735	0.035
	983091	100.00	MULTIPLE-VEHICLE	01/01		1111
Angle collision	0.085	0.008	0.100	0.002	0.072	0.003
Head-on collision	0,016	0.001	0.034	0.001	0.003	0.000
Rear-end collision	0.142	0.010	0.184	0.004	0.122	0.006
Sideswipe collision	0.037	0.003	0.038	0,001	0.038	0.002
Other multiple-vehicle collision	0.027	0.002	0.026	0.001	0.030	0.001
Total multiple-vehicle crashes	0.307	0.022	0.382	0.008	0.265	0.013

	Worksheet 1E - Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments	
al al and injury (FI)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	1 1	(3)/(4)
Total	1.000	0,1	0.0275	2.6
atal and Injury (FI)	0.321	0.0	0.0275	0.8
Property Damage Only (PDO)	0.679	0.0	0.0275	1.8

Paraiso Springs Road - Segment F 2006-2010

	General Information		Lo	cation inform	nation	18847	Tier in or
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paraiso Springs Rd -F Segment F	10/10/	
Date Performed	07/29/11	Jurisdiction			Monterey County, CA		
Analysis Condition	2008-2010	Analysis Year 2006		2006			
313333	Input Data	Base Conditions	Site Conditions			-	
Length of segment, L (mi)		1 - 1 -	0.0275			1	
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)		53			The state of the state of	AADT OK
Lane width (ft)	ne width (ft)		1000	2149.00	9	10000	
Shoulder width (ft)			Right Shid:	0	Left Shid	0	20
Shoulder type			Right Shid:	Gravel	Left Shid	Gravel	
Length of horizontal curve (ml)		0	ACCOUNT OF THE	100	0.03	SALDERY.	
Radius of curvature (ft)		0	100			14 2 16	Radius Value C
Spiral transition curve (present/not pre	sent)	Not Present	LANGE BE		Not Present		
Superelevation variance (ft/ft)		< 0.01	A STATE OF THE STA		0		
Grade (%)		0	Witness and	garage and the second	0		
Driveway density (driveways/mile)		5	140,500	Manyster (V	0		
Centerline rumble strips (present/not		Not Present			Not Present		
Passing lanes (present (1 lane) /prese		Not Present			Not Present		E
Two-way left-turn lane (present/not pr	esent)	Not Present	MENERAL PROPERTY.		Not Present		
Roadside hazard rating (1-7 scale)		3	E STORY		6		
Segment lighting (present/not present		Not Present			Not Present		
Auto speed enforcement (present/not	present)	Not Present			Not Present		
Calibration Factor, Cr		1	St. 1985	The State of	1.00		

	20 0	Work	sheet 1B Cras	h Modificatio	n Factors for i	Rural Two-L	ane Two-l	Way Roadwa	y Segments		_ ===	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF comi
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10 18 & 10-19		10-21		x(11)x(12)
1.03	1,06	19,84	1.00	1.00	1.00	1,00	1.00	1.00	1.22	1.00	1,00	26.371

	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	(5) (6) (7) (7) by Severity Combined Calibration Prediction CMFs Factor, Cr crash from Worksheet 1B (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7		
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter,	Crash Severity	N spf rs by Severity	Combined	Calibration	Predicted average
		k	Distribution	Distribution	CMFs	Factor, Cr	crash frequency, N
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)		14	(5)x(6)x(7)
Total	from Equation from Equation 10-7 from Table 10-3 (proportion)	0.000	26.37	1.00	0.010		
Fatal and Injury (FI)	-	-	0.321	0,000	26.37	1.00	0.003
Property Damage Only (PDO)	-	1 1 4 /	0.679	0.000	26.37	1.00	0.007

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(101AL)	N produced re (TOTAL) (crashes/year)	Proportion of Collision Typerre	N productor (FI) (crashes/year)	Proportion of Collision Type _(P00)	N predendre (PDD) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)a from Worksheet 1C	from Table 10-4	(8)PDD from Worksheet 1C
Total	1.000	0.010	1.000	0.003	1,000	0.007
	0 0 0 0 0	(2)x(3)total		(4)x(5)n		(6)x(7)PDO
			SINGLE-VEHICLE			
Collision with animal	0.121	0.001	0.038	0.000	0.184	0.001
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0,003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.000	0.037	0.000	0.015	0.000
Ran off road	0.521	0.005	0.545	0.002	0.505	0.004
Other single-vehicle collision	0.021	0.000	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0.693	0.007	0.638	0.002	0.735	0.005
Fat 27	111111111111111111111111111111111111111	10 5 500	MULTIPLE-VEHICLE	7007	Table 1	
Angle collision	0.085	0,001	0.100	0,000	0.072	0.001
Head-on collision	0.016	0,000	0.034	0,000	0.003	0.000
Rear-end collision	0.142	0.001	0.164	0,001	0.122	0.001
Sideswipe collision	0.037	0.000	0.038	0.000	0.038	0.000
Other multiple-vehicle collision	0.027	0.000	0.026	0.000	0.030	0.000
Total multiple-vehicle crashes	0.307	0.003	0.382	0.001	0.265	0.002

	Worksheet 1E - Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	1 1	(3)/(4)
Total	1.000	0.0	0.0275	0.4
Fatal and Injury (FI)	0,321	0.0	0.0275	0.1
Property Damage Only (PDO)	0.679	0.0	0.0275	0.3

Paraiso Springs Road - Segment F Phase 4 - Buildout

	General Information		Lo	cation Infor	nation			
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Paralso Spri Segmi		127	
Date Performed	07/29/11	Jurisdiction			Monterey C	ounty, CA		
Analysis Condition	Phase 4 - Bulldout	Analysis Year						
	Input Data	Base Conditions	Site Conditions				-	
Length of segment, L (mi)		-	0.0275			CALL STATE		
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)		385			350	AADT OK	
Lane width (ft)	ne width (ft)				9	THE PARTY NAMED IN	1000	
oulder width (ff)		6	Right Shid:	0	10.4	Left Shid:	0	
Shoulder type			Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)		0	0.03			and the last	(2) (2)	
Radius of curvature (ft)		0	100				Radius Value C	
Spiral transition curve (present/not pre	sent)	Not Present	BAUK BES		Not Present			710
Superelevation variance (fl/ft)		< 0.01	the same the contract of the c				acida Paris	
Grade (%)		0			- 0		4	
Driveway density (driveways/mile)		5	T 10 12 9 31		0	Sec. (200)	- 600	
Centerline rumble strips (present/not	present)	Not Present			Not Present			
Passing lanes [present (1 lane) /prese	nt (2 lane) / not present)]	Not Present	State of the last		Not Present			
Two-way left-turn lane (present/not pr	esent)	Not Present			Not Present			
Roadside hazard rating (1-7 scale)		3			6			100
Segment lighting (present/not present		Not Present			Not Present			
Auto speed enforcement (present/not	present)	Not Present			Not Present			
Calibration Factor, Cr		1	CONTRACTOR OF THE PARTY OF THE	300000000000000000000000000000000000000	1.00	T. House Street	STREET	

0.000		Work	sheet 1B – Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-l	Way Roadwa	y Segments			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane	CMF for	CMF for	CMF for Super-	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	CMF for	Combine
Width	Shoulder Width	Horizontal	elevation	Grades	Driveway	Centerline	Passing	Two-Way	Roadside	Lighting	Automated	CMF
	and Type	Curves			Density	Rumble	Lanes	Left-Turn	Design	- 1	Speed	ł
		1 60 11	:			Strips		Lane			Enforcement	1
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15,	10-11	10-17	Section	Section	Equation 10	10-20	10-21	10.7.1	x(11)x(12)
			or 10-18			10.7.1	10.7.1	18 & 10-19			8990	
1.03	1.06	19.84	1.00	1.00	1.00	1.00	1.00	1.00	1.22	1.00	1.00	26.371

	Works	sheet 1C Roadway Segmen	t Crashes for Rural Two-	Lane Two-Way Roadwa	sy Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency, N
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(6)x(7)
Total	0.003	8.58	1.000	0.003	26.37	1.00	0.075
Fatal and Injury (FI)	-	-	0.321	0.001	26.37	1,00	0,024
Property Damage Only (PDO)	-	\ -	0.679	0.002	26.37	1.00	0.051

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(107AL)	N productors (TOTAL) (crashes/year)	Proportion of Collision Type _(Fi)	N producers (FI) (crashes/year)	Proportion of Collision Type(PDO)	N producers (P00) (crashes/year)
	from Table 10-4	(8)TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8)Poo from Workshee
Total	1.000	0.075	1.000	0.024	1.000	0.051
10	100	(2)x(3)total	50 to 50	(4)x(5) _{FI}	700	(6)x(7)ppo
			SINGLE-VEHICLE			
Collision with animal	0.121	0.009	0.038	0.001	0.184	0.009
Collision with bicycle	0.002	0.000	0,004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0,007	0.000	0.001	0.000
Overturned	0.025	0.002	0.037	0.001	0.015	0,001
Ran off road	0.521	0.039	0.545	0.013	0.505	0.028
Other single-vehicle collision	0.021	0.002	0.007	0.000	0.029	0.001
Total single-vehicle crashes	0.893	0.052	0,638	0.015	0.735	0.037
	-		MULTIPLE-VEHICLE			
Angle collision	0.085	0.008	0.100	0.002	0.072	0.004
lead-on collision	0.018	0.001	0.034	0.001	0.003	0.000
Rear-end collision	0.142	0.011	0.184	0.004	0.122	0.006
Sideswipe collision	0.037	0.003	0,038	0.001	0.038	0.002
Other multiple-vehicle collision	0.027	0.002	0.028	0.001	0.030	0,002
Total multiple-vehicle crashes	0.307	0.023	0.382	0.009	0.265	0.013

	Worksheet 1E - Summary Results for Rural	Two-Lane Two-Way Roadway S	gments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)
Total	1.000	0.1	0.0275	2.7
Fatal and Injury (FI)	0,321	0.0	0.0275	0.9
Property Damage Only (PDO)	0.679	0.1	0.0275	1.8

Paraiso Springs Road - Segment F Base Prediction (1991-2010)

Ge	neral Information		Lo	cation Inform	ation			
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section						
Date Performed	07/29/11	Jurisdiction			Monterey Co.	inty, CA		
Analysis Condition	Hist. Base Calc. (1991-2010 Avg ADT)	Analysis Year			- Company			
	Input Data			Sit	te Conditions			
Length of segment, L (mi)		_			0.0275		23,435	1 Sec.
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)	M			287		1.111111	AADT OK
Lane width (ft)	ne width (ft)			BACKET IN THE PERSON OF THE PE			1000	
Shoulder width (ft)	5- 1-11	8	Right Shid:	0	rentel participation	Left Shid:	0	3-4-11
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravel	9
Length of horizontal curve (ml)	1111 A 21 1 A 21 1 A 21 1 A	0	0.03					
Radius of curvature (ft)		0	(Carlotte Charles)	STATE OF THE PARTY	100	avious constitution to		Radius Value Ol
Spiral transition curve (present/not prese	ent)	Not Present			Not Present			
Superelevation variance (ft/ft)		< 0.01	A CHARLES OF WALL		0	AND STREET, ST	25 75 7	
Grade (%)		0	THE PARTY OF THE P	And Ann	0	man/less/	1,000,000	
Driveway density (driveways/mile)		5			0	NAME OF THE OWNER, OF THE OWNER, OF THE OWNER, OF THE OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER,		
Centerline rumble strips (present/not pro		Not Present	(1957) 单位设置		Not Present			
Passing lanes [present (1 lane) /present		Not Present			Not Present			
Two-way left-turn lane (present/not pres	ent)	Not Present	nt Not Present					
Roadside hazard rating (1-7 scale)	1 211	3						
Segment lighting (present/not present)		Not Present			Not Present			
Auto speed enforcement (present/not present/not presen	esent)	Not Present	REAL SEA		Not Present	The Lot of Lines.	Mall Line	
Calibration Factor, Cr		1	A THE STREET		1.00			

		Work	sheet 1B Cras	h Modificatio	n Factors for I	Rurai Two-L	ane Two-l	Way Roadwa	y Segments		40.000	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10,7,1	Section 10,7,1	Equation 10-19	10-20	10-21	10,7,1	x(11)x(12
1,03	1,06	19,84	1.00	1.00	1.00	1.00	1.00	1.00	1.22	1.00	1.00	26.371

	Works	heet 1C – Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments	188 15	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf is by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 18		(5)x(6)x(7)
Total	0.002	8.58	1,000	0.002	26.37	1.00	0.058
Fatal and Injury (FI)	-		0,321	0.001	26.37	1.00	0,018
Property Damage Only (PDO)	_		0,679	0.001	26,37	1.00	0.038

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(107AL)	N produced is (TOTAL) (crashes/year)	Proportion of Collision Type _(P)	N predictor (m) (crashes/year)	Proportion of Collision Type _(PO)	N predictor (1900) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8) _{PDO} from Worksheel 1C
Total	1,000	0.058	1.000	0.018	1.000	0.038
	F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(2)x(3)total	N 20 20 10 10	(4)x(5)n	•	(B)x(7)poo
	ette IIIettos		SINGLE-VEHICLE	249 678 0497		
Collision with animal	0.121	0.007	0.038	0.001	0.184	0.007
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0,001	0.015	0.001
Ran off road	0.521	0.029	0.545	0.010	0,505	0.019
Other single-vehicle collision	0.021	0.001	0.007	0.000	0,029	0,001
Total single-vehicle crashes	0.693	0.039	0.638	0,011	0.735	0.028
100	16740	C 100	MULTIPLE-VEHICLE			11/1
Angle collision	0.085	0,005	0.100	0.002	0.072	0,003
lead-on collision	0.016	0.001	0.034	0.001	0.003	0.000
tear-end collision	0.142	0.008	-0.164	0.003	0.122	0.005
ideswipe collision	0.037	0.002	0.038	0.001	0.038	0.001
Other multiple-vehicle collision	0.027	0.002	0.026	0.000	0.030	0.001
Total multiple-vehicle crashes	0.307	0.017	0.382	0.006	0.265	0.010

45 4 5 444 F 4 5	Worksheet 1E – Summary Results for Rural	Two-Lane Two-Way Roadway S	egments	11.00
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	7	(3)/(4)
Total	1.000	0.1	0.0275	2,0
Fatal and Injury (FI)	0.321	0.0	0.0275	0,6
Property Damage Only (PDO)	0,679	0.0	0.0275	1.4

ATTACHMENT I PREDICTED AVERAGE CRASH FREQUENCY CALCULATION WORKSHEETS

Clark Road

Clark Road 1991-2005

Ge	neral Information		Lo	cation Inform	nation	Value Inflation	-	
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section	Clark Road MP 0.0 to MP 1.352					
Date Performed	07/29/11	Jurisdiction			Monterey Co	ounty, CA		
Analysis Condition	1991-2005	Analysis Year	2 100 1100		199	1		
AVALUE TO THE RESERVE	input Data	Base Conditions	ISSUE DING	3	ite Condition:		0.000	
Length of segment, L (mi)				0 10	1.352	THE CONTRACT	'apparate	
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)	-		1 2 2 2 1 4 2	83	de piede intern	District Co.	AADT OK
Lane width (ft)		12	9230		9	and the second	-	
Shoulder width (ft)		6	Right Shid:	0	10000	Left Shid:	0	1
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)		0		THE RESERVE TO SERVE	0.0			
Radius of curvature (ft)		0	E-1 2 20 11 1	me Comment	0			Radius Value O
Spiral transition curve (present/not prese	nt)	Not Present			Not Present			
Superelevation variance (ft/ft)		< 0,01	Machine Land		0	The second second		
Grade (%)	88 188	0	All the second second	AND THE REAL PROPERTY.	2		to the least of the	
Driveway density (driveways/mile)		5			5		THE PARTY OF	
Centerline rumble strips (present/not pre		Not Present	PARTY SERVICE		Not Present			
Passing lanes [present (1 lane) /present		Not Present	BUILDING ALL		Not Present			12.2
Two-way left-turn lane (present/not pres	ent)	Not Present	Not Present					
Roadside hazard rating (1-7 scale)		3	2					
Segment lighting (present/not present)		Not Present			Not Present			100
Auto speed enforcement (present/not pr	esent)	Not Present			Not Present			
Calibration Factor, Cr		1	Land March	THE RESERVE	1.00	Carlotte Carlotte	Marca Inc.	

