## TRACY HILLS SPECIFIC PLAN DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT VOLUME II DECEMBER 2014

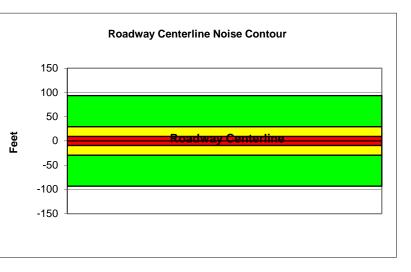
APPENDIX G NOISE DATA , DATED NOVEMBER 2013

Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR				Scenario:	Existing			
Analyst:	Ryan Chiene				Job #:	135721			
Roadway:	Lammers Road								
Road Segment:	North of Elevent	h Street							
	PROJECT DAT	A			S	SITE DATA			
Centerline Dist to E	Barrier	0		Road Grade:		0			
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	3990			
Receiver Barrier Di	st:	0		Peak Hour Ti	affic:	399			
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40			
Barrier Near Lane	CL Dist:	0		Centerline Se	paration:	24			
Barrier Far lane CL	. Dist:	0			NO	ISE INPUT	S		
Pad Elevation:		0.5		Site condition	is HARD SI	TE			
Road Elevation:		0			F	LEET MIX			
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	) Lft ∖	/iew:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE S	OURCE ELEVAT	IONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	47.7	56.5	54.7	48.6	57.3	57.9		
Medium Trucks:	56.7	48.6	42.2	40.6	49.1	49.3		
Heavy Trucks:	61.5	49.6	40.5	41.7	51.4	51.6		
Vehicle Noise:	63.9	58.1	55.1	50.2	58.8	59.2		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

CENTERLINE NOIS	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	93						
65 dBA	30						
70 dBA	9						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

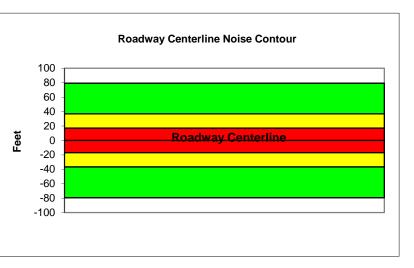


	Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR			Scenario:	Existing					
Analyst:	Ryan Chiene			Job #:	135721					
Roadway:	Lammers Road									
Road Segment:	Eleventh Street to Old	d Schulte Roa	d							
PR	OJECT DATA			S	SITE DATA					
Centerline Dist to Barrie	er: 0		Road Grade:		0					
Barrier (0=wall, 1= berm	n): <b>0</b>		Average Dail	y Traffic:	5600					
Receiver Barrier Dist:	0		Peak Hour Traffic:		560					
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Speed:		40					
Barrier Near Lane CL D	ist: 0		Centerline Se	eparation:	64					
Barrier Far lane CL Dist				NC	ISE INPUT	S				
Pad Elevation:	0.5		Site conditions: SOFT SITE							
Road Elevation:	0			F	LEET MIX					
Observer Height (above	e grade): 5.5		Туре	Day	Evening	Night	Daily			
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742			
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184			
NOISE SOUR	CE ELEVATIONS (Fe	eet)	Heavy Truck	0.865	0.027	0.108	0.0074			
Autos:	0									
Medium Trucks:	2.3									
Heavy Trucks:	8									

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	45.3	54.1	52.3	46.2	54.9	55.5	
Medium Trucks:	54.3	46.2	39.8	38.3	46.7	47.0	
Heavy Trucks:	59.1	47.2	38.1	39.4	49.1	49.2	
Vehicle Noise:	61.5	55.7	52.8	47.8	56.4	56.9	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	79					
65 dBA	37					
70 dBA	17					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