14411		Work	sheet 1B - Cras	h Modificatio	n Factors for F	Rural Two-L	ane Two-	Way Roadwa	y Segments		VIATE CO.	
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combined
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12s	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10 18 & 10-19		10-21	10.7.1	x(11)x(12)
1.03	1.08	1.00	1.00	1,00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	1.017

1267 I. 627 I.	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 18		(5)x(6)x(7)
Total	0.030	0.17	1.000	0,030	1.02	1.00	0.031
Fatal and Injury (FI)	1 - 1	0.11 - 0.11 0.44	0.321	0,010	1.02	1.00	0.010
Property Damage Only (PDO)	-		0.879	0,020	1.02	1.00	0.021

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Typerroral	N proteint (TOTAL) (crashes/year)	Proportion of Collision Type _{(FQ}	N predicted re (P) (crashes/year)	Proportion of Collision Type _(PO0)	N produced is (PDD) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)= from Worksheet 1C	from Table 10-4	(8)PDD from Worksheet 1C
Total	1.000	0.031	1,000	0.010	1.000	0.021
pr - 80	- 19 -	(2)x(3)total		(4)x(5)n		(6)x(7)ppo
			SINGLE-VEHICLE			
Collision with animal	0.121	0.004	0.038	0.000	D.184	0.004
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0,000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0.521	0.018	0.545	0.005	0.505	0.010
Other single-vehicle collision	0.021	0.001	0.007	0.000	0.029	0.001
Total single-vehicle crashes	0.693	0.021	0.638	0.006	0.735	0.015
- E	-		MULTIPLE-VEHICLE	E 200/11 E		1561
Angle collision	0.085	0.003	0.100	0.001	0.072	0.001
Head-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0.004	0.184	0.002	0.122	0.003
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0.027	0.001	0.026	0.000	0.030	0.001
Total multiple-vehicle crashes	0.307	0.009	0.362	0.004	0.265	0.005

	Worksheet 1E - Summary Results for Rural 1	wo-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C		(3)/(4)
Total	1.000	0.0	1.352	0.0
Fatal and Injury (FI)	0,321	- 0.0	1.352	0.0
Property Damage Only (PDO)	0.679	0.0	1,352	0.0

Clark Road 2006-2010

Ge	neral Information		E FOR KOTT A	Lo	cation infor	mation		1777	-
Analyst Agency or Company	DT Hatch Mott MacDon	ald	Roadway Roadway Section			Clark F MP 0.0 to N			167
Date Performed	07/29/11		Jurisdiction	Monterey County, CA				E 52115	
Analysis Condition	2008-2010		Analysis Year			200	SHEET, AND ASSESSED.		- E
10.2	Input Data		Base Conditions	Site Conditions			-		
Length of segment, L (mi)			_	1.352			10000	7.7	
AADT (veh/day)	AADT _{MAX} = 17,800	(veh/day)	-		Tillion day	20	To Various hashes	THE SECTION	AADT OK
Lane width (ft)			12	The State of the S	DESCRIPTION OF	9		CHARLES TO SERVICE	7
Shoulder width (ft)			8	Right Shid:	0		Left Shid:	0	•
Shoulder type	121 111		Paved	Right Shid:	Gravel		Left Shid:	Gravel	1
Length of horizontal curve (mi)			0	Commence of the commence of th					
Radius of curvature (ft)			0		and the state of	0			Radius Value O
Spiral transition curve (present/not prese	nt)		Not Present	THE RESERVE		Not Present	I BEELS	100	
Superelevation variance (ft/ft)			< 0.01	A CONTRACTOR OF THE PARTY OF		0		12/18/2011	
Grade (%)			0	The Property of the St.		2			
Driveway density (driveways/mile)			5	March 10	ALIEN SERVICE	5	THE STATE OF THE STATE OF		
Centerline rumble strips (present/not pre		1000	Not Present	A STATE OF THE REAL PROPERTY.		Not Present			
Passing lanes [present (1 lane) /present			Not Present			Not Present			
Two-way left-turn lane (present/not prese	ent)	7	Not Present			Not Present			
Roadside hazard rating (1-7 scale)	the state of the s		3			2	150205-7		
Segment lighting (present/not present)			Not Present		The state of	Not Present			
Auto speed enforcement (present/not pre	esent)		Not Present	A STATE OF THE PARTY		Not Present			1177
Calibration Factor, Cr		0.00	2	San San Assessed		1.00	A STATE OF THE OWNER, WHEN		No.

1100 210		Work	sheet 1B - Cras	h Modificatio	n Factors for f	Rural Two-L	ane Two-	Way Roadwa	y Segments		- Nove 1997 - 177	100
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10,7,1	Equation 10 18 & 10-19		10-21		x(11)x(12
1,03	1,08	1.00	1,00	1,00	1.00	1.00	1,00	1.00	0.94	1.00	1.00	1.017

1112 2: 011	Works	heet 1C - Roadway Segment	Crasnes for Rural Two	-Lane Iwo-Way Roadw	ay Segments		
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency, N
	from Equation 10-6	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B	. 4	(5)x(6)x(7)
Total	0.007	0.17	1,000	0.007	1.02	1,00	0.007
Fatal and Injury (FI)	-		0.321	0,002	1.02	1.00	0,002
Property Damage Only (PDO)	-	T 19 19	0,679	0.005	1,02	1.00	0,005

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(тотац)	N produced in (TOTAL) (crashes/year)	Proportion of Collision Type _(P)	N predentes (F) (crashes/year)	Proportion of Collision Type _(PDO)	N products (PDD) (crashes/year)
	from Table	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8) _{Poo} from Worksheet 1C
Total	1,000	0,007	1.000	0.002	1.000	0.005
E. 17	11 11 11 11	(2)x(3) _{TOTAL}	101 - 122	(4)x(5)n		(6)x(7)PDO
No. 1			SINGLE-VEHICLE	11 5-0/6		tur room ri
Collision with animal	0.121	0.001	0.038	0.000	0.184	0.001
Collision with bicycle	0.002	0.000	0,004	0.000	0.001	0.000
Collision with pedestrian	0.003	0,000	0,007	0.000	0.001	0,000
Overturned	0.025	0.000	0.037	0.000	0.015	0.000
Ran off road	0.521	0.004	0.545	0.001	0.505	0.003
Other single-vehicle collision	0.021	0.000	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0,693	0,005	0.638	0.002	0.735	0.004
	11111111	161	MULTIPLE-VEHICLE	12711		
Angle collision	0,085	0.001	0.100	0.000	0.072	0.000
lead-on collision	0.016	0.000	0.034	0.000	0.003	0.000
Rear-end collision	0.142	0,001	0.184	0.000	0.122	0.001
Sideswipe collision	0.037	0.000	0.038	0.000	0.038	0.000
Other multiple-vehicle collision	0.027	0.000	0.026	0.000	0.030	0.000
Total multiple-vehicle crashes	0.307	0.002	0.362	0.001	0.265	0.001

	Worksheet 1E - Summary Results for Rural 1	Two-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
	(4) from Worksheet 1C	(8) from Worksheet 1C	7	(3)/(4)
Total	1,000	0.0	1,352	0.0
Fatal and Injury (FI)	0.321	0.0	1.352	0.0
Property Damage Only (PDO)	0.679	0.0	1,352	0.0

Clark Road Phase 4 - Buildout

	General Information	Defining Street in 1995	Lo	cation Info	mation		1 4 1 1 0	
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Clark MP 0.0 to			
Date Performed	07/29/11	Jurisdiction	ction Monterey County, CA					
Analysis Condition	Phase 4 - Buildout	Analysis Year			191	91		
	Input Data	Base Conditions	1000		Site Condition	5		- 4
Length of segment, L (mi)				0 1 X 6 2 0 1	1,352			
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/c	ay) –	files gitte	100000000000000000000000000000000000000	320	THE PART OF THE PART OF		AADT OK
Lane width (ft)		12	THE REAL PROPERTY.	1000	9	Secretary of the last	1000	
Shoulder width (ft)		6	Right Shid:	0		Left Shid:	0	1
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravei	1
Length of horizontal curve (mi)		0	Sections and		0.0			
Radius of curvature (ft)		0		MATERIAL STATES	0		The State of the S	Radius Value O
Spiral transition curve (present/not pro	esent)	Not Present	SHOW AND LINE		Not Present		Real Dis	
Superelevation variance (ft/ft)		< 0.01	Section 1	Page 15 to 15	0	The second second	missient.	
Grade (%)		0			2	With the Salar		10
Driveway density (driveways/mile)		. 5		V DY SOLD	5	VASSILLA IN LANGE		1
Centerline rumble strips (present/not		Not Present	and the same of		Not Present	the Sell-Street	1000	
Passing lanes [present (1 lane) /prese	ent (2 lane) / not present)]	Not Present	1.02 3.10		Not Present		STATE OF THE PARTY	
Two-way left-turn lane (present/not pr	esent)	Not Present	STREET,		Not Present		11/11/05	
Roadside hazard rating (1-7 scale)		3			2		100	
Segment lighting (present/not present		Not Present			Not Present			
Auto speed enforcement (present/not	present)	Not Present	Control of the		Not Present			
Calibration Factor, Cr		1	A	Section of the second	1.00	Charles St. Jackson	Alexander .	

		Work	sheet 1B - Cras	h Modificatio	n Factors for i	tural Two-L	ane Two-l	Way Roadwa	y Segments		11-7-	79.1
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation	CMF for Grades	CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF 8r	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation	from Equation 10	from Equation	from Equations	from Table	from Equation	from	from	from	from Equation	from Equation	from Section	(1)x(2)x
10-11	12	10-13	10-14, 10-15, or 10-16	10-11	10-17	Section 10.7.1	Section 10.7.1	Equation 10 18 & 10-19	10-20	10-21	10,7,1	x(11)x(12
1.03	1.08	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1,00	1.00	1.017

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(8)x(7)
otal	0.116	0.17	1.000	0.116	1.02	1.00	0.118
atal and injury (Fi)		-	0.321	0.037	1.02	1.00	0.038
Property Damage Only (PDO)	-	_	0.679	0.078	1.02	1.00	0.080

(1)	(2)	(3)	(4)	(5)	(8)	(7)
Collision Type	Proportion of Collision Type(тотац)	N processor (TOTAL) (crashes/year)	Proportion of Collision Type _{(Pq}	N produced in (FI) (crashes/year)	Proportion of Collision Type _(PDO)	N protendes (PDO) (crashes/year)
" Nation "	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)= from Worksheet 1C	from Table 10-4	(8)Poo from Worksheet 1C
Total	1.000	0.118	1.000	0.038	1.000	0.080
	re esti es	(2)x(3)total		(4)x(5)n		(6)x(7)PDO
			SINGLE-VEHICLE			E. E. C. E. E. E.
Collision with animal	0,121	0.014	0.038	0.001	0.184	0.015
Collision with bicycle	0.002	0.000	0.004	0.000	0.001	0.000
Collision with pedestrian	0.003	0,000	0.007	0.000	0.001	0.000
Overturned	0.025	0,003	0.037	0.001	0.015	0.001
Ran off road	0.521	0.061	0.545	0.021	0.505	0.040
Other single-vehicle collision	0.021	0.002	0.007	0.000	0.029	0.002
Total single-vehicle crashes	0.893	0.082	0.638	0.024	0.735	0.059
100	TYTER	(211)	MULTIPLE-VEHICLE	all to the		Table 1
Angle collision	0.085	0.010	0.100	0.004	0.072	0,006
lead-on collision	0.016	0.002	0.034	0,001	0.003	0.000
Rear-end collision	0.142	0.017	0.184	0.006	0.122	0.010
Sideswipe collision	0.037	0,004	0.038	0.001	0.038	0.003
Other multiple-vehicle collision	0.027	0.003	0.028	0.001	0.030	0.002
Total multiple-vehicle crashes	0.307	0.038	0.362	0.014	0.265	0.021

	Worksheet 1E - Summary Results for Rural	Two-Lane Two-Way Roadway S	egments	
(1)	(2)	(3)	(4)	(5)
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)
2.0 - 1.0 -	(4) from Worksheet 1C	(8) from Worksheet 1C	1	(3)/(4)
Total	1.000	0.1	1.352	0.1
Fatal and Injury (FI)	0.321	0.0	1.352	0.0
Property Damage Only (PDO)	0.679	0.1	1.352	0.1

Clark Road Base Prediction (1991-2010)

G	neral Information	TE SECOLOGY	Lo	cation Inform	ation			
Analyst Agency or Company	DT Hatch Mott MacDonald	Roadway Roadway Section			Clark R MP 0.0 to N			
Date Performed	07/29/11	Jurisdiction	1 1 1 1 1		Monterey Co	ounty, CA		19.0
Analysis Condition	Hist, Base Calculation (91-10 Avg ADT)	Analysis Year			199	1		N 7
	Input Data	Base Conditions		Sit	te Conditions	127 Mary 100 110 110 110		•
Length of segment, L (mi)			Service Co. Service Co.		1,352	A STATE OF THE PARTY OF	011	Act of the
AADT (veh/day)	AADT _{MAX} = 17,800 (veh/day)	70	Call Control		67		1000	AADT OK
Lane width (ft)	W4602-W2/0-20	12		A PROPERTY OF	9			
Shoulder width (ft)		6	Right Shid:	0	1-1	Left Shid:	C	
Shoulder type		Paved	Right Shid:	Gravel		Left Shid:	Gravel	
Length of horizontal curve (mi)		0	0.0			THE RESERVE		
Radius of curvature (ft)		0			0	Aller San	Villa III	Radius Value C
Spiral transition curve (present/not pres	ent)	Not Present	SERVICE CONTRACTOR		Not Present			
Superelevation variance (ft/ft)		< 0.01	Contract of the	VIII m	0	7.2		
Grade (%)		0	1 1 1 1 1 1 1 1 1 1 1	Line, Since	2		10075	
Driveway density (driveways/mile)		5			5			
Centerline rumble strips (present/not pr	esent)	Not Present			Not Present			
Passing lanes [present (1 lane) /presen	(2 lane) / not present))	Not Present	(oten de la constitución de la c		Not Present			10.0
Two-way left-turn lane (present/not pres	ent)	Not Present	STOWN STORY		Not Present			
Roadside hazard rating (1-7 scale)		3	Contract Contract		2		STORY .	100
Segment lighting (present/not present)		Not Present	EN RELIGION OF THE PARTY OF THE	ALC: N	Not Present			176
Auto speed enforcement (present/not p	esent)	Not Present			Not Present			1111
Calibration Factor, Cr		1		Statement of the last	1.00	was a local dealers and the same		

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
CMF for Lane Width	CMF for Shoulder Width and Type	CMF for Horizontal Curves	CMF for Super- elevation		CMF for Driveway Density	CMF for Centerline Rumble Strips	CMF for Passing Lanes	CMF for Two-Way Left-Turn Lane	CMF for Roadside Design	CMF for Lighting	CMF for Automated Speed Enforcement	Combine CMF
CMF 1r	CMF 2r	CMF 3r	CMF 4r	CMR 5r	CMF 6r	CMF 7r	CMF Br	CMF 9r	CMF 10r	CMF 11r	CMF 12r	CMF com
from Equation 10-11	from Equation 10- 12	from Equation 10-13	from Equations 10-14, 10-15, or 10-18	from Table 10-11	from Equation 10-17	from Section 10.7.1	from Section 10.7.1	from Equation 10- 18 & 10-19		from Equation 10-21		(1)x(2)x x(11)x(12)
1.03	1.06	1.00	1.00	1.00	1.00	1.00	1,00	1.00	0.94	1.00	1.00	1.017

121 121 7	Works	heet 1C - Roadway Segment	Crashes for Rural Two	-Lane Two-Way Roadw	ay Segments		
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)
Crash Severity Level	N spf rs	Overdispersion Parameter, k	Crash Severity Distribution	N spf rs by Severity Distribution	Combined CMFs	Calibration Factor, Cr	Predicted average crash frequency,
	from Equation 10-8	from Equation 10-7	from Table 10-3 (proportion)	(2)TOTAL x (4)	(13) from Worksheet 1B		(5)x(8)x(7)
Total	0.024	0.17	1.000	0.024	1.02	1.00	0.025
Fatal and Injury (FI)	_		0.321	0.008	1,02	1.00	0.008
Property Damage Only (PDO)	-	VI - 2"	0.679	0.016	1.02	1.00	0.017

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Collision Type	Proportion of Collision Type(потац)	N productor (TOTAL) (crashes/year)	Proportion of Collision Type _(Fe)	N predictor (FI) (crashes/year)	Proportion of Collision Type _(POO)	N predicted its (PDO) (crashes/year)
	from Table 10-4	(8) TOTAL from Worksheet 1C	from Table 10-4	(8)n from Worksheet 1C	from Table 10-4	(8) _{PDO} from Worksheet 1C
Total	1.000	0.025	1.000	0.008	1,000	0.017
	111 121 12	(2)x(3)total		(4)x(5)n		(8)x(7)poo
			SINGLE-VEHICLE	100,000,000	F: 188	OF R HIRD R R
Collision with animal	0.121	0.003	0.038	0.000	0.184	. 0.003
Collision with bicycle	0.002	0.000	0.004	0.000	0,001	0.000
Collision with pedestrian	0.003	0.000	0.007	0.000	0.001	0.000
Overturned	0.025	0.001	0.037	0.000	0.015	0.000
Ran off road	0.521	0.013	0.545	0.004	0.505	0.008
Other single-vehicle collision	0,021	0.001	0.007	0.000	0.029	0.000
Total single-vehicle crashes	0,693	0.017	0.838	0.005	0.735	0.012
0-17	HERE'S THE	1000	MULTIPLE-VEHICLE	1.1152(21)1		Table Sales
Angle collision	0.085	0.002	0.100	0,001	0.072	0.001
tead-on collision	0.016	0.000	0.034	0,000	0.003	0.000
Rear-end collision	0.142	0.003	0.164	0.001	0.122	0.002
Sideswipe collision	0.037	0.001	0.038	0.000	0.038	0.001
Other multiple-vehicle collision	0,027	0.001	0.028	0.000	0.030	0.001
Total multiple-vehicle crashes	0.307	0.008	0.362	0.003	0.265	0.004

Worksheet 1E Summary Results for Rural Two-Lane Two-Way Roadway Segments								
(1)	(2)	(3)	(4)	(5)				
Crash severity level	Crash Severity Distribution (proportion)	Predicted average crash frequency (crashes/year)	Roadway segment length (mi)	Crash rate (crashes/mi/year)				
1111	(4) from Worksheet 1C	(8) from Worksheet 1C		(3)/(4)				
Total	1.000	0.0	1,352	0.0				
Fatal and Injury (FI)	0.321	0.0	1.352	0.0				
Property Damage Only (PDO)	0.679	0.0	1.352	0.0				





September 27, 2011

Mr. John Thompson Thompson Holdings, LLC PO Box 2015 Horsham, PA 19044

Subject:

Paraiso Hot Springs Resort, Monterey County, California

Traffic Analysis Response to Comments

Dear John,

Below is our response to the peer review comment letter for the *Paraiso Hot Springs Resort Traffic Analysis Report* prepared by Hatch Mott MacDonald on January 21, 2011. The traffic analysis report will be revised to incorporate the responses to comments presented below.

Comment 1- Introduction - The purpose of this review is to ensure that the traffic report conforms to Monterey County standards, to confirm that accepted traffic study methods were used, and to ensure that the findings and recommendations contained in the report adequately address project impacts.

Response: Comment acknowledged.

Comment 2 - Adequacy of the Study Area - Analyzing the one intersection and 13 individual roadway segments included in the traffic analysis is sufficient to accurately identify the potentially significant project impacts associated with the proposed project.

Response: Comment acknowledged.

Comment 3- General Plan Buildout Analysis - Hexagon was not able to verify the 69% growth factor cited in the traffic study for General Plan conditions. Data contained in Appendix C "Traffic Data" of the 2007 Monterey County General Plan Draft EIR indicates that the traffic growth from existing to 2030 buildout conditions would be approximately 75% (based on existing to existing plus project buildout ADT volumes on Arroyo Seco Road, 4,100 to 7,200). This difference likely will have only a minor effect on the level of service analysis and safety analysis and likely would not change the conclusions of the report. It is recommended that the values or methodology used to derive the 69% growth factor be documented in the report.

Response: The intent of the cumulative condition analysis was to model cumulative traffic conditions for at least a 20-year time horizon. Information from the 2004 AMBAG model was used for this study because the Paraiso Hot Springs traffic study was begun and completed prior to the release of the 2007 Monterey County General Plan Draft EIR. The cumulative conditions reflected in the analysis reflect 2030 cumulative conditions based on the AMBAG 2030 land use and traffic forecasts with buildout of the project.

The Monterey County General Plan traffic analysis evaluated a number of future development scenarios. The 75% growth factor cited in the peer review letter is based on Existing Plus Project Buildout Conditions forecast for the Monterey County General Plan.

These volumes do not reflect forecasts of 2030 conditions, but do reflect a buildout condition for the County. The Monterey County General Plan 2030 Cumulative Conditions analysis scenario better reflects year 2030 traffic volumes compared to the Existing Plus Buildout forecasts referenced in the peer review letter.

The Monterey County General Plan EIR 2030 Cumulative Condition forecast volume for Arroyo Seco Road between Fort Romie Road and US 101 is 5,800 vehicles. Using the 2030 Cumulative Condition volume (5,800) to develop a cumulative condition growth factor would result in a growth factor of 42%, 40% less than the 69% value used in the Paraiso Hot Springs traffic study.

Using a 75% growth factor rather than a 69% growth factor would not change the conclusions of the study. Exhibit 1 shows the segment volume forecasts and includes a cumulative condition forecast using the 75% growth factor. Segment levels of service using the 75% growth factor are the same as the segment levels of service using the 69% growth factor.

Comment 4 - Trip Generation Analysis - A review of the site traffic projections finds that the trip generation land-use categories and rates appear to be consistent with the project description. However, a number of assumptions used in the trip generation analysis are not documented in the traffic study.

Response: The trip generation analysis documented in the traffic study provides a reasonable worst-case analysis of project generation based on the description of the project provided at the time the study was prepared and using established trip generation rates and relationships. Understanding that the trip generation for the project is complex as it involves a number of assumptions, the trip generation calculation worksheet for the project was expanded to provide a more detailed presentation of the project assumptions and the trip generation assumptions. In some cases, assumptions were modified to better reflect the project description and generally accepted trip generation factors. The revised trip generation analysis results in trip generation estimates that are lower than presented in the traffic study.

The revised trip generation worksheet by project phase is presented on Exhibits 2A - 2D. The assumptions used to derive the trip generation estimates are provided below.

- 1. ITE trip generation rates were used to estimate the trips for the total project trips.
- 2. The total project trip generation was reduced to account for employee trips that will occur not by passenger vehicle, but by the employee shuttle that will operate between Soledad and the project.
- 3. The total project trip generation was also reduced to account for off-site guest trips that will be served by shuttle rather than personal vehicle.
- 4. The employee and guest shuttle trips were estimated and are included in the project trip generation.
- 5. At project buildout, the applicant anticipates that the facility will be staffed by 218 employees per day operating within three general work shifts when the facility is fully occupied. ITE trip generation data for the Resort Hotel land use indicate that resort hotels are staffed at the rate of 1.7 employees per room. For the project, this rate was used to estimate the total number of employees that will be employed (306) at buildout and was adjusted to a five day work week to estimate the number of employees that will be employed on a daily basis at the project (218). The number of employees that will be employed by project phase is as follows:

		Payroll	Daily
	Units	Employees	Employees
Phase 1	85	145	104
Phase 2	118	201	144
Phase 3	151	257	184
Phase 4	180	306	218

6. It was assumed that 50% of the employees would work the day shift, 37.5% would work the swing shift and 12.5% would work the night shift. On this basis, the number of employees working each shift would be as follows:

	Phase 1	Phase 2	Phase 3	Phase 4
Day Shift	52	72	92	109
Swing Shift	39	54	69	82
Night Shift	13	18	23	27
Total	104	144	184	218

- 7. Not all of the employees in any one shift will arrive at the site during the same one hour period. Employees for any one shift are expected to arrive and depart over a 2 to 3 hour period. Within a peak traffic period on a weekday, there is usually a peak hour for the generator, which is the highest one-hour trip generation for the use, and a street peak hour, which is the highest trip generation for the use that coincides with the highest one-hour volume on the adjacent street network. The peak for the proposed project would generally occur an hour or more prior to the peak hour for the roadway network because shift changes for hotels usually occur at 7 AM, 3 PM and 11 PM. On weekdays, street peaks usually occur after 7 AM and between 4 PM and 6 PM.
- 8. The project trip generation estimates for the AM and PM weekday conditions represent conditions for the "street peak hour." The Saturday peak hour volumes represent the peak hour of the project trip generation because these are the only trip rates available from ITE. An analysis of the weekday peak hour trip generation for the resort hotel on the basis of the "peak hour of the generator" would yield peak hour trip generation estimates very similar to the street peak analysis because the trip generation rates for the street peak and the peak hour of the project are not significantly different in magnitude and because the project will implement a shuttle system that will require 90% of the employees to use the shuttle to access the project site, thus significantly reducing the volume of trips generated by the project during the peak periods.
- 9. A daily trip generation rate for the employees of 2.5 trips per employee was used to estimate the total volume of vehicle trips that would be generated by the employees on a daily basis without the shuttle program. The 2.5 trip rate assumes that most, if not all, employees would drive via single-occupant vehicle and that a small percentage of employees would make multiple trips on and off the site during the day. Given the remote location of the site, it is not expected that many employees would leave the site-during the day. However, the additional 0.5 trips per day per employee included in the daily trip generation rate accounts for multiple trips made by a portion of the employees, additional trips made by employees working split shifts, and additional trips associated with employees that work part-time.
- 10. The estimated number of employees that will arrive and depart during the peak hours are shown on in Section A of Exhibits 2A 2D. During the AM weekday, 32% of the day shift employees are assumed to arrive and 60% of the night shift employees

are assumed to leave the site. During the weekday PM peak hour, 37% of the day shift were assumed to depart and 37% of the swing shift were assumed to arrive. For the Saturday peak hour, 45% of the day shift employees were assumed to depart and 45% of the swing shift employees were assumed to arrive. These relationships are based on trip generation data presented in the ITE Trip Generation Handbook for the Resort Hotel land use for the peak hour of the generator and the peak hour for the adjacent street. Also, it was assumed that 45% of the peak period project trip generation would occur during the peak hour of the generator (i.e., the project).

11. Ninety percent of the employees working on-site will be required to use the employee shuttle. The shuttle would replace the following number of single-occupant vehicle trips that would otherwise be made by employees:

	Phase 1	Phase 2	Phase 3	Phase 4
Daily	235	325	415	492
Weekday AM	22	30	38	46
Weekday PM	30	42	54	63
Saturday	37	51	65	77

- 12. Section B on the trip generation calculation worksheets shows the number of guest trips that will be replaced by guest shuttle trips. Guest shuttle trips consist of day trips and trips to and from the airport. Section C of the worksheet shows the estimated number of shuttle trips on a daily basis and during the peak hours. The guest day trips that would be transported by shuttle are described in No. 13 below. The guest trips to the airport are described in No. 14 below.
- 13. Guest Day Trips One quarter of the guest parties are assumed to make an off-site trip per day and 20% of these trips are assumed to be served by the shuttle bus. Each guest party is assumed to consist of two people. The tables below tabulate the estimated number of off-site guest trips that would be replaced by shuttle trips and the number of shuttle trips that would replace the off-site guest trips. The values in the tables below are not displayed in the tables on Exhibits 2A-2D.

	Guest Parties Daily Off-Site Trips Replaced by Shuttle Trips							
	Phase 1	Phase 2	Phase 3	Phase 4				
Inbound	4	6	8	9				
Outbound	4	6	8	9				
Total	8	12	16	18				

Daily Shuttle Trips For Off-Site Guest Trips
Phase 1 Phase 2 Phase 3 Phase 4
1 2 2 3 3 3

 Inbound
 2
 2
 3
 3

 Outbound
 2
 2
 3
 3

 Total
 4
 4
 6
 6

14. The Resort will provide shuttle service to the Monterey Airport. It was assumed that peak day check-in and check-out would involve 25% of the guest units and 25% of the guests would arrive by air. On this basis, the guest party trips that would be replaced by shuttle trips and the shuttle trips to and from the airport are presented below. The values in the tables below are not displayed in the tables on Exhibits 2A-2D.

	Total Vehicle Trips Replaced by Shuttle Trips (Daily)						
	Phase 1	Phase 2	Phase 3	Phase 4			
Inbound	5	8	10	11			
Outbound	5	8	10	11			
Total	10	16	20	22			

Shuttle Trips That Replace Off-Site and Airport Trips (Daily) Phase 1 Phase 2 Phase 3 Phase 4 Inbound 2 3 4 5 2 3 5 Outbound 4 Total 4 6 10

15. The following tables provide a summary of the total shuttle trips that will be made by guests and the total guest vehicle trips that the shuttle trips replace. The top table shows the guest vehicle trips that are replaced by the shuttle and the bottom table shows the shuttle trips that replace the trips in the upper table.

	Total Vehicle Trips Replaced by Shuttle Trips (Daily)						
	Phase 1	Phase 2	Phase 3	Phase 4			
Inbound	9	14	18	20			
Outbound	9	14	18	20			
Total	18	28	36	40			

	Shuttle Trips That Replace Off-Site and Airport Trips (Daily)						
	Phase 1	Phase 2	Phase 3	Phase 4			
Inbound	4	5	7	8			
Outbound	4	5	7	8			
Total	8	10	14	16			

- 16. It was assumed that the employee shuttle would make 6 round trips per each shift change between the project site and Soledad at the buildout of the project (Phase 4). This would allow for about a 45 minute round trip over an approximate 3½ hour period. It is not likely that 6 round trips would be required between the swing shift and the night shift. Therefore, the calculation provides an allowance for additional mid-day employee related shuttle trips between the project site and Soledad. The employee shuttle trips for the other project phases was estimated based on the proportion of employees in each phase to the total employees at buildout.
- 17. The number of weekday AM and PM peak hour trips generated by the guests that would be reduced due to shuttle usage was determined by taking 20% of the remainder of the peak hour project trip generation (after the 10% internal trip reduction calculation) less the peak hour trips generated by the employees that would use the shuttle. For the Saturday peak hour, it was assumed that two inbound and two outbound airport related trips and that three inbound and three outbound off-site guest trips would be replaced by the shuttle at project buildout (Phase 4). The peak hour Saturday trips replaced by the shuttle for the other project phases is proportional to the total number of units by phase to the total project buildout units.

18. On the basis of the calculations described above, the employee and guest shuttle program will reduce the project trip generation by the following amounts by phase:

	Phase 1	Phase 2	Phase 3	Phase 4
Daily	227	319	407	480
AM Peak Hour	18	26	34	42
PM Peak Hour	26	38	50	60
Saturday PH	33	49	65	79

19. The total project trip generation is summarized on Exhibits 2A-2D in the box labeled Net Project Trip Generation. At buildout with 100 percent occupancy, the project would generate 406 trips daily, with 12 trips during the AM peak hour, 15 trips during the PM peak hour and 69 trips during the Saturday peak hour over the existing trip generation for the site.

The net new project trips after accounting for the existing traffic generation of the site is summarized at the bottom of Exhibits 2A-2D (Project Net Trip Generation Above Existing Use). Based on the calculation procedures summarized above, the project at buildout with 100 percent occupancy would generate 386 trips daily, with 10 trips during the AM peak hour, 13 trips during the PM peak hour and 67 trips during the Saturday peak hour over the existing trip generation for the site. This compares to the project trip generation evaluated in the January 2011 traffic study of 482 daily trips, with 23 trips during the AM peak hour, 42 trips during the PM peak hour and 91 trips during the Saturday peak hour over the existing trip generation for the site at buildout with 100% occupancy. The trip generation evaluated in the January 2011 traffic study is greater than the trip generation based on the detailed trip generation analysis presented in the sections above. Therefore, the traffic analysis presented in the January 2011 traffic report provides a conservative, worst-case analysis of traffic impacts. Nevertheless, the trip generation estimates described above will be incorporated into an updated traffic report.

Comment 5 - Trip Generation Analysis, Hotel Trip Generation Rates - Trips attributable to hotel employees make up a sizable portion of the overall project trips. The source of the hotel employee trip rates or the assumptions used to develop these rates should be documented.

Response: The assumptions used in the revised trip generation calculation are described in #5-#11 above. The peak hour trip generation rates in the traffic study for the hotel employees are trip generation rates for ITE Land Use Code 140, Manufacturing. The trips generated by the Manufacturing land use are primarily employee trips because this use does not generate significant volumes of non-employee trips during the day. The Manufacturing land use trip generation rates provide a good surrogate for estimating the number of employee trips generated by a land use. For the revised calculations presented on Exhibits 2A –2D attached to this letter, the estimated number of employees arriving and departing during the peak hours was used for the peak hour trip generation rather than a trip generation calculation using ITE trip generation rates for the manufacturing land use. Since three work shifts are proposed at the hotel, the calculation based on the estimated employees arriving and departing during the peak hours provides a more precise estimate of the employee trip generation during the peak hours than the manufacturing land use trip generation rate. A daily trip rate of 4.5 trips per employee was inadvertently used for the hotel employees rather than 2.5 trips per employee, which is slightly higher than the daily trip generation rate for the manufacturing land use.

Comment 6 - Trip Generation Analysis, Employees to be Shuttled, Phase 3 - The number of employees to be shuttled to the site does not appear to match assumptions documented in Footnote 4 of the trip generation table. Additionally, some of the employee numbers fluctuate from one phase to the next. For example, the number of weekday day employees shuttled with various phases is 34 with Phase 1, 42 with Phase 2, and 35 with Phase 3.

Response: The number of employees per phase is proportional to the number of hotel rooms per phase. The number of employees arriving by shuttle for Phase 3 shown on Exhibit 6C of the January 21, 2011 report was incorrectly calculated and was underestimated. corrected trip generation calculation for Phase 3 is attached as Exhibit 3 using the trip generation worksheet provided in the January traffic study. In the January 2011 study, the number of employees using the shuttle was underestimated with 44 employees estimated using the employee shuttle for Phase 3 on a weekday. The correct number of employees using the shuttle using the trip generation methodology documented in the January 2011 report is 63. The underestimation of employee shuttle trips for Phase 3 resulted in an overestimation of the total project trip generation for the January 2011 study. In the January report, the maximum project Phase 3 net trip generation above the existing use was 455 daily trips and the corrected value is 385 daily trips, a difference of 70 vehicle trips per day. In the January report, the average Phase 3 net trip generation above the existing use was indicated to be 313 daily trips versus the corrected value of 264 daily trips, a difference of 49 vehicle trips per day. These comparisons are based on the trip generation methodology described in the January 2011 report.

Comment 7 - Trip Generation Analysis, Allocation of Employee Trips to the Peak Hours - The assumptions used to allocate trips associated with the various employee shifts to the various study peak hours should be documented for clarity.

Response: The allocation of trips associated with the various employee shifts to the various peak hours is described in #7-#10 in response to Comment 4.

Comment 8 - It is not clear from our review of the trip generation table, how the 20% guest trip reduction (due to the shuttle) is calculated. Also, this number is lower under buildout than under Phase 3 conditions.

Response: The methodology for calculating the estimate of guest shuttle use for the peak hours is described in #17 in response to Comment 4. The methodology for calculating the estimate of daily guest shuttle use is described in #12-#15 in response to Comment 4.

The number of employees arriving by shuttle, which effects the calculation of the guest trip reduction, has been corrected for Phase 3.

Comment 9 – The safety analysis does not consider intersections. Two intersections should be added – Clark Road/Paraiso Springs Road and Clark Road/Arroyo Seco Road.

Response: .

Clark Road/Paraiso Springs Road Intersection

The Clark Road/ Paraiso Springs Road is an uncontrolled, three-leg intersection. The HSM does not currently contain prediction algorithms for uncontrolled or YIELD controlled intersections. Application of the three-leg, stop control accident prediction equations that are

included in the HSM would not provide a valid analysis of the potential safety impacts of the project to the intersection.

The comparison of the historical crash rates to statewide average crash rates is typically used in traffic impact studies to determine whether an existing safety related problem exists at an intersection. In addition, the need for safety related improvements at an intersection based on existing or future traffic volumes is typically assessed in traffic impact studies by evaluating the following:

- 1. Warrants for traffic control
- 2. Warrants for left and right turn channelization
- 3. Warrants for road lighting

The HSM provides a methodology to estimate future accident rates for rural two-lane roads and intersections, but in the case of the Paraiso Springs Road/Clark Road intersection, the predictive equations and methodology do not apply. Therefore, warrants for traffic control, channelization and road lighting were evaluated at the Paraiso Springs Road/Clark Road intersection as a substitute to a safety analysis based on the HSM predictive equations.