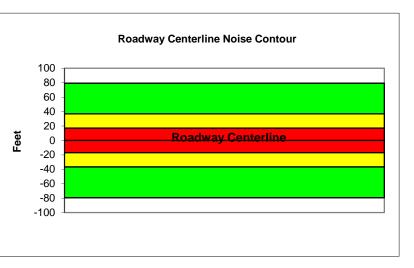


			ninistration F on Model (C					
Project Name:	Tracy Hills EIR			Scenario:	Existing			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Lammers Road							
Road Segment:	Old Schulte Road to V	alpico Road						
PR	OJECT DATA			5	SITE DATA			
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0			
Barrier (0=wall, 1= berm	n): <b>0</b>		Average Dail	y Traffic:	5600			
Receiver Barrier Dist:	0		Peak Hour T	raffic:	560			
Centerline Dist. To Obse	oserver: 100		Vehicle Speed:		40			
Barrier Near Lane CL D	ist: 0		Centerline Separation:		20			
Barrier Far lane CL Dist	: 0		NOISE INPUTS					
Pad Elevation:	0.5		Site conditions: SOFT SITE					
Road Elevation:	0		FLEET MIX					
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUR	CE ELEVATIONS (Fe	et)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	46.3	55.1	53.3	47.3	55.9	56.5		
Medium Trucks:	55.3	47.2	40.8	39.3	47.8	48.0		
Heavy Trucks:	60.1	48.2	39.1	40.4	50.1	50.2		
Vehicle Noise:	62.5	56.7	53.8	48.8	57.4	57.9		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	79					
65 dBA	37					
70 dBA	17					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

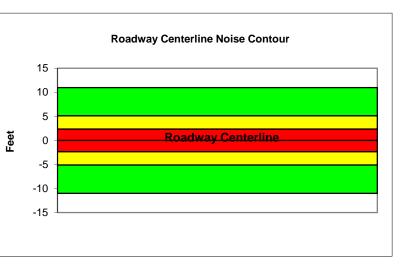


		l Highway Adr Noise Predict						
Project Name:	Tracy Hills EIR		-	Scenario:	Existing			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Lammers Road							
Road Segment:	South of Valpico Ro	bad						
P	ROJECT DATA			S	SITE DATA			
Centerline Dist to Barr	ier:	0	Road Grade:		0			
Barrier (0=wall, 1= ber	rm):	0	Average Dail	y Traffic:	290			
<b>Receiver Barrier Dist:</b>		0	Peak Hour T	raffic:	29			
Centerline Dist. To Ob	server: 10	00	Vehicle Speed:		40			
Barrier Near Lane CL	Dist:	0	Centerline Separation: 20					
Barrier Far lane CL Di	st:	0	NOISE INPUTS					
Pad Elevation:	0	.5	Site condition	ns:SOFT SI	ΤE			
Road Elevation:		0	FLEET MIX					
Observer Height (abov	ve grade): 5	.5	Туре	Day	Evening	Night	Daily	
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View	: <b>-90</b>	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	RCE ELEVATIONS (	(Feet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0						
Medium Trucks:	2	.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	33.5	42.3	40.5	34.4	43.0	43.7	
Medium Trucks:	42.4	34.4	28.0	26.4	34.9	35.1	
Heavy Trucks:	47.3	35.3	26.3	27.5	37.2	37.4	
Vehicle Noise:	49.7	43.8	40.9	36.0	44.6	45.0	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR				
Unmitigated					
60 dBA	11				
65 dBA	5				
70 dBA	2				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

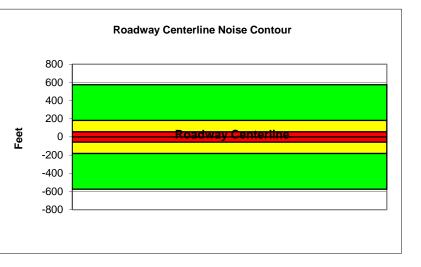


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Corral Hollow Road	b						
Road Segment:	North of Eleventh S	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	24540		
Receiver Barrier Di	st:	0		Peak Hour Ti	affic:	2454		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane	CL Dist:	0		Centerline Se	paration:	64		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Viev	N:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.0	63.8	62.0	55.9	64.5	65.1
Medium Trucks:	63.9	55.9	49.5	47.9	56.4	56.6
Heavy Trucks:	68.8	56.8	47.8	49.0	58.7	58.8
Vehicle Noise:	71.2	65.3	62.4	57.5	66.0	66.5