Between 1991 and 2010, there were no reported accidents at the Paraiso Springs Road/Clark Road intersection. This compares to an average statewide accident rate for three-leg, uncontrolled intersections that is documented by Caltrans of 0.15 accidents per million entering vehicles. Based on a 20-year accident history, there have been no accidents and, therefore, there is no demonstrated safety problem at the Paraiso Springs/Clark Road intersection.

The California MUTCD provides the following guidance for the installation of STOP signs on low-volume rural roads:

STOP (R-1) and YIELD (R1-2) signs should be considered for use on low-volume roads where engineering judgment or study, consistent with the provisions of Sections 2B.04 to 2B.10, indicates that either of the following conditions applies:

- A. An intersection of a less-important road with a main road where application of the normal right-of-way rule might not be readily apparent.
- B. An intersection that has restricted sight distance for the prevailing vehicle speeds.

There is no indication that application of the normal right-of-way rule is a problem at the intersection or will be a problem in the future with the project developed. There have been no accidents at the intersection over the last 20-year period. The corner sight distance looking from the Clark Road approach to the Paraiso Springs Road approaches is not constrained. The sight distance looking from the Clark Road approach to the south is about 500 feet and the sight distance looking to the north is about 660 feet. Therefore, no change to the existing traffic control is recommended in conjunction with development of the project.

The County of Monterey has an adopted policy for evaluating the need for left turn lanes. The warrant worksheet is provided in Attachment A. The left turn warrant was evaluated using the cumulative condition peak hour volumes documented in the January 2011 traffic study for the project. As shown on the worksheet, a left turn lane is not warranted on the southbound Paraiso Springs Road approach to Clark Road. The cumulative condition traffic volumes in the January 2011 study represent 20-year forecast traffic condition and

approximate General Plan Buildout traffic forecasts as documented in the Monterey County General Plan Circulation Study.

Right-turn lane warrants documented in NCHRP Report 287, *Intersection Channelization Guide*, were used to evaluate the need for right turn channelization on the northbound Paraiso Springs approach to Clark Road. As shown on the worksheet contained in Attachment A, a right turn lane would not be warranted on the northbound Paraiso Springs approach to Clark Road based on the cumulative traffic volumes presented in the January 2011 traffic report.

Widening to provide separate left and right turn channelization on the Clark Road approach to Paraiso Springs Road is not required because the intersection is projected to continue to operate at an excellent LOS A with the project developed. The Paraiso Springs Road/Clark Road intersection is projected to operate at LOS A for the long-range cumulative condition as documented in the January 2011 traffic impact study for the project.

Warrants for intersection lighting are published in the Caltrans Traffic Manual. At existing intersections, safety lighting may be provided if one of the following conditions is met:

- 1. A Minimum Vehicular Volume, an Interruption of Continuous Traffic or Minimum Pedestrian Volume traffic signal warrant is satisfied for any single hour which may be in darkness in winter months.
- 2. Four or more nighttime accidents in any recent consecutive 12-month interval or six or more nighttime accidents in any recent consecutive 24-month interval.
- 3. Where a traffic signal or an intersection flashing beacon is installed.
- 4. Where combinations of sight distance, or horizontal or vertical curvature of the roadway, channelization or other factors constitute a confusing or unsatisfactory condition that may be improved with lighting. The project report covering such lighting should include an explanation of the factors constituting the confusing or unsatisfactory condition.

To meet the warrant described in No. 1 would require peak hour volumes entering the intersection of at least 400 vehicles. Peak hour volumes with the project fully developed are not anticipated to exceed 100 vehicles on any of the intersection approaches. Therefore the first warrant is not met. No accidents have been reported in the last 20 years at the intersection. There is no flashing beacon or traffic signal installed at the intersection. The horizontal and vertical alignments of the intersecting roadways and the sight distance conditions at the intersection do not create confusing or unsatisfactory conditions that would require the installation of lighting. The criteria required for the installation of intersection lighting is not met.

On the basis of the analyses described above, safety related improvements consisting of traffic control, left and right turn lanes and roadway lighting are not required at the Paraiso Springs Road/Clark Road intersection under existing conditions or with the project developed.

Clark Road/Arroyo Seco Road Intersection

The Arroyo Seco Road/Clark Road intersection is outside the original study area and beyond the scope of work as verified in Comment 2 of the peer review. Nevertheless, the HSM safety analysis was applied to the Arroyo Seco Road/Clark Road intersection to verify that the project would not have a safety related impact to the intersection. According to Monterey

County accident records, no accidents have occurred at the Arroyo Seco Road/Clark Road intersection between 1991 and 2010.

Exhibit 4 shows the results of the HSM accident prediction analysis for the Arroyo Seco Road/Clark Road intersection. The HSM safety model predicts 2.6 accidents should have occurred at the Arroyo Seco Road/Clark Road intersection between 1991 and 2010, or 0.13 accidents per year on average. The HSM accident prediction worksheets for the 1991 to 2010 period are provided in Attachment B. Because no accidents occurred at the intersection between 1991 and 2010, the Empirical Bayes adjustment results in an expected crash frequency of about 1 crash over the 20-year period or 0.54 crashes per year.

The expected accident frequency at the Arroyo Seco Road/Clark Road intersection at project buildout is 0.13 crashes per year. This calculation utilizes traffic forecasts based on project buildout as reflected in the project trip generation estimate provided on Exhibit 2D. The HSM calculation worksheets for the predicted accidents during the base (1991-2010) period and the forecast period are contained in Attachment B.

Exhibit 5 presents a summary of the crash history and expected crash frequency at project buildout at the Arroyo Seco/Clark Road intersection. Also, the expected accident rate at project buildout is summarized and compared to the statewide average accident rate on Exhibit 5. The columns that are labeled "Predicted Accident Frequency" display the predicted accident statistics derived from the HSM model that are not adjusted for the Empirical Bayes procedures. The columns labeled "Expected Accident Frequency" show the expected accident statistics after the Empirical Bayes adjustment. According to Caltrans statistics, the statewide average accident rate for a rural "T" intersection with stop control on the minor road approach is 0.20 accidents per million entering vehicles. The expected accident rate at the Arroyo Seco Road/Clark Road intersection at project buildout is 0.18 accidents per million entering vehicles. The expected accident rate is less than the statewide average accident rate. Therefore, the safety related impact of the project would not be significant and no improvements would be required at the intersection.

Comment 10 – The Highway Safety Manual (HSM) analysis should have considered Crash Modification Factors including grade, horizontal curvature and vertical curvature.

Response: At the time the safety analysis was performed, the Highway Safety Manual had just been released and no software was available to perform a comprehensive analysis. In order to determine the relative change in accident frequency associated with potential road improvements, the only roadway characteristics subject to change were included. These include lane width, shoulder width, striping and delineation and roadside barriers. Attached is a new safety analysis that uses a spreadsheet analysis tool that is provided on the HSM website. The results are summarized on Exhibits 6 through 11. The analysis tool includes all of the roadway characteristics and the Empirical Bayes procedures have been applied to derive expected accident frequencies from the predicted frequencies. There are no quantitative or qualitative changes in conclusions documented in the January 2011 traffic study resulting from the use of the HSM spreadsheets and the Empirical Bayes adjustment.

Exhibit 6 provides a summary of the safety analysis using the HSM analysis spreadsheet and the Empirical Bayes adjustments for Paraiso Springs Road. The left portion of the table on Exhibit 6 provides an analysis of the predicted accidents on Paraiso Springs Road over the last 20 year period. A sixth segment, F, has been added to the analysis. Segment F is the curve located at the Panziera driveway.

The HSM model predicts 4 crashes should have occurred on Paraiso Springs Road over the last 20-year period. Over the last 20 year period, 2 crashes have been recorded. Applying the Empirical Bayes adjustment to the study roadway, the expected crash frequency is about 3 crashes over the 20-year period or 0.145 crashes per year.

The last three columns on Exhibit 6 show the predicted and expected crashes for the project buildout condition. The HSM model predicts 0.266 crashes per year would occur on Paraiso Springs Road at project buildout. The last column in the table provides the expected accident rate at project buildout after applying the 1991-2010 condition Empirical Bayes adjustment. At project buildout, the expected accident frequency for the study roadway is 0.193 crashes per year. This is based on the ADT estimates presented in the traffic study, which are conservatively high.

Exhibit 7 provides a summary of the safety analysis for Clark Road using the HSM analysis spreadsheet and the Empirical Bayes adjustments. The HSM model predicts 0.5 crashes should have occurred on Clark Road over the last 20-year period. Over the last 20 year period, no crashes have been recorded. Applying the Empirical Bayes adjustment to the study roadway, the expected crash frequency is about 0.433 crashes over the 20-year period or 0.022 crashes per year.

The HSM model predicts 0.118 crashes per year would occur on Clark Road at project buildout. The last column in the table provides the expected accident rate at project buildout after applying the 1991-2010 condition Empirical Bayes adjustment. At project buildout, the expected accident frequency for the study roadway is 0.102 crashes per year.

The HSM crash frequency calculation worksheets for the segment analysis are presented in Attachments C through I.

Comment 11 - The sharp curve in Paraiso Springs Road, near the Panziera property driveway, should be evaluated as a curved segment. If the accident frequency is substantially higher with this segment evaluated as a curve, then stop signs should be added at this location to create a stop-controlled intersection as a way to reduce the accident frequency.

Response: A new segment for this curve has been added in the safety analysis. This segment was analyzed in conjunction with the other Paraiso Springs Road segment to assess the crash frequency for the road in total. The analysis procedure that was used is consistent with the Predictive Method for Rural Two-Lane, Two-Way Roads methodology that is documented in the Highway Safety Manual. Impact significance is determined on the basis of comparisons to statewide accident rates for the roadway as a whole, as opposed to individual elements of the roadway. This is standard practice for evaluating safety impacts. Therefore, the conclusion remains that there is no safety impact.

Comment 12 – Hexagon was able to reproduce the predicted accident frequencies calculated in Exhibits 13 and 15. Therefore, it appears as though the CMFs for lane and shoulder widths were applied correctly. However, we were not able to reproduce the lane and shoulder width CMFs calculated in Exhibits 14 and 16. We recommend adding additional discussion to the text of the report indicating how these CMFs were calculated.

Response: Comment acknowledged. Based on the new analysis using HSM software described in the response to Comment 10, CMF values documented in the Highway Safety Manual have been utilized. The CMF values used in the analysis are shown on Exhibits 8 and 9.

Comment 13 – The calculated predicted crash frequency results were not weighted using the Empirical Bayes Method.

Response: The predicted number of crashes at project buildout based on the HSM equations has been adjusted using the Empirical Bayes analysis. The results of the analysis are described in the response to Comment 10 and are summarized on Exhibits 6 and 7. The HSM model predicted 4.05 crashes (0.203 crashes per year) should have occurred on Paraiso Springs Road between 1991 and 2010. During this period, two accidents occurred (0.10 crashes per year). The expected number of crashes during the 1991 to 2010 period after applying the Empirical Bayes method is 2.9 (0.15 crashes per year). The Empirical Bayes analysis was applied to future conditions with the project built out. During the 20-year period with Phase 4, project buildout, 3.8 crashes are expected to occur, or 0.193 crashes per year.

The HSM model predicted 0.50 crashes (0.025 crashes per year) should have occurred on Clark Road between 1991 and 2010. During this period, no accidents occurred. The expected number of crashes during the 1991 to 2010 period after applying the Empirical Bayes method is 0.433 (0.022 per year). During the 20-year period with Phase 4, project buildout, 2.0 crashes are expected to occur, or 0.10 crashes per year.

Comment 14 – The traffic study does not identify thresholds used for determining what magnitude increase in accident frequency would be considered significant. The risk assessment thresholds identified in *Guidelines for Geometric Design of Very Low-Volume Roads* as described in Comment 16 should be considered for use as the thresholds.

Response: The traffic study does identify thresholds used for determining what magnitude increase in accident frequency would be considered significant – Statewide Average Accident Rates. This is described on Page 13 of the January 2011 traffic study. This is the standard method used for determining whether a roadway or intersection has safety issues that need to be remediated. The response to Comment 16 describes that the use of the risk assessment thresholds in *Guidelines for Geometric Design of Very Low-Volume Roads* result in the same conclusion that the Project does not require improvements.

Comment 15 – The traffic analysis compares the projected accident frequencies with the project to accident frequencies associated with "historic" conditions when the site was previously in operation (i.e., pre-2005 conditions). This comparison is useful to gain perspective on how the projected traffic volumes and accident conditions will compare to previous times when roadway volumes were similar. However, we recommend using existing conditions for the baseline to which project conditions are compared for the purpose of determining significant changes in accident frequency. Existing conditions rather than historical conditions should be used for the determination of impacts.

Response: The analysis of impact significance is discussed in the response to Comment 16. The impact significance test used in the traffic study was a comparison of the predicted accident rate versus the Statewide Average Accident Rates for similar facilities. Historical crash frequency over the last 20-year period was used to derive historical crash rates for the study roadways. This is appropriate because roadway design elements have remained

relatively unchanged over this period, crash statistics are available for this period of time and traffic volumes on the roadway for 15 of the last 20-year period are comparable to the volumes that the project will generate. The crash history for the last 20-year period provides a good indication of the expected future crash frequency with the project developed.

Comment 16 - Safety Analysis Thresholds of Significance – The traffic study does not cite a threshold for evaluating existing roadways in which traffic volumes would increase due to a proposed development project. A risk assessment threshold of one additional traffic crash per mile of roadway every 6 to 9 years could be used as the basis for assessing the magnitude of likely safety impacts on an existing road associated with a new development project in which the action or proposed action would be the change in traffic volume attributable to the proposed development project. Note that the risk assessment threshold is not a threshold for identifying significant environmental impacts.

Response: Comparison of predicted accident rates with the project to state-wide average accident rates was the methodology used in the traffic study to evaluate safety impact significance.

Exhibit 10 presents a summary of the crash history and expected crash frequency at project buildout on Paraiso Springs Road. Accident rates are also summarized and compared to statewide accident averages. Exhibit 10 is a revised version of Exhibit 13 presented in the January 2011 traffic study.

The build-out of the Paraiso Hot Springs Resort is expected to result in 0.193 crashes per year along the 1.419 mile segment of Paraiso Springs Road between the Project Site and Clark Road. The historical expected accident rate over the last 20 year period is 0.145 crashes per year. This is an increase of 0.048 crashes per year, or about 0.034 accidents per mile per year. This is an increase of 1 accident per mile every 29.6 years, which is less frequent than the peer review suggested threshold of one accident per mile every 6 to 9 years. A comparison of the most recent 5-year period to conditions at project buildout indicates that the project will result in an increase of 1 accident every 10.0 years. Therefore, the Project does not create a need for improvements on Paraiso Springs Road.

Exhibit 11 presents a summary of the crash history and expected crash frequency at project buildout on Clark Road. Accident rates are also summarized and compared to statewide accident averages. Exhibit 11 is a revised version of Exhibit 14 presented in the January 2011 traffic study.

The build-out of the project is expected to result in 0.102 accidents per year along the 1.352 mile segment of Clark Road between Paraiso Springs Road and Arroyo Seco Road. The historical expected accident rate over the last 20 years is 0.022 accidents per year. This is an increase of 0.080 accidents per year, or about 0.056 accidents per mile per year. This is an increase of 1 accident per mile every 17.7 years, which is less frequent than the peer review suggested threshold of one accident per mile every 6 to 9 years. A comparison of the most recent 5-year period to conditions at project buildout indicates that the project will result in an increase of 1 accident every 14.9 years. Therefore, on the basis of the peer review suggested threshold criteria, the Project does not create a need for improvements on Clark Road.

The use of the state-wide average accident rates result in the determination that the Project will not result in a significant safety impact. The expected accident rate of 0.89 accidents per million miles of travel on Paraiso Springs Road is less than the statewide average of 1.02 accidents per million miles of travel. The expected accident rate of 0.65 accidents per million miles of travel on Clark Road is less than the statewide average of 1.02 accidents per million miles of travel for similar roadways. Therefore, the proposed project will not have a significant safety impact to Paraiso Springs Road or Clark Road.

Application of the suggested significance criteria (change in accidents over a 6 to 9 year period) as suggested in the peer review comment letter would not change the conclusions of the analysis. In addition, it should be noted that the threshold of acceptable risk levels referenced from the AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads were developed for new road construction, not existing roads. In the case of a traffic impact analysis such as this, the suggested criteria does not apply.

Comment 17- Roadway Design Standards – The project will represent many new travelers who are not familiar with the road that the Rural Recreational and Scenic Roads functional classification should be used. This would result in 20 foot roadway width for design speeds of 40mph or more, a clear zone of 6 feet where feasible, selective use of roadside barriers such as guardrail where clearly warranted, provision of sight distance and vertical and horizontal alignment in compliance with AASHTO Guidelines for Very Low Volume Roads.

Response: The comment relates to mitigations, of which the project needs none. In addition, the HSM safety analysis does not differentiate functional subclass (road type). Also, driver familiarity is not a consideration in the HSM analysis. This comment is therefore moot.

Comment 18 – Conclusions and Recommendations – The peer review of the traffic study identified the following key issues and observations:

- 1. It is recommended that the values or methodology used to derive the 69% cumulative traffic growth factor be documented in the report. **Response:** The 69% growth factor was derived from traffic forecasts from the 2004 AMBAG traffic model. The analysis has been updated to use a worst case 75% increase, which does not change any conclusion documented in the January 2011 study. See response to Comment 3.
- 2. The various assumptions, methodologies, and calculations used in the trip generation analysis should be verified for accuracy and correctness. It is recommended that additional documentation be added to the traffic study to support the trip generation analysis. Response: A description of the methodology and assumptions are included in the response to Comment 4. Revised trip generation worksheets that include additional detail are attached.
- 3. It is recommended that the effects of other geometric features on the study route be considered, such as grade, vertical curvature, horizontal curvature and key intersections. It is recommended that additional documentation be added to the report with respect to the calculated crash modification factors used in the analysis. Consideration should be given to weighting the accident analysis results with actual observed crash data for the study route. The various assumptions in the safety analysis should be documented in the traffic study. Response: The safety analysis has been revised to include all roadway characteristics as described in the response to Comment 10. The Empirical Bayes Method has been used to weight the accident

analysis results based on the actual observed crash data as described in the response to Comment 13. The safety analysis worksheets provide a description of each road segment that was analyzed.

- 4. The traffic analysis compares the projected accident frequencies with the project to accident frequencies associate with "historic" conditions when the site was previously in operation. It is recommended that existing conditions be used for the baseline to which project conditions are compared. This procedure should be combined with engineering judgment and consultation with County traffic engineers to determine if roadway improvements are necessary to remedy a potentially significant increase in accident frequency. **Response:** As described in the response to Comment 15, the expected accident rates are compared to the Statewide Average Accident Rates for similar facilities to evaluate impact significance, not historical accident rates. The historical accident rates are provided for comparison. The historical accident history was used in the Empirical Bayes adjustments to adjust the predicted accident frequency with the historical accident frequency. The historical accident data are used in the analysis for calibration of the HSM model results and are not used to test the significance of project safety impacts.
- 5. The traffic study does not identify the thresholds used for determining what magnitude of increase in accident frequency would be considered significant, thereby warranting roadway improvements. It is recommended that the risk assessment thresholds contained in Guidelines for Geometric Design of Very Low-Volume Local Roads be considered as the thresholds for determining if roadway improvements are warranted as a result of the added traffic volume associated with the project. **Response:** This comment is addressed in the response to Comment 16. Comparison of predicted accident rates with the project to state-wide average accident rates was the methodology used in the traffic study to evaluate safety impact significance. On this basis, the proposed project will not have a significant safety impact to Paraiso Springs Road or Clark Road roadway segments. Application of the suggested threshold criteria of adding no more than one additional traffic crash per mile of roadway every 6 to 9 years would not change the conclusion of the analysis.
- 6. Any roadway improvement made should meet the design standards for Rural Recreational and Scenic Roads. County traffic engineers should be consulted and engineering judgment should be exercised on a case-by-case basis to determine the extent and timing of necessary roadway improvements. The appropriate roadway design standard should be determined in consultation with County traffic engineers. **Response:** The comment relates to mitigations, of which the project needs none. In addition, the HSM safety analysis does not differentiate functional subclass (road type) or include driver familiarity as a consideration in the analysis. The project will not result in significant safety impacts on the basis of the safety analysis conducted for the project.

The responses provided in this letter address the comments provided in the peer review of the January 21, 2011 traffic study prepared for the Paraiso Hot Springs project. Additional discussion of analysis assumptions and procedures as well as additional analysis of potential project impacts are provided in this letter. The conclusions documented in the January 2011 study remain unchanged. The project will not result in significant safety and capacity impacts.

Please do not hesitate to contact me or Dan Takacs if you have any questions regarding this information.

Keith B. Higgins, CE, TE Vice President

									80 0		3		_				
					Historic			%02			100%			Long Term Cumulative	E e	Long Term Cumulative	F 9
			Existing (2009)	(600	Project	Existing + Historic	Historic	Project	Existing + 70%	%02	Project	Existing + 100%	100%	Conditions (69%		Conditions (75%	75%
			Conditions	ns	Traffic	Project Conditions	ditions	Traffic	Project Conditions	ditions	Traffic	Project Conditions	ditions	Growth Factor)	ctor)	Growth Factor	tor)
			Volumes	SOT	Volumes	Volumes	ros	Volumes	Volumes	ros l	Volumes	Volumes	SOI	Volumes	1 801	Volumes	SOI
Location	2004 Volumes Sour	Source	(ADT)		(ADT)	(ADT)		(ADT)	(ADT)		(ADT)	(ADT)					
Arroyo Seco Rd. from Thorne Rd. to Clark Rd.	1,800	-	1,800	4	63	1,863	4	99	1,866	<	98	1,896	4	3,100	<	3,150	<
Arroyo Seco Rd. from Fort Romie Rd. to State Highway 101	4,200	-	4,400	В	219	4,619	ω	234	4,634	8	338	4,738	8	7,100	ω	7,350	8
Fort Romie Rd. from Foothill Rd. to Arroyo Seco Rd.	2,100	-	2,200	∢	16	2,216	4	16	2,216	⋖	24	2,224	<	3,600	4	3,700	۷
Foothill Rd. from Fort Romie Rd. to Paraiso Springs Rd.	160	-	220	∢	16	536	∢	16	236	<	24	244	<	260	<	580	⋖
Paraiso Springs Rd. from Clark Rd. to Arroyo Seco Rd.	¥	7	150	∢	220	400	∢	32	182	∢	84	198	⋖	300	⋖	300	⋖
Paraiso Springs Rd. southwest of Clark Rd. (Segment A)	₹	7	150	∢	313	463	∢	332	482	⋖	482	632	⋖	200	⋖	200	⋖
Paraiso Springs Rd. from Project Site to Clark Rd. (Segment C)	₹	7	82	∢	313	398	∢	332	417	∢	482	267	4	280	⋖	280	∢
Paraiso Springs Rd. at Project Site Entrance (Segment E)	₹	7	20	∢	313	333	⋖	332	352	∢	482	502	<	200	4	200	∢
Clark Rd. from Paraiso Springs Rd. to Arroyo Seco Rd.	≨	7	20	∢	83	83	∢	300	320	∢	434	454	⋖	450	⋖	450	⋖
Arroyo Seco Hwy. 101 SB Off-Ramp	1,680	က	2,000	<	94	2,094	⋖	9	2,100	∢	145	2,145	4	2,840	⋖	2,940	⋖
Arroyo Seco Hwy. 101 SB On-Ramp	420	က	220	∢	16	266	۷	17	267	∢	24	574	⋖	260	⋖	790	⋖
Arroyo Seco Hwy. 101 NB Off-Ramp	390	က	400	∢	15	415	۷	17	417	∢	24	424	∢	099	⋖	069	⋖
Arroyo Seco Hwy. 101 NB On-Ramp	1,680	3	1,500	٧	94	1,594	٧	100	1,600	۷	145	1,645	۷	2,840	۷	2,940	∢
County Volume Totals	8,260		8,620														1
Percentage Change from 2004 to 2009			4%														

Notes:
1. *- The sources of volumes are as follows:
1. 2009 Monterey County Traffic Counts
2. Estimates from peak hour manual counts.
3. 2009 Ramp Volumes on the California State Freeway System - District 5, Caltrans.
2. NA - Traffic Counts are not provided by Monterey County.

Paraiso Hot Springs, Monterey County Project Trip Generation Phase 1

				AM P	EAK HO	UR	PM PE	AK HO	DUR	SAT. P	EAK H	DUR
	TRIP		AVG.	TOTAL			TOTAL			TOTAL		
	RATE	INDEPENDENT	DAILY	PEAK			PEAK			PEAK		
CROSS TRIP CENERATION PATES	SOURCE	SIZE	TRIPS 1	HOUR	IN	OUT	HOUR	IN	OUT	HOUR	IN	OU
GROSS TRIP GENERATION RATES												
Proposed Project										Live State		
Resort Hotel ²	ITE 330	Per Occupied Room	6.13	0.37	72%	28%	0.49	43%		1.23	50%	509
Residential (Single-Family Detached) 3	ITE 210	Per Unit	9.57	0.75	25%	75%	1.01	63%		0.93	53%	479
Recreational Homes 3	ITE 260	Per Unit	3.16	0.16	67%	33%	0.26	41%	59%	0.36	48%	529
Hotel Employee		Per Employee	2.50			•		-	-	-	-	-
Previous Use												
Day Guests		Per Day Guest	5.00	0.4	94%	6%	0.4	6%	94%	0.2	50%	509
Visitor Units and Campground/Recreational Vehicle Park		Per Occupied Unit	6.13	0.2	42%	58%	0.37	69%	31%	0.74	60%	409
			1. 5778		EAK HO	UR	PM PE	AK HC	UR	SAT. PI	EAK HO	OUR
	TRIP		AVG.	TOTAL			TOTAL			TOTAL		
	RATE	PROJECT	DAILY	PEAK			PEAK			PEAK		
	SOURCE	SIZE	TRIPS 1	HOUR	· IN	OUT	HOUR	IN	OUT	HOUR	IN	OUT
PROJECT GROSS TRIP GENERATION						i						
Resort Hotel (100% Occupied)	ITE 330	62 Units	380	23	17	6	30	13	17	76	38	38
Residential Homes (100% Occupied)	ITE 210		48	4	1	3	5	3		5	3	٠,
Recreational Homes (100% Occupied)	ITE 260		57	3	2	1	5	2		6	3	3
Gross Total		85 Units	485	30	20	10	40	18		87	44	43
Net Total Assuming 10% Internal Reduction between Residential a	and Resort	GO OTHE	436	27	18	9	36	16		78	40	39
FUD OVERA				1000						100		
EMPLOYEES*			9 5 3 3 7 6									
Employees per room	1.7											
Total Payroll Employees (1.7 x 85)	145	i -	an house									
Workweek reduction factor (5 day work week, 5/7)	0.71											
Employees per day (all shifts)	104											
TRIP REDUCTION STRATEGIES	Total	Shuttle					x 63. T			1-39		1
A. Employee Shuttle Trip Reduction ⁵	Employees											
				45								
Employee Shuttle (Weekday Day)	52			15	15	0	17	0	17			
Employee Shuttle (Weekday Swing)	39			15/10/2			13	13	0			
Employee Shuttle (Weekday Night)	13			7	0	7						
Employee Shuttle (Weekend Day)	52									21	0	21
Employee Shuttle (Weekend Swing)	39	35 Employees								16	16	C
Employee Shuttle (Weekend Night)	13	12 Employees										
Total Employee Shuttle Related Trip Reduction	104	94 Employees	235	22	15	7	30	13	17	37	16	21
B. Guest Vehicle Trip Reduction ⁸			18	1	1	0	2	1	1	4	2	2
C. Shuttle Trips Added				143								
Employee Shuttles			18	4	2	2	4	2	2	4	2	2
Guest Shuttle			8	1	0	1	2	1	1	4	2	2
Total Shuttle Trips			26	5	2	3	6	. 3	3	8	4	4
Proposed Project Shuttle Related Trip Reduction Subtotal			227	18	14	4	26	11	15	33	14	19
NET PROJECT TRIP GENERATION					1. 5. 15			17(2)				15
Proposed Net Project Trips Subtotal - 100% Occupancy			209	9	4	5	10	5	5	45	26	20
Proposed Net Project Trips Subtotal - 70% Occupancy			146	6	3	3	7	3	4	32	18	14
PREVIOUS PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION (F	PE-20051				107		dia.	410		10.672	Z.	
		61 Units	274	40		7	20	40	-	45	07	
Visitor Units and Campground/Recreational Vehicle Park			374	12	5	7	23	16	7	45	27	18
Day Guests		5 Day Guests	25	2	2	0	2	0	2	8	4	4
Previous Project Subtotal (when in full operation pre-2005)			399	14	7	7	25	16	9	53	31	22
EXISTING PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION			20	2	1	1	2	1	1	2	1	1
PROJECT NET TRIP GENERATION ABOVE PREVIOUS (PRE-2005) USE	f. Sales				Telepin.	-						
MAXIMUM - PROPOSED PROJECT 100% OCCUPIED			-190	-5	-3	-2	-15	-11	-4	-8	-5	
AVERAGE - PROPOSED PROJECT 70% OCCUPIED			-253	-5 -8	-3 -4	-4	-18	-13	-4 -5	-8 -21	-13	-2
DO FOT MET TOD OF MEDITION ADDITION ADDITION ADDITIONAL		-										**************
PROJECT NET TRIP GENERATION ABOVE EXISTING USE				N K BY								
MAXIMUM - PROPOSED PROJECT 100% OCCUPIED			189	7	3	4	8	4	4	43	25	19
AVERAGE - PROPOSED PROJECT 70% OCCUPIED			126	4	2	2	5	2	3	30	17	13

- 1. ITE daily rates are not available for Resort Hotel. Daily traffic is estimated based on 8% of the daily trips occuring in the evening peak hour.
 2. Resort hotel gross trip generation rates are based on *Trip Generation*, 8th Edition, published by Institute of Transportation Engineers, 2008.
- Land Use code 330, Resort Hotel. This trip generation rate includes trips generated by all facilities and activities at the site associated with the hotel, such as restaurants, gift shops, conference facilities and recreational facilities.
- Residential and Recreational Homes gross trip generation rates are based on Trip Generation.
 8th Edition, published by Institute of Transportation Engineers, 2008.
 Land Use code 260, Recreational Homes.
- Life ting generation data indicate a resort hotel employs 1.7 people per room. (ITE Land Use Code 330, Resort Hotel, AM & PM Peak Hour of Generator, Trips per Empl. Vs. Trips per Room). The project applicant will be providing 306 employees to facilitate the entire project operation. Staffing will be provided 7 days per week, 24 hours per day. For Phase 1, 145 employees will be provided Allowing for a 5 day work week, 104 employees will be scheduled to work each day. The employees will be scheduled to work during one of three work shifts, atthough specific work hours (i.e., arrival/departure times) will vary depending specific job requirements. It is amticipated that 52 employees will work five day shift, 39 employees will work
- atthough specific work hours (i.e., arrival/departure times) will vary depending specific job requirements. It is anticipated that 52 employees will work the day shift, 39 employees will work the swing shift and 13 employees will work the night shift.

 5. All non-management employees, approximately 90% of the total number of employees, are required to use the employee shuttle. Not all employees will arrive within the same one-hour period. Employee arrivals and departures are expected to be distributed over a 2 to 3 hour period. During the AM weekday, 32% of the day shift employees were assumed to arrive and 60% of the night shift employees were assumed to depart. During the PM weekday, 37% of the day shift were assumed to depart and 37% of the swing shift employees were assumed to arrive. For the Saturday peak hour, 45% of the day shift employees were assumed to the expert and 45% of the swing shift employees were assumed to arrive.

 6. Section B shows the number of guest vehicle trips that will be made by shuttle. These trips consist of guest day trips and guest trips to and from the airport. One-quarter of the guests are assumed to make an off-site trip per day: 21 round trips, 42 one-way trips. 20% of the day trips would be made via shuttle: 4 round trips, 8 one-way trips. 5 arrivals and 5 departures via the Monterey Airport are assumed to excur via the shuttle bus each day. 8 day trips + 10 airport trips = 18 total trip reduction.

 7. The off-site day trips would be served in 2 shuttle trips: 6 people per shuttle, 8 people total, 4 guest parties. Two round trips, per day by the shuttle between the resort and the airport are assumed. 4 shuttle trips for guest day trips + 8 guest related shuttle trips. It was assumed that the employee shuttle would made 3 round trips per shift change held-ween the project site and Soledad each day. or 18 total trips and average assumed to see that the employee shuttle would made 3 round trips per shift change held-ween the project site and Soledad each day. or 18 total trips
- between the project site and Soledad each day, or 18 total trips per day.