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	575				
65 dBA	182				
70 dBA	57				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

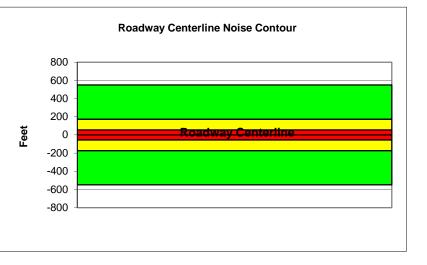


		leral Highway A ffic Noise Predi						
Project Name:	Tracy Hills EIR			Scenario:	Existing			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Corral Hollow Road							
Road Segment:	Eleventh Street to N	New Schulte Roa	d					
	PROJECT DATA			S	SITE DATA			
Centerline Dist to E	Barrier	0	Road Grade:		0			
Barrier (0=wall, 1=	berm):	0	Average Dail	y Traffic:	23440			
Receiver Barrier Di	st:	0	Peak Hour T	raffic:	2344			
Centerline Dist. To	Observer:	100	Vehicle Spee	ed:	40			
Barrier Near Lane	CL Dist:	0	Centerline S	eparation:	60			
Barrier Far lane CL	. Dist:	0		NOISE INPUTS				
Pad Elevation:		0.5	Site condition	ns <b>HARD SI</b>	TE			
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0	Туре	Day	Evening	Night	Daily	
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft Viev	v: -	0 Med. Truck	0.848	0.049	0.103	0.0184	
NOISE S	OURCE ELEVATION	NS (Feet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.8	63.6	61.8	55.7	64.4	65.0
Medium Trucks:	63.8	55.7	49.3	47.8	56.3	56.5
Heavy Trucks:	68.6	56.7	47.6	48.9	58.6	58.7
Vehicle Noise:	71.0	65.2	62.3	57.3	65.9	66.4

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	550					
65 dBA	174					
70 dBA	55					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

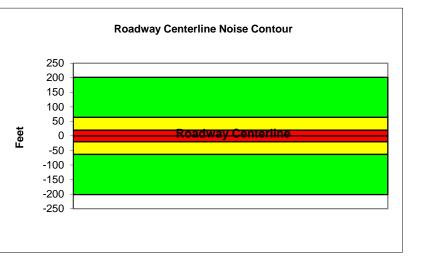


		deral Highwa affic Noise Pr	-					
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Corral Hollow Road	d						
Road Segment:	New Schulte Road	to Linne Roa	d					
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	/ Traffic:	8615		
Receiver Barrier Di	st:	0		Peak Hour Ti	affic:	861.5		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane (	CL Dist:	0		Centerline Se		60		
Barrier Far lane CL	Dist:	0				ISE INPUT	S	
Pad Elevation:		0.5		Site condition	s <b>HARD SI</b>	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	50.5	59.3	57.5	51.4	60.0	60.7			
Medium Trucks:	59.4	51.4	45.0	43.4	51.9	52.1			
Heavy Trucks:	64.3	52.3	43.3	44.5	54.2	54.4			
Vehicle Noise:	66.7	60.8	57.9	53.0	61.6	62.0			

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

CENTERLINE NOIS	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	202						
65 dBA	64						
70 dBA	20						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

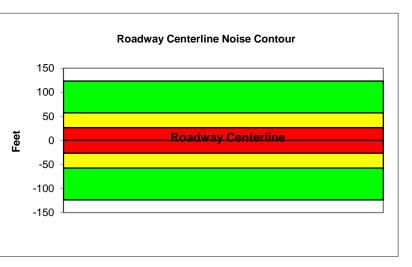


		Highway Adn Ioise Predicti						
Project Name:	Tracy Hills EIR			Scenario:	Existing			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Corral Hollow Road							
Road Segment:	Linne Road to Spine	Road						
PF	ROJECT DATA			5	SITE DATA			
Centerline Dist to Barri	er: 0	)	Road Grade:		0			
Barrier (0=wall, 1= ber	m): <b>0</b>	1	Average Dail	y Traffic:	6330			
Receiver Barrier Dist:	0	)	Peak Hour Traffic:		633			
Centerline Dist. To Ob	server: 100	)	Vehicle Speed: 50					
Barrier Near Lane CL	Dist: 0	)	Centerline Separation: 24					
Barrier Far lane CL Dis	st: <b>0</b>	1	NOISE INPUTS					
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΓE			
Road Elevation:	0	1	FLEET MIX					
Observer Height (abov	re grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0	1	Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	RCE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	49.6	58.3	56.6	50.5	59.1	59.7		
Medium Trucks:	57.2	49.2	42.8	41.2	49.7	49.9		
Heavy Trucks:	61.5	49.5	40.5	41.7	51.1	51.2		
Vehicle Noise:	63.8	59.4	56.9	51.6	60.2	60.7		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	123					
65 dBA	57					
70 dBA	27					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

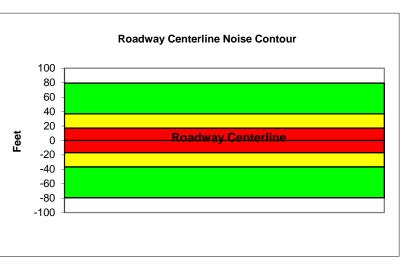


			ninistration F ion Model (C					
Project Name:	Tracy Hills EIR			Scenario:	Existing			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Corral Hollow Road							
Road Segment:	South of Spine Road							
PF	ROJECT DATA			5	SITE DATA			
Centerline Dist to Barri	er: 0		Road Grade:		0			
Barrier (0=wall, 1= berr	m): <b>0</b>		Average Dail	y Traffic:	3260			
Receiver Barrier Dist:	0		Peak Hour Traffic:		326			
Centerline Dist. To Observer: 100			Vehicle Speed:		50			
Barrier Near Lane CL	Dist: 0		Centerline Separation: 24					
Barrier Far lane CL Dis	st: <b>0</b>		NOISE INPUTS					
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	TE			
Road Elevation:	0		FLEET MIX					
Observer Height (abov	e grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUR	RCE ELEVATIONS (Fe	eet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	46.7	55.5	53.7	47.6	56.2	56.8		
Medium Trucks:	54.4	46.3	39.9	38.3	46.8	47.0		
Heavy Trucks:	58.6	46.6	37.6	38.8	48.2	48.3		
Vehicle Noise:	60.9	56.6	54.0	48.7	57.3	57.8		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	79					
65 dBA	37					
70 dBA	17					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

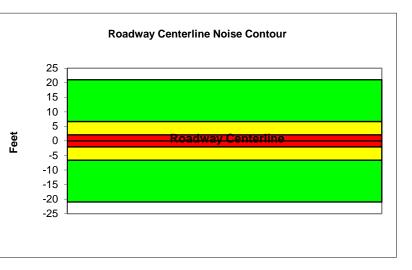


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)										
Project Name:	Tracy Hills EIR				Scenario:	Existing				
Analyst:	Ryan Chiene				Job #:	135721				
Roadway:	Chrisman Road									
Road Segment:	North of Elevent	th Street								
	PROJECT DAT	A			S	SITE DATA				
Centerline Dist to B	arrier	0		Road Grade:		0				
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	1220				
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	122				
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	35				
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	24				
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S			
Pad Elevation:		0.5		Site condition	is HARD SI	TE				
Road Elevation:		0			F	LEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily		
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft \	/iew:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SO	OURCE ELEVAT	IONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:		0								
Medium Trucks:		2.3								
Heavy Trucks:		8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	40.9	49.7	47.9	41.8	50.4	51.0		
Medium Trucks:	50.6	42.5	36.1	34.6	43.1	43.3		
Heavy Trucks:	55.8	43.9	34.8	36.0	45.9	46.1		
Vehicle Noise:	58.3	51.6	48.4	43.7	52.3	52.8		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	21						
65 dBA	7						
70 dBA	2						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