Paraiso Hot Springs, Monterey County Project Trip Generation Phase 2

					EAK HO	UR	PM PE	AK HC	UR	SAT. PI	EAK H	OUR
	TRIP RATE	INDEPENDENT	AVG. DAILY	PEAK			TOTAL PEAK			TOTAL PEAK		
GROSS TRIP GENERATION RATES	SOURCE	SIZE	TRIPS 1	HOUR	IN	OUT	HOUR	IN	OUT	HOUR	IN	OL
Proposed Project												
Resort Hotel ²	ITE 000	0-0								Barrier I		- 3
	ITE 330	Per Occupied Room	6.13	0.37	72%	28%	0.49	43%	57%	1.23	50%	
Residential (Single-Family Detached) 3	ITE 210	Per Unit	9.57	0.75	25%	75%	1.01	63%		0.93		
Recreational Homes 3	ITE 260	Per Unit	3.16	0.16	67%	33%	0.26	41%	59%	0.36	48%	52
Hotel Employee		Per Employee	2.50			-	-	-	-		-	-
Previous Use												
Day Guests		Per Day Guest	5.00	0.4	94%	6%	0.4	6%	94%	0.2	50%	50
Visitor Units and Campground/Recreational Vehicle Park		Per Occupied Unit	6.13	0.2	42%	58%	0.37	69%		0.74		
	TRIP				EAK HO	UR	PM PE	AK HC	UR	SAT. PE	EAK H	OUI
			AVG.	TOTAL			TOTAL			TOTAL		
그녀, 그렇게 하셨습니다. 하는 이 이 사람이 되었다.	RATE	PROJECT	DAILY	PEAK	10.00		PEAK	1.5		PEAK		
	SOURCE	SIZE	TRIPS 1	HOUR	IN	OUT	HOUR	IN	OUT	HOUR	IN	0
ROJECT GROSS TRIP GENERATION			1 - 12									
Resort Hotel (100% Occupied)	ITE 330	77 Units	472	28	20	8	38	16	22	95	48	
Residential Homes (100% Occupied)	ITE 210	9 Units	86	7	2	5	9	6	3	8	4	
Recreational Homes (100% Occupied)	ITE 260	32 Units	101	5	3	2	8	3	5	12	6	
Gross Total		118 Units	659	40	25	15	55	25	30	115	58	
Net Total Assuming 10% Internal Reduction between Residential	and Resort		593	36	23	14	50	23	27	104	52	
MPI OVERE!										- 4		_
MPLOYEES ⁴												
Employees per room	1.7											
Total Payroll Employees (1.7 x 118)	201											
Workweek reduction factor (5 day work week, 5/7)	0.71				3)							
Employees per day (all shifts)	144											
RIP REDUCTION STRATEGIES	Tatal	Ch. We		-	V-10 15		1					_
	Total	Shuttle	1									
A. Employee Shuttle Trip Reduction	Employees	Employees				1						
Employee Shuttle (Weekday Day)	72			20	20	0	24	. 0	24			
Employee Shuttle (Weekday Swing)	54						18	18	0			
Employee Shuttle (Weekday Night)	18	16 Employees		10	0	10						
Employee Shuttle (Weekend Day)	72	65 Employees								29	0	
Employee Shuttle (Weekend Swing)	54									22	22	
Employee Shuttle (Weekend Night)	18											
Total Employee Shuttle Related Trip Reduction	144		325	30	20	10	42	19	24	E4	22	F11 (P010 ())
Total Employee Criatio Notated Trip Nedaddon	177	130 Linployees	323	30	20	10	42	18	24	51	22	
B. Guest Vehicle Trip Reduction ⁸			28	1	0	1	2	1	1	6	3	
- [-] 이번 100 100 100 100 100 100 100 100 100 10						1						
C. Shuttle Trips Added						1						
Employee Shuttles			24	4	2	2	4	2	2	4	2	
Guest Shuttle			10	1	0	1	2	1	1	4	2	
Total Shuttle Trips			34	5	2	3	6	3	3	8	4	
					_					·	- 7	
Proposed Project Shuttle Related Trip Reduction Subtotal			319	26	18	8	38	16	22	49	21	
ET PROJECT TRIP GENERATION			1	2.5				114 3	- 1			
Proposed Net Project Trips Subtotal - 100% Occupancy			274	10	4	6	12	7	5	54	31	
Proposed Net Project Trips Subtotal - 70% Occupancy			192	7	3	4	8	5	3	38	22	
REVIOUS PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION (I	PRE-2005)		100		111		YA.J.	Til		4		
Visitor Units and Campground/Recreational Vehicle Park	2005j	84 Hoir-	274	40		_			_			
		61 Units	374	12	- 5	7	23	16	7	45	27	
Day Guests		5 Day Guests	25	2	2	0	2	0	2	8	4	
Previous Project Subtotal (when in full operation pre-2005)	5 0		399	14	7	7	25	16	9	53	31	
XISTING PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION			20	2	1	1	2	1	1	2	1	
PO IECT NET TRIP GENERATION APONT PRESSOUR (POR SOCIETY)								9		460.0		_
ROJECT NET TRIP GENERATION ABOVE <u>PREVIOUS</u> (PRE-2005) USE MAXIMUM - PROPOSED PROJECT 100% OCCUPIED			444							4.1		
AVERAGE - PROPOSED PROJECT 70% OCCUPIED			-125 -207	-4 -7	-3 -4	-1 -3	-13 -17	-9 -11	-4 -6	-15	-9	
					*					*******************		
ROJECT NET TRIP GENERATION ABOVE EXISTING USE												
MAXIMUM - PROPOSED PROJECT 100% OCCUPIED			254	8	3	5	10	6	4	52	30	
							10	0	4	5 2	30	
AVERAGE - PROPOSED PROJECT 70% OCCUPIED			172	5	2	3	6	4	2	36	21	

- Notes:

 1. ITE daily rates are not available for Resort Hotel. Daily traffic is estimated based on 8% of the daily trips occuring in the evening peak hour.

 2. Resort hotel gross trip generation rates are based on *Trip Generation*, 8th Edition, published by Institute of Transportation Engineers, 2008.

 Land Use code 330, Resort Hotel. This trip generation rate includes trips generated by all facilities and activities at the site associated with the hotel, such as restaurants, gift shops, conference facilities and recreational facilities.

 3. Residential and Recreational Homes gross trip generation rates are based on *Trip Generation*, 8th Edition, published by Institute of Transportation Engineers, 2008.
- Land Use code 260, Recreational Homes.
- Land Use code 250, recreational nomes.

 4. ITE trip generation data indicate a resort hotel employs 1.7 people per room. (ITE Land Use Code 330, Resort Hotel, AM & PM Peak Hour of Generator, Trips per Empl. Vs. Trips per Room). The project applicant will be providing 308 employees to facilitate the entire project operation. Staffing will be provided 7 days per week, 24 hours per day. For Phase 2, 201 employees will be provided. Allowing for a 5 day work week, 144 employees will be scheduled to work each day. The employees will be scheduled to work during one of three work shifts, although specific work hours (i.e., arrival/departure times) will vary depending specific job requirements. It is anticipated that 72 employees will work the day shift, 54 employees will work the day shift, 54 employees will work the swing shift and 18 employees will work the night shift.
- The swing smit and to employees will work the night shirt.

 All non-management employees, approximately 90% of the total number of employees, are required to use the employee shuttle. Not all employees will arrive within the same one-hour period. Employee arrivals and departures are expected to be distributed over a 2 to 3 hour period. During the AM weekday, 32% of the of the day shift employees were assumed to arrive and 80% of the night shift employees were assumed to depart. During the PM weekday, 37% of the day shift were assumed to depart and 37% of the swing shift the property of the day shift employees were assumed to arrive.

 8. Section B shows the number of guest vehicle trips that will be made by shuttle. These trips consist of guest day trips and guest trips to and from the airport.
- Section B shows the number or guest vehicle trips that will be made by shuttle. I nese trips consist or guest day trips and guest trips to and from the airport.
 One-quarter of the guests are assumed to make an off-site trip per day: 30 round trips, 80 one-way trips. 20% of the day trips would be made via shuttle: 6 round trips, 12 one-way trips. 8 arrivals and 8 departures via the Monterey Airport are assumed to occur via the shuttle bus each day. 12 day trips + 18 airport trips = 28 total trip reduction.
 The off-site day trips would be served in 2 shuttle trips: 6 people per shuttle, 12 people total, 6 guest parties. Three round trips per day by the shuttle between the resort and the airport are assumed. 4 shuttle trips for guest day trips + 8 airport trips = 10 guest related shuttle trips. It was assumed that the employee shuttle would made 4 round trips per shift change between the project site and Soledad each day, or 24 total trips per day.

EXHIBIT 2B REVISED EXHIBIT 6B PROJECT PHASE 2 TRIP GENERATION

Paraiso Hot Springs, Monterey County Project Trip Generation Phase 3

				AM P	EAK HO	UR	PM PE	AK HC	UR :	SAT. PI	EAK H	OUR
	TRIP		AVG.	TOTAL			TOTAL			TOTAL		
	RATE	INDEPENDENT	DAILY	PEAK			PEAK			PEAK		
	SOURCE	SIZE	TRIPS 1	HOUR	IN	OUT	HOUR	IN	OUT	HOUR	IN	OL
GROSS TRIP GENERATION RATES												
Proposed Project												
Resort Hotel ² Residential (Single-Family Detached) ³	ITE 330	Per Occupied Room	6.13	0.37	72%	28%	0.49	43%	57%	1.23	50%	
Recreational Homes 3	ITE 210	Per Unit	9.57	0.75	25%	75%	1.01	63%	37%	0.93		
	ITE 260	Per Unit	3.16	0.16	67%	33%	0.26	41%		0.36	48%	
Hotel Employee		Per Employee	2.50	-	•	•	•	-	•	-	-	-
Previous Use		D D Oi	5.00		0.404							
Day Guests Visitor Units and Campground/Recreational Vehicle Park		Per Day Guest	5.00	0.4	94%	6%	0.4	6%	94%	0.2		
Visitor Offits and Campground Redeadonal Vehicle Park		Per Occupied Unit	6.13	0.2	42%	58%	0.37	69%	31%	0.74	60%	40
				3	EAK HO	UR	PM PE	AK HC	UR	SAT. PE	AK H	OUF
	TRIP		AVG.	TOTAL			TOTAL			TOTAL		
	RATE	PROJECT	DAILY	PEAK		1.0	PEAK			PEAK		
	SOURCE	SIZE	TRIPS 1	HOUR	IN	OUT	HOUR	IN	OUT	HOUR	IN	OL
PROJECT GROSS TRIP GENERATION	1 3 1 3 2											
Resort Hotel (100% Occupied)	ITE 330		564	34	24	10	45	19	26	113	57	
Residential Homes (100% Occupied)	ITE 210		124	10	3	7	13	8	5	12	6	
Recreational Homes (100% Occupied)	ITE 260		145	7	5	2	12	5	7	17	8	
Gross Total Net Total Assuming 10% Internal Reduction between Residential a	nd Resort	151 Units	834 750	51 46	32 29	19 17	70 63	32 29	38 34	142 128	71 64	
			,,,,							120	04	
MPLOYEES ⁴			•									
Employees per room	1.7		13.7									
Total Payroll Employees (1.7 x 151)	257											
Workweek reduction factor (5 day work week, 5/7)	0.71											
Employees per day (all shifts)	184		14.14									
			-					_	-			_
RIP REDUCTION STRATEGIES	Total	Shuttle										
A. Employee Shuttle Trip Reduction ⁵	Employees	Employees										
Employee Shuttle (Weekday Day)	92			26	26	0	31	0	31			
Employee Shuttle (Weekday Swing)	69						23	23	0			
Employee Shuttle (Weekday Night)	23			12	0	12		20				
Employee Shuttle (Weekend Day)	92		-				******************		-	37	0	
Employee Shuttle (Weekend Swing)	69									28	28	
Employee Shuttle (Weekend Night)	23									. 20	20	
Total Employee Shuttle Related Trip Reduction	184	*****************************	415	38	26	12	54	23	31	65	28	******************
		100 Employees	7.0	- 00	20	12	•	20	31	05	20	
B. Guest Vehicle Trip Reduction ⁸			36	1	0	1	2	1	1	8	4	
C. Shuttle Trips Added												
Employee Shuttles			30	4	2	2	4	2	2	4		
Guest Shuttle			14	1	ō	1	2	1	1	4	2	
Total Shuttle Trips			44	5	2	3	6	3	3	8	4	
Total Studio Tripo				,	_	,	·	3	,		•	
Proposed Project Shuttle Related Trip Reduction Subtotal ET PROJECT TRIP GENERATION			407	34	24	10	50	21	29	65	28	_
Proposed Net Project Trips Subtotal - 100% Occupancy			343	12	5	7	40		5		-	
Proposed Net Project Trips Subtotal - 100% Occupancy			240	9	3	5	13 9	- 8 6	3	63	36	
Proposed Net Project Trips Subtotal - 10% Occupancy			240	9	•	5	9		3	44	25	
REVIOUS PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION (P	DE 2005)				No el		-1-18	1	13014			-
	NE-2003)	61 Units	374	40	-			40				
Visitor Units and Campground/Recreational Vehicle Park Day Guests				12	5	7	23	16	7	45	27	
		5 Day Guests	25 399	2	7	7	2	0	2		4	
Previous Project Subtotal (when in full operation pre-2005)			399	14	316		25	16	9	53	31	
XISTING PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION			20	. 2	1,	1	2	1	1	2	1	
	No. 1 III St.				10,55			TIME				_
ROJECT NET TRIP GENERATION ABOVE PREVIOUS (PRE-2005) USE						_			- 1	000		
MAXIMUM - PROPOSED PROJECT 100% OCCUPIED AVERAGE - PROPOSED PROJECT 70% OCCUPIED			-56 -159	-2 -5	-2 -4	0 -2	-12 -16	-8 -10	-4 -6	10 -9	-6	
											-,	
ROJECT NET TRIP GENERATION ABOVE EXISTING USE						i			1			
MAXIMUM - PROPOSED PROJECT 100% OCCUPIED AVERAGE - PROPOSED PROJECT 70% OCCUPIED			323	10 7	4	6	11	7	4	61	35	

- 1. ITE daily rates are not available for Resort Hotel. Daily traffic is estimated based on 8% of the daily trips occuring in the evening peak hour.

 2. Resort hotel gross trip generation rates are based on *Trip Generation*, 8th Edition, published by Institute of Transportation Engineers, 2008.

 Land Use code 330, Resort Hotel. This trip generation rate includes trips generated by all facilities and activites at the site associated with the hotel, such as restaurants, gift shops, conference facilities and recreational facilities.
- Residential and Recreational Homes gross trip generation rates are based on Trip Generation, 8th Edition, published by Institute of Transportation Engineers, 2008. Land Use code 260, Recreational Homes.
- 4. ITE trip generation data indicate a resort hotel employs 1.7 people per room. (ITE Land Use Code 330, Resort Hotel, AM & PM Peak Hour of Generator, Trips per Empl. Vs. Trips per Room). The project applicant will be providing 306 employees to facilitate the entire project operation. Staffing will be provided 7 days per week, 24 hours per day. For Phase 3, 257 employees will be provided. Allowing for a 5 day work week, 184 employees will be scheduled to work each day. The employees will be scheduled to work downs (i.e., arrival/departure times) will vary depending specific job requirements. It is anticipated that 92 employees will work the day shift, 99 employees will work
- although specific work hours (i.e., arrival/departure times) will vary depending specific job requirements. It is anticipated that 92 employees will work the day shift, 69 employees will work the swing shift and 21 employees will work the night shift.

 5. All non-management employees, approximately 90% of the total number of employees, are required to use the employee shuttle. Not all employees will arrive within the same one-hour period. Employee arrivals and departures are expected to be distributed over a 2 to 3 hour period. During the AM weekday, 32% of the of the day shift employees were assumed to arrive and 60% of the night shift employees were assumed to depart. During the PM weekday, 37% of the day shift were assumed to depart and 37% of the swing shift employees were assumed to arrive. For the Saturday peak hour, 45% of the day shift employees were assumed to depart and 45% of the swing shift employees were assumed to arrive.

 6. Section B shows the number of guest vehicle trips that will be made by shuttle. These trips consist of guest day trips and guest trips to and from the airport. One-quarter of the guests are assumed to make an off-site trip per day: 38 round trips, 76 one-way trips. 20% of the day trips would be made via shuttle: 8 round trips, 16 one-way trips. 10 arrivals and 10 departures via the Monterey Airport are assumed to occur via the shuttle bus each day. 16 day trips + 20 airport trips = 36 total trip reduction.

 7. The off-site day trips would be served in 3 shuttle trips: 6 people per shuttle, 16 people total, 8 guest parties. Four round trips per day by the shuttle between the resort and the airport are assumed. 6 shuttle trips for guest day trips + 8 airport trips = 14 guest related shuttle trips. It was assumed that the employee shuttle would made 5 round trips per shift change between the project site and Soledad each day, or 30 total trips per day.
- between the project site and Soledad each day, or 30 total trips per day.

EXHIBIT 2C REVISED EXHIBIT 6C PROJECT PHASE 3 TRIP GENERATION

Paraiso Hot Springs, Monterey County Project Trip Generation Phase 4 (Project Buildout)

	143041149		3 7 1807	AM P	EAK HO	UR	PM PE	AK HC	UR	SAT. P	AK H	OUR
	TRIP	***************************************	AVG.	TOTAL			TOTAL			TOTAL		
	SOURCE	INDEPENDENT SIZE	DAILY TRIPS 1	PEAK HOUR	INI .	OUT	PEAK HOUR	INI	OUT	PEAK	16.1	011
GROSS TRIP GENERATION RATES	SOURCE	SIZE	IRIPS	HOUR	IN	OUT	HOUR	IN	OUT	HOUR	IN	OU.
Proposed Project			10.5%									
Resort Hotel ²	ITE 330	Per Occupied Room	6.13	0.37	72%	28%	0.49	43%	57%	1.23	50%	50
Residential (Single-Family Detached) 3	ITE 210	Per Unit	9.57	0.75	25%	75%	1.01		37%		53%	
Recreational Homes 3	ITE 260	Per Unit	3.16	0.16	67%	33%	0.26	41%	59%		48%	
Hotel Employee		Per Employee	2.50							-	-	-
Previous Use												
Day Guests		Per Day Guest	5.00	0.4	94%	6%	0.4	6%	94%	0.2	50%	509
Visitor Units and Campground/Recreational Vehicle Park		Per Occupied Unit	6.13	0.2	42%	58%	0.37	69%	31%	0.74	60%	
		L. M. Stripperson		AM P	EAK HO	UR	PM PE	AK HC	UR	SAT. PE	AK H	OUR
	TRIP		AVG.	TOTAL			TOTAL			TOTAL		
	RATE	PROJECT	DAILY	PEAK			PEAK			PEAK		
	SOURCE	SIZE	TRIPS 1	HOUR	IN	OUT	HOUR	1N	OUT	HOUR	IN	OUT
PROJECT GROSS TRIP GENERATION			TO HOW									
Resort Hotel (100% Occupied)	ITE 330	103 Units	631	38	27	11	50	22	28	127	64	6
Residential Homes (100% Occupied)	ITE 210	17 Units	163	13	3	10	17	11	6	16	8	
Recreational Homes (100% Occupied)	ITE 260	60 Units	190	10	7	3	16	7	9	22	11	1
Gross Total Net Total Assuming 10% Internal Reduction between Residential a	and Decort	180 Units	984 885	61 55	37 33	24 22	83	40 36	43	165	83	
Test Total Asserting Toy Internal Reduction Setween Residential of	III Neson		885	33	33	- 22	75	30	39	149	75	7.
EMPLOYEES ⁴												
Employees per room	1.7											
Total Payroll Employees (1.7 x 180)	306											
Workweek reduction factor (5 day work week, 5/7)	0.71											
Employees per day (all shifts)	218											
								100		1 1 1 1 1		-
TRIP REDUCTION STRATEGIES	Total	Shuttle										
A. Employee Shuttle Trip Reduction ⁵	Employees	Employees										
Employee Shuttle (Weekday Day)	109	98 Employees		31	31	0	36	0	36			
Employee Shuttle (Weekday Swing)	82	74 Employees					27	27	0			
Employee Shuttle (Weekday Night)	27	24 Employees		15	0	15						
Employee Shuttle (Weekend Day)	109	98 Employees	1			1				44	0	44
Employee Shuttle (Weekend Swing)	82	74 Employees								33	33	
Employee Shuttle (Weekend Night)	27											
Total Employee Shuttle Related Trip Reduction	218		492	46	31	15	. 63	27	36	77	33	44
B. Guest Vehicle Trip Reduction ⁶	***************************************		40	1	0	1	2	2	0	10	5	
C. Shuttle Trips Added ⁷												
Employee Shuttles			20				11.					
Guest Shuttle			36 16	4	2	2	4	2	2	4	2	
Total Shuttle Trips					0	1	2	1	1	4	2	2
Total Strutte Trips			52	5	2	3	6	3	3	8	4	•
Proposed Project Shuttle Related Trip Reduction Subtotal			480	42	29	13	60	26	33	79	34	45
NET PROJECT TRIP GENERATION								87.1		1117,15		
Proposed Net Project Trips Subtotal - 100% Occupancy			406	12	4	9	15	10	6	69	40	29
Proposed Net Project Trips Subtotal - 70% Occupancy			284	9	3	6	11	7	4	48	28	20
PREVIOUS PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION (F	PRF-2005\						000				MŽ.	7
Visitor Units and Campground/Recreational Vehicle Park		61 Units	374	12	5	7	23	16	7	45	27	
Day Guests		5 Day Guests	25	2	2	ó	23	0			27	18
Previous Project Subtotal (when in full operation pre-2005)		J Day Guesis	399	14	7	7	25	16	2 9	8 53	31	22
					4					2 1		1 8
EXISTING PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION			20	2	1	1	2	1	1	2	1	
PROJECT NET TRIP GENERATION ABOVE <u>PREVIOUS</u> (PRE-2005) USE	Te V					and the same of th				3, 400	T. P.	
MAXIMUM - PROPOSED PROJECT 100% OCCUPIED			7	-2	-3	2	-10	-6	-3	18	9	7
AVERAGE - PROPOSED PROJECT 70% OCCUPIED			-115	-5	-4	-1	-14	-9	-5	-5	-3	-2
PROJECT NET TRIP GENERATION ABOVE EXISTING USE												
			1									
MAXIMUM - PROPOSED PROJECT 100% OCCUPIED AVERAGE - PROPOSED PROJECT 70% OCCUPIED			386 264	10 7	3	8	13	9	5	67	39	28

- 1. ITE daily rates are not available for Resort Hotel. Daily traffic is estimated based on 8% of the daily trips occuring in the evening peak hour.

 2. Resort hotel gross trip generation rates are based on *Trip Generation*, 8th Edition, published by Institute of Transportation Engineers, 2008.

 Land Use code 330, Resort Hotel. This trip generation rate includes trips generated by all facilities and activites at the site associated with the hotel, such as restaurants, gift shops, conference facilities and recreational facilities.
- 3. Residential and Recreational Homes gross trip generation rates are based on *Trip Generation*, 8th Edition, published by Institute of Transportation Engineers, 2008. Land Use code 260, Recreational Homes.
- Land Use code 250, recreation an indicate a resort hotel employs 1.7 people per room. (ITE Land Use Code 330, Resort Hotel, AM & PM Peak Hour of Generator, Trips per Empl. Vs. Trips per Room). The project applicant will be providing 306 employees to facilitate the entire project operation at project buildout. Staffing will be provided 7 days per week, 24 hours per day. Allowing for a 5 day work week, 218 employees will be scheduled to work each day. The employees will be scheduled to work during one of three work shifts, atthough specific work hours (i.e., arrival/departure times) will vary depending specific job requirements. It is anticipated that 109 employees will work the day shift, 82 employees will work
- although specific work hours (i.e., arrival/departure times) will vary depending specific job requirements. It is anticipated that 109 employees will work the day shift, 82 employees will work the swing shift and 27 employees will work the night shift.

 All non-management employees, approximately 90% of the total number of employees, are required to use the employee shuttle. Not all employees will arrive within the same one-hour period. Employee arrivals and departures are expected to be distributed over a 2 to 3 hour period. During the AM weekday, 32% of the of the day shift employees were assumed to arrive and 60% of the night shift employees were assumed to depart. During the PM weekday, 37% of the day shift were assumed to depart and 37% of the swing shift were assumed to depart and 45% of the swing shift employees were assumed to arrive.

 Bestiman Saturday peak hour, 45% of the day shift employees were assumed to depart and 45% of the swing shift employees were assumed to arrive.

 Bestiman Saturday peak hour, 45% of the day shift employees were assumed to depart and 45% of the swing shift employees were assumed to arrive.

 Bestiman Saturday peak hour, 45% of the day shift employees were assumed to arrive.

 Bestiman Saturday peak hour, 45% of the day shift employees were assumed to arrive assumed to arrive.

 Bestiman Saturday peak hour, 45% of the swing shift employees were assumed to arrive.

 Bestiman Saturday peak hour, 45% of the day shift were assumed to arrive assumed to arrive.

 Bestiman Saturday peak hour, 45% of the day shift were assumed to arrive assumed to arrive.

 Bestiman Saturday peak hour, 45% of the day shift employees were assumed to arrive assumed to arrive assumed to arrive.

 Bestiman Saturday peak hour, 45% of the day shift employees were assumed to arrive a

Paraiso Hot Springs, Monterey County Project Trip Generation

				AMP	EAK HO	UR	- PM PE	AK HC	UR	SAT. PE	AK H	OUR
	TRIP		AVG.	TOTAL			TOTAL			TOTAL.		
	RATE	INDEPENDENT	DAILY	PEAK			PEAK			PEAK		
spring the property of the state of the stat	SOURCE	SIZE	TRIPS 1	HOUR	IN	OUT	HOUR	IN	OUT	HOUR	IN	OU
GROSS TRIP GENERATION RATES	The same		1.1	70.00		_[111 11 7 7 7					1111
Resort Hotel ²	ITE 330	Per Occupied Room	6.13	0.37	72%	28%	0.49	43%	57%	1.23	50%	50
Residential (Single-Family Detached) 3	ITE 210	Per Unit	9.57	0.75	25%	75%	1.01	63%	37%	0.94		
Recreational Homes 3	ITE 260	Per Unit	3.16	0.16	67%	33%	0.26				48%	
Day Guests		Per Day Guest	5.00	0.4	94%	6%	0.4	6%		0.2		
Hotel Employee		Per Employee	4.50	0.4	73%	27%	0.36	44%			60%	
Existing Visitor Units and Campground/Recreational Vehicle Park		Per Occupied Unit	4.72	0.2	42%	58%		69%			60%	
				AM P	EAK HO	UR	PM PE	AK HC	UR	SAT. PE	AK H	OUR
	TRIP		AVG.	TOTAL			TOTAL			TOTAL		
	RATE	PROJECT	DAILY	PEAK			PEAK			PEAK		
스탠딩스 마르를 즐겁는 걸음을 내내 다 가는 모든 이 그는 데 모든 나를	SOURCE	SIZE	TRIPS 1	HOUR	IN	OUT	HOUR	IN	OUT	HOUR	IN	ΟU
PROJECT GROSS TRIP GENERATION		anned self-		6017	101100			2.1		110011		
Resort Hotel (100% Occupied)	ITE 330	92 Units	564	34	24	10	45	19	26	113	57	
Residential Homes (100% Occupied)	ITE 210		124	10	3	7	13	8	5		6	
Recreational Homes (100% Occupied)	ITE 260		145	7	5				7			
Gross Total	11 = 200	151 Units	834	51	32	19		5 32		17	8	-
		151 Units								142	71	
Net Total Assuming 10% Internal Reduction between Residential a	na Kesort		750	46	29	17	63	29	34	128	64	(
TRIP REDUCTION STRATEGIES												
A. Employee Shuttle ⁴	- J J F.	poly of the party		- 60			F 193					
Employee Shuttle (Weekday Day)	345,51	50 Employees	100	20	15	5	18	8	10			
Employee Shuttle (Weekday Night)	7	13 Employees		5	2	3	5	4	1			
Employee Shuttle (Weekend Day)		67 Employees					11.00%			27	16	
Employee Shuttle (Weekend Night)		17 Employees	- "	3 61 416					-	7	3	
Total Employee Shuttle Related Trip Reduction			290	25	17	8	23	12	11	34	19	
										•		
B. Guest Shuttle (20% of Guests)	3		55	2	1	0	. 4	1	3	16	8	
Proposed Project Shuttle Related Trip Reduction Subtotal			345	27	19	9		13	14	50	27	2
Proposed Net Project Trips Subtotal - 100% Occupancy	1		405	19	10	9	35	16	20	78	37	-
Proposed Net Project Trips Subtotal - 70% Occupancy			284	13	7	6	25	11	14	55	26	
HISTORIC PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION	1				5.2 Y.		l fight					
Historic Visitor Units and Campground/Recreational Vehicle Park		61 Units	200	12	1 (2	7		40	_		0-	
		0.0	288		5		23	16	7	45	27	
Day Guests	8 151	5 Day Guests	25	2	2	. 0	2	0	2		4	
Historic Project Subtotal (when in full operation)	9 4		313	14	7	7	25	16	9	53	31	
EXISTING PARAISO HOT SPRINGS PROJECT TRAFFIC GENERATION			20	2	1	1	2	1	1	2	1	
MAXIMUM PROJECT NET TRIP GENERATION ABOVE HISTORIC - 100% O	CCUPANCY		92	5	. 3	2	10	0	11	- 25	6	
VERAGE PROJECT NET TRIP GENERATION ABOVE HISTORIC - 70% OC	CUPANCY		0	0	0	0	0	0	5	2	0	
MAXIMUM PROJECT NET TRIP GENERATION ABOVE EXISTING - 100% O	CCUPANCY		385	17	9	8	33	15	19	76	36	
AVERAGE PROJECT NET TRIP GENERATION ABOVE EXISTING - 70% OC	CUPANCY		264	11	6	5	23	10	13	53	25	

^{1.} ITE daily rates are not available for Resort Hotel. Daily traffic is estimated based on 8% of the daily trips occuring in the evening peak hour.

2. Resort hotel gross trip generation rates are based on Trip Generation, 7th Edition, published by Institute of Transportation Engineers, 2003.

Land Use code 330, Resort Hotel. This trip generation rate includes trips generated by all facilities and activites at the site associated with the hotel, such as restaurants, gift shops, conference facilities and recreational facilities.

git shops, combenies activities and recreational arctifues.

3. Residential and Recreational Homes gross trip generation rates are based on *Trip Generation*, 7th Edition, published by Institute of Transportation Engineers, 2003. Land Use code 260, Recreational Homes.

4. For Phase 3, 50 people are anticipated to be employed during the weekday day shift, 13 people during the weekday night shift, 67 people during the weekend day shift and 17 people during the weekend night shift. All non-management employees, approximately 90% of the employees, will be required to use the employee shuttle. This information is provided by the project applicant.

ARROYO SECO/CLARK ROAD INTERSECTION SAFETY ANALYSIS (PROJECT BUILDOUT)

		Pred	Predicted Crashes	es			Expected Be	Expected Before Period	Predicted	cted	Expected
					Actual		Accident	Accident Frequency	Accidents	ents	Accident
	1991-	1991- 2006-			Accidents		(Accidents	Accidents/20 years)	Future ADT	Base ADT	Frequency
Intersection	2005	2010	TOTAL	Percentage	1991-2010	Weights	Total		(Nbf)	(Npb)	(20 years)
Arroyo Seco/Clark Road		2.158 0.448	2.606	100%	0	0.415	1.083		0.331	0.138	2.597
Avg. Per Year	0.144	0.144 0.090 0.130	0.130			1	0.054				0.130

Exhibit 5 - Arroyo Seco/Clark Road Accident Frequency Prediction Calculations

	ARROYO SECO/CLARK ROAD TRAFFIC VOLUMES	D TRAFFIC VOLUMES				
		PREVIOUS (BEFORE HOT SPRINGS CLOSURE)	EXISTING			PROJECT
ANNUAL AVE TRIP GEN (DAY GUESTS FOR 6 MOS-EXISTING, 70% ANNUAL AVE HOTEL OCCUPANCY) INTERSÉCTION LEG	NUAL AVE HOTEL OCCUPANCY)	301	20	AADT		284
Arroyo Seco (Entering Vehicles Per Day) Clark Road (Entering Vehicles Per Day)		1300	1710			1829
	ACCIDENT FREQUENCY CALCULATIONS	CALCULATIONS				
			PREDICTED ACCIDENT FREQUENCY		E) ACCIDEN	EXPECTED ACCIDENT ERFOLIENCY
INTERSECTION		(1991-2005)	(2006-2010)	(1991-2010)	(1991-2010)	PHASE 4
EXISTING INTERSECTION A Existing		0.144	060.0	0.130	0.054	0.130
TOTAL	ACCIDENTS PREDICTED IN 1 YEAR ACCIDENTS PREDICTED IN 3 YEARS ACCIDENTS PREDICTED IN 5 YEARS	0.144 0.432 0.720	0.090 0.270 0.450	0.130	0.054 0.162 0.270	0.130 0.390 0.650
	NO. OF YEARS FOR ONE ACCIDENT ACCIDENTS PREDICTED DURING PERIOD ACCIDENTS EXPECTED 1991-2010	2.160	11 0.450	8 2.610	108	80
	ACCIDENTS PREDICTED 1991-2010 ACTUAL NUMBER 1991-2010 LAST 20 YEARS - NO. OF YEARS PER ACCIDENT: PREDICTED EXPECTED YEARS DED ACTUAL ACCIDENT 1991-2010		2.6			
			>			

ROADWAY	DAILY ENTERING VEHICLES	DAILY ENTERING VEHICLES	DAILY ENTERING VEHICLES	ERING
	1342	1720	1958	
	ANNOAL	ANNUAL	ANNUAL	֝֟֝֝֝֟֝֝֝֝֟֝֝֝֝֝֝֝ ֓֞֞֞֞֞֞֞֞֞֞֞֞֞֞֞֞֞֞֞֞
12	489,830	ENTERING VEHICLES 627,800	EN LEKING VEHICLES	EHICLES 0
	Ä	ENTERING VEHICLES IN 20 YRS 10,486,450		
		PREVIOUS ACCIDENT RATE	EXPECTED	
		(20-YEAR PERIOD)	RATE	
		(ACCIDENTS	(ACCIDENTS	NTS
		PER MILLION	PER MILLION	NOI
		VEHICLES ENTERING THE INTERSECTION)	VEHICLES ENTERING THE INTERSECTION)	TERING ECTION)
	CALCULATED ACCIDENT RATE	00'0	0.78	
	STATEWIDE AVERAGE RATE	0.20	0.20	
	CALCULATED RATE			
	OF AVG RATE	OF AVG RATE 0%	91%	

PARAISO SPRINGS ROAD SAFETY ANALYSIS (PROJECT BUILDOUT)

	31	Predi	Predicted Crashes	Sa	E 1		Expected Bo	Expected Before Period	Predicted	cted	Expected
	7.44				Actual		Accident	Accident Frequency	Accidents	ents	Accident
11 20	1991-	-9002			Accidents		(Accidents	(Accidents/20 years)	Future ADT	Base ADT	Frequency
Segment	2005	2010	TOTAL	Percentage	1991-2010	Weights	Total	By Segment	(Npt)	(dqN)	(20 years)
Α	0.495	0.055	0.55	14%	0			0.395	0.034	0.027	0.497
8	1.005	60.0	1.095	27%	7			0.786	0.07	0.054	1.020
O	0.36	0.025	0.385	10%	0	- 50		0.277	0.025	0.019	0.364
0	0.48	0.025	0.505	12%	0			0.363	0.034	0.025	0.493
ŭ	0.39	0.01	0.4	10%	1			0.287	0.028	0.02	0.402
F	1.065	0.05	1.115	28%	0			0.801	0.075	0.056	1.073
Total	3.795	0.255	4.05	100%	2	0.443	2.909	2.909	0.266	0.201	3.849
Avg. Per Year	q.253	0.051	0.203					0.145			0.193

CLARK ROAD SAFETY ANALYSIS (PROJECT BUILDOUT)

					Carried Health						
		Pred	Predicted Crashes	es			Expected Be	Expected Before Period	Predicted	sted	Expected
					Actual		Accident P	Accident Frequency	Accidents	ents	Accident
	1991-	1991- 2006-		3	Accidents		(Accidents	Accidents/20 years)	Future ADT	Base ADT	Frequency
Segment	2005	2010	TOTAL	Percentage	1991-2010	Weights	Total	By Segment	(Nbf)	(dqN)	(20 years)
Clark Road	0.465	0.465 0.035	0.500	100%	0	998.0	0.433	0.433	0.118	0.025	2.043
Avg. Per Year	g.031	G.031 0.007 0.025	0.025	par the second	0 1	-		0.022			0.102

Exhibit 8 - Paraiso Springs Road Accident Frequency Prediction Crash Modification Factors

	(BEFORE HOT					
	SPRINGS CLOSURE)	EXISTING (2009-2010)	PROJECT PHASE 1	PROJECT PHASE 2	PROJECT PHASE 3	PROJECT PHASE 4
<	1.01	1.01	1.01	1.01	1.01	1.01
В	1.03	1.03	1.03	1.03	1.03	1.04
O	1.03	1.03	1.03	1.03	1.03	1.03
۵	1.03	1.03	1.03	1.03	1.03	1.03
Ш	1.03	1.03	1.03	1.03	1.03	1.03
į. LL	1.03	1.03	1.03	1.03	1.03	1.03
SHOULDER WIDTH & TYPE						
A	1.05	1.05	1.05	1.05	1.05	1.05
В	1.05	1.05	1.05	1.05	1.05	1.05
O	1.05	1.05	1.05	1.05	1.05	1.05
۵	1.06	1.06	1.06	1.06	1.06	1.06
Ш	1.06	1.06	1.06	1.06	1.06	1.06
L	1.06	1.06	1.06	1.06	1.06	1.06
HORIZONTAL CURVES						
V	2.05	2.05	2.05	2.05	2.05	2.05
<u>п</u>	1.00	1.00	1.00	1.00	1.00	1.00
U	1.00	1.00	1.00	1.00	1.00	1.00
۵	1.00	1.00	1.00	1.00	1.00	1.00
Ш	1.00	1.00	1.00	1.00	1.00	1.00
L.	19.84	19.84	19.84	19.84	19.84	19.84
ROADSIDE DESIGN						
<	0.94	0.94	0.94	0.94	0.94	0.94
В	0.94	0.94	0.94	0.94	0.94	0.94
O	1.00	1.00	1.00	1.00	1.00	1.00
	1.22	1.22	1.22	1.22	1.22	1.22
Ш	1.14	1.14	1.14	1.14	1.14	1.14
L	1.22	1.22	1.22	1.22	1.22	1.22

Exhibit 9 - Clark Road Accident Frequency Prediction Crash Modification Factors

-	PRE-2005 (BEFORE HOT					
	SPRINGS	EXISTING	PROJECT	PROJECT	PROJECT	PROJECT
LANE WIDTH	CLOSURE)	(2006-2010)	PHASE 1	PHASE 2	PHASE 3	PHASE 4
SEGMENT A	1.03	1.03	1.03	1.03	1.03	1.03
SHOULDER WIDTH & TYPE						
SEGMENT A	1.06	1.06	1.06	1.06	1.06	1.06
ROADSIDE DESIGN						
SEGMENT A	0.94	0.94	0.94	0.94	0.94	0.94

Exhibit 10 - Paraiso Springs Road Accident Frequency Prediction Calculations

					A CONTRACTOR OF THE PARTY OF TH					
•••			PA	RAISO SPRINGS	PARAISO SPRINGS ROAD TRAFFIC VOLUMES	OLUMES				Г
						PREVIOUS (BEFORE HOT SPRINGS				
						CLOSURE) (1991-2005)	EXISTING (2006-2010)		PROJECT PHASE 4	L -
ANNUAL A	VE TRIP	NNUAL AVE TRIP GEN (DAY GUESTS FOR 6 MOS-EXISTING, 70% NO. SEGMENT LIMITS	MOS-EXISTING, 70% ANNUAL AVE HOTEL OCCUPANCY)	SCUPANCY)		313	20	AADT	352	Γ
	<	Clark Road to west of parking area	SEGMENT	¥.		463	150		482	T
	80	West of parking area to east of horse corral	SEGMENT	80		431	118		450	•
	ပ	East of horse corral to west of horse corral	SEGMENT	O		398	82		417	
-	۵	West of horse corral to Panziera driveway	SEGMENT	۵		366	53		385	
	ш	Panziera driveway to Project	SEGMENT	ш		333	20		352	
	ш	Curve at Panziera driveway	SEGMENT	L		366	53		385	

AVE.				all of	ACCIDENT INTEGRAL CALCOLATIONS	SIGNATOR					
FEET MILES WIDTH (FT) WID	ROADWAY	I ENGTH	AVE.	AVE.	AVE.		JUV	PREDICTED		EXPE	CTED
Existing 690 0.131 2.1 10.5 2 Curve 0.033 0.011 0.028 0.029 0.039 0.0568 17 8.5 1 Tangent 0.024 0.005 0.019 0.014 0.005 0.019 0.014 0.005 0.019 0.014 0.005 0.028 0.005 0.019 0.014 0.005 0.028 0.005 0.019 0.014 0.005 0.027 15.5 7.75 0 Tangent 0.026 0.007 0.010 0.010 0.014 0.007 1.00 0.027 15.5 7.75 0 Tangent 0.027 0.071 0.010 0.010 0.010 0.014 0.005 0.005 0.005 0.005 0.008 0.004 0.007 1.00 0.007 0.005 0.005 0.008 0.004 0.007 0.007 0.005 0.005 0.000 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.005 0.000 0.00	SEGMENT	ET MILES	WIDTH (FT)	WIDTH (FT)	WINTH (FT)	9	994 2005)	COURT PRESCRIPTION		(4864 2040)	PREGUENCY
Existing 680 0.131 2.1 10.5 2 Curve 0.033 0.011 0.028 0.020 Existing 1.00 0.568 1.85 9.25 1 Tangent 0.034 0.016 0.055 0.029 Existing 1.300 0.268 1.85 9.25 1 Tangent 0.032 0.005 0.019 0.014 Existing 1.20 0.247 16 8 0 Tangent 0.025 0.005 0.019 0.014 Existing 1.20 0.247 16 8 0 Tangent 0.025 0.005 0.014 Existing 1.250 0.237 1.55 7.75 0 Curve 0.273 0.007 0.020 0.044 Existing 1.49 ACCIDENTS PREDICTED IN 1 YEAR 0.273 0.051 0.025 0.045 0.045 ACCIDENTS PREDICTED UN 1 YEARS ACCIDENTS PREDICTED 10 ST-2010 3.8 0.35 4.05 2.9 ACCIDENTS	(ISTING ROADWAY			1	1	1	1007-100	(2008-2010)	(0107-1661)	(0107-1661)	FTASE 4
Existing 3,000 0,568 145 9,25 1 Tangent 0,067 0,018 0,055 0,039	. A Existing	Ŭ	21	10.5	2 Curve		0.033	0.011	0.028	0.020	0.025
1,100 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	B Existing	Ī	18.5	9.25	1 Tange	aut.	0.067	0.018	0.055	0.039	0.051
Existing 1305 0.247 16 8 0 Tangent 0.022 0.005 0.025 0.018 Existing 1250 0.237 15.5 7.75 0 Tangent 0.025 0.007 0.002 0.004 Existing 1250 0.237 15.5 7.75 0 Tangent 0.025 0.007 0.002 0.004 Existing 1250 0.237 15.5 7.75 0 Tangent 0.025 0.007 0.007 0.001 0.005 0.004 ACCIDENTS PREDICTED IN YEARS 0.759 0.153 0.008 0.435 ACCIDENTS PREDICTED IN SYEARS 0.759 0.255 1.013 0.725 NO. OF YEARS FOR ONE ACCIDENT ACCIDENTS PREDICTED 1991-2010 3.8 0.35 4.06 2.9 ACCIDENTS PREDICTED 1991-2010 2.2 LAST 20 YEARS - NO. OF YEARS PER ACCIDENT 5 PREDICTED 1991-2010 2.7 EXPECTED 1901-2010 3.8 4.06 2.9 PREDICTED 1901-2010 3.8 4.06 2.9 EXPECTED 1901-2010 3.8 4.06 2.9 EXPECTED 1901-2010 3.8 4.06 2.9	C Existing		17	8.5	1 Tange	aut	0.024	0.005	0.019	0.014	0.018
Control	D Existing		16	6 0	0 Tange	, mt	0.032	0.005	0.025	0.018	0.025
145 0.027 15.5	E Existing		15.5	7.75	0 Tange	aut.	0.026	0.002	0.020	0.014	0.020
ACCIDENTS PREDICTED IN 1 YEARS 0.253 0.051 0.203 0.145 ACCIDENTS PREDICTED IN 3 YEARS 0.759 0.153 0.0608 0.435 ACCIDENTS PREDICTED IN 5 YEARS 1.266 0.255 1.013 0.725 NO. OF YEARS POR ONE ACCIDENT 4 20 5 7 ACCIDENTS PREDICTED 1991-2010 ACCIDENTS P	F Existing		15.5	7.75	0 Curve		0.071	0.010	0.056	0.040	0.054
PREDICTED IN 3 YEARS 0.759 0.153 0.608 0.435 PREDICTED IN 5 YEARS 1.285 0.255 1.013 0.725 RS FOR MON ACCIDENT 4 20 5 7 PREDICTED DURING PERIOD 3.8 0.3 4.05 2.9 EXPECTED 1991-2010 4.1 2.9 2.9 MRER 1991-2010 2 2 3.8 ARS - NO. OF YEARS PER ACCIDENT: 5 7	TOTAL			ACCIDENTS PRE	DICTED IN 1 YEAR		0.253	0.051	0.203	0.145	0.193
PREDICTED IN 5 YEARS 1.265 0.255 1.013 0.725 RS FOR ONE ACCIDENT 4 20 5.7 7 PREDICTED DURING PERIOD 3.8 0.3 4.05 2.9 PREDICTED 1991-2010 2 2 MBER 1991-2010 2 MBER 1991-2010 2 2 MBER 1991-2010 2 MBER 1				ACCIDENTS PRE	DICTED IN 3 YEARS	N N	0.759	0.153	0.608	0.435	0.579
RS FOR ONE ACCIDENT 4 20 5 PREDICTED DURING PERIOD 3.8 0.3 4.05 EXPECTED 1991-2010 4.1 MBER 1991-2010 2 ARS - NO. OF YEARS PER ACCIDENT: 5				ACCIDENTS PRE	DICTED IN 5 YEARS		1.265	0.255	1.013	0.725	0.965
PREDICTED DURING PERIOD 3.8 0.3 4.05 EXPECTED 1991-2010 4.1 AMBER 1991-2010 2 ANS - NO. OF YEARS PER ACCIDENT: 5				NO. OF YEARS F	OR ONE ACCIDENT		4	20	ĸ	7	40
EXPECTED 1991-2010 4.1 PREDICTED 1991-2010 2 ARS - NO. OF YEARS PER ACCIDENT: 5 7				ACCIDENTS PRE	DICTED DURING PERIC	8	3.8	0.3	4.05		
PREDICTED 1991-2010 4.1 MBER 1991-2010 2 ARS - NO. OF YEARS PER ACCIDENT: 5 7				ACCIDENTS EXP	ECTED 1991-2010					2.9	
ACTUAL NUMBER 1991-2010 LAST 20 YEARS - NO. OF YEARS PER ACCIDENT: PREDICTED EXPECITED 7				ACCIDENTS PRE	DICTED 1991-2010	100	. 15	4.1			
LAST 20 YEARS - NO. OF YEARS PER ACCIDENT: 5 PREDICTED 5				ACTUAL NUMBER	3 1991-2010			2			
PREDICTED 5 7				LAST 20 YEARS -	NO. OF YEARS PER AC	CCIDENT:					
EXPECTED				PREDICTED				40			
	-			EXPECTED				7			

				ACCIDENT RATE CALCULATIONS	ALCULATIONS	
			DAILY VEHICLE	DAILYVEHICLE		TAILY VEHICLE
		VAMICACIO	MI TPAVELLED	MITPAVELLED		AN TOWNER OF
Change in Acc	Change in Accident Frequency	SEGMENT	(DAILY VMT)	(DAILY VMT)		(DAILY VMT)
Based on Expected Fr	Based on Expected Frequency Over 20 Years	«	61	20		63
Base crashes per year =	0.145 crashes per year	80	245	29		255
Crashes per year at buildout =	0.193 crashes per year	O	83	18		87
Change in crashes per year =	0.048 crashes per year	٥	06	13		50
Change per mile of roadway =	0.034 crashes per year	ш	62	2		83
		ш	10	-		- 11
One additional crash per mile in	29.6 years	TOTAL	268	124		594
Change in Acc	Change in Accident Frequency		ANNUAL VMT 207,320	ANNUAL VMT 45,260		ANNUAL VMT
Based on Predicted Fred	Based on Predicted Frequency Over Last 5 Years					
Base crashes per year = Crashes per year =	0.051 crashes per year 0.193 crashes per year			3.290.840		
Change in crashes per year =	0.142 crashes per year					
Change per mile of roadway =	0.100 crashes per year			HISTORICAL		EXPECTED
				ACCIDENT		ACCIDENT
One additional crash per mile in	10.0 years			RATE		RATE
				(ACCIDENTS		(ACCIDENTS
				PER MILLION		PER MILLION
				VEHICLE MILES		VEHICLE MILES
			CALCILI ATER	(MANAGERE)		INVELLED
			ACCIDENT RATE	0.61		0.89
		i i	STATEWIDE AVERAGE RATE	1.02		100
			CALCULATED RATE			
			AS PERCENTAGE			
			OF AVG RATE	%09		87%
		PREDICTED RA	ATE IS BELOW STAT	EWIDE AVERAGE RA:	PREDICTED RATE IS BELOW STATEWIDE AVERAGE RATES AT PROJECT BUILDOUT. THERE	UT. THERE

I:2010Lobal281116 - Paraiso Hot Springs Road Improvements/HSM/HSM CalcalAccident frequency prediction Ex 5 10 11 090911

Exhibit 11 - Clark Road Accident Frequency Prediction Calculations

		PROJECT PHASE 4	352 AADT	320
		(2006-2010)		50
LUMES	PREVIOUS (BEFORE HOT SPRINGS	CLOSURE) (1991-2006)	301	83
CLARK ROAD TRAFFIC VOLUMES			INUAL AVE TRIP GEN (DAY GUESTS FOR 6 MOS-EXISTING, 70% ANNUAL AVE HOTEL OCCUPANCY) NO. SEGMENT LIMITS	A Paraiso Springs Rd to Arroyo Seco Rd SEGMENT A

		1			ACCIDENT FR	ACCIDENT FREQUENCY CALCULATIONS	ATIONS				
ROADWAY	LEN	LENGTH	AVE. PAVED	AVE. LANE	AVE. SHOULDER		AC	PREDICTED ACCIDENT FREQUENCY		ACCIDENT	EXPECTED ACCIDENT FREQUENCY
SEGMENT	FEET	MILES	WIDTH (FT)	WIDTH (FT)	WIDTH (FT)		(1991-2005)	(2006-2010)	(1991-2010)	(1991-2010)	PHASE 4
EXISTING ROADWAY A Existing	7,140	1.352	18	o	0	Tangent	0.031	0.007	0.025	0.022	0.102
	i	1.14				2					
IOIAL	7,140	1.352		ACCIDENTS PREDICTED IN 3 YEARS ACCIDENTS PREDICTED IN 3 YEARS	REDICTED IN 3	YEAR YEARS	0.093	0.007	0.025	0.022	0.102
				ACCIDENTS PREDICTED IN 5 YEARS	REDICTED IN §	5 YEARS	0.155	0.035	0.125	0.110	0.510
				NO. OF YEARS FOR ONE ACCIDENT	FOR ONE AC	CIDENT	32	143	40	45	9
-				ACCIDENTS PREDICTED DURING PERIOD	REDICTED DU	RING PERIOD	0.5	0.0	0.5		
				ACCIDENTS EXPECTED 1991-2010	(PECTED 1991	1-2010				0.44	100
				ACCIDENTS PREDICTED 1991-2010	REDICTED 199	11-2010		0.5			
				ACTUAL NUMBER 1991-2010	ER 1991-2010			0			
				LAST 20 YEAR!	S-NO. OF YEA	LAST 20 YEARS - NO. OF YEARS PER ACCIDENT:					
				PREDICTED				9			
				EXPECTED				45			
				YEARS PER ACTUAL ACCIDENT 1991-2010	TUAL ACCIDE	ENT 1991-2010					

Base crashes per year = 0.022 crashes per year at buildout = 0.102 crashes per year (Change in crashes per year = 0.080 crashes per y Change per mile of roadway = 0.056 crashes per y	n Expected Frequency Over 20 Years 1 year = 0.022 crashes per year 1 ilidout = 0.102 crashes per year 1 year = 0.080 crashes per year 2 o.080 crashes per year 3 o.086 crashes per year
One additional crash per mile in	17.7 years

Change in Accident Frequency	Based on Predicted Frequency Over Last 5 Years	0.007 crashes per year	0.102 crashes per year	0.095 crashes per year	0.067 crashes per year	14.9 years
Change in Ac	Based on Predicted Fire	Base crashes per year =	Crashes per year at buildout =	Change in crashes per year =	Change per mile of roadway =	One additional crash per mile in

		ACCIDENT RATE CALCULATIONS	LCULATIONS		Se : 12 : 2
ROADWAY	DAILY VEHICLE MI TRAVELLED (DAILY VMT)	DAILY VEHICLE MI TRAVELLED (DAILY VMT)			DAILY VEHICLE MI TRAVELLED (DAILY VMT)
«	112	27			432
	ANNUAL VMT 40,880	ANNUAL VMT 9,855			ANNUAL VMT 157,680
		VMT IN 19 YRS 652,620			
		HISTORICAL ACCIDENT RATE			EXPECTED ACCIDENT RATE
		(ACCIDENTS PER MILLION VEHICLE MILES TRAVELED)			(ACCIDENTS PER MILLION VEHICLE MILES TRAVELLED
	CALCULATED ACCIDENT RATE	0.00			0.65
	STATEWIDE AVERAGE RATE	1.02			1.02
	CALCULATED RATE AS PERCENTAGE OF AVG RATE	%0			63%
PREDICTED RA	PREDICTED RATE IS BELOW STATEWIDE AVERAGE RATES THROUGH PROJECT BUILDOUT. THERE WILL	IDE AVERAGE RATE	S THROUGH PROJ	ECT BUILDOUT	. THERE WILL