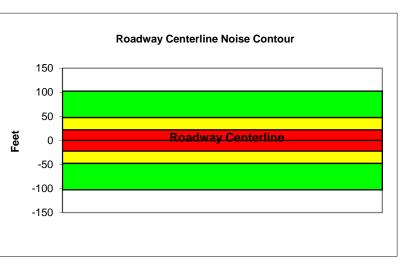


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR		Scenario: Existing						
Analyst:	Ryan Chiene			Job #:	135721				
Roadway: 0	Chrisman Road								
Road Segment:	Eleventh Street to Linr	ne Road							
PRO	OJECT DATA			S	SITE DATA				
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0				
Barrier (0=wall, 1= berm	): 0		Average Dail	y Traffic:	6225				
Receiver Barrier Dist:	0		Peak Hour Traffic:		622.5				
Centerline Dist. To Obse	erver: <b>100</b>		Vehicle Speed:		45				
Barrier Near Lane CL Di	ist: 0		Centerline Separation:		24				
Barrier Far lane CL Dist	0		NOISE INPUTS						
Pad Elevation:	0.5		Site conditions: SOFT SITE						
Road Elevation:	0		FLEET MIX						
Observer Height (above	grade): <b>5.5</b>		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOUR	NOISE SOURCE ELEVATIONS (Feet)			0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	48.2	56.9	55.2	49.1	57.7	58.3		
Medium Trucks:	56.4	48.4	42.0	40.4	48.9	49.1		
Heavy Trucks:	61.0	49.0	40.0	41.2	50.7	50.9		
Vehicle Noise:	63.3	58.3	55.5	50.4	59.0	59.5		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	103						
65 dBA	48						
70 dBA	22						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

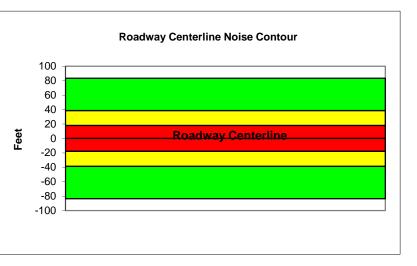


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR			Scenario:	Existing			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Chrisman Road							
Road Segment:	South of Linne Road							
PF	ROJECT DATA			5	SITE DATA			
Centerline Dist to Barri	er: 0	)	Road Grade:		0			
Barrier (0=wall, 1= berr	m): <b>0</b>	1	Average Dail	y Traffic:	2760			
Receiver Barrier Dist:	0	)	Peak Hour T	raffic:	276			
Centerline Dist. To Obs	Centerline Dist. To Observer: 100		Vehicle Speed:		55			
Barrier Near Lane CL	Dist: 0		Centerline Se	eparation:	24			
Barrier Far lane CL Dis	st: 0	1	NOISE INPUTS					
Pad Elevation:	0.5		Site conditior	ns:SOFT SI				
Road Elevation:	0	1		F	LEET MIX			
Observer Height (abov	e grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0	1	Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUR	RCE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	47.1	55.9	54.1	48.1	56.7	57.3		
Medium Trucks:	54.3	46.2	39.8	38.3	46.7	47.0		
Heavy Trucks:	58.2	46.3	37.2	38.5	47.7	47.8		
Vehicle Noise:	60.5	56.9	54.4	49.0	57.6	58.1		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	83					
65 dBA	39					
70 dBA	18					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

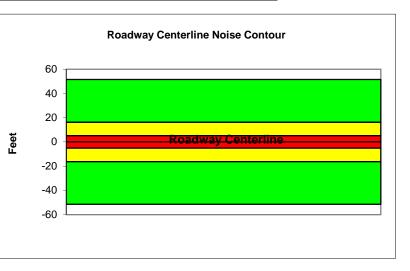


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	Linne Road to Val	oico Road						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	2200		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	220		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	18		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.2	54.0	52.2	46.1	54.8	55.4
Medium Trucks:	54.2	46.1	39.7	38.1	46.6	46.9
Heavy Trucks:	59.0	47.1	38.0	39.2	49.0	49.1
Vehicle Noise:	61.4	55.6	52.7	47.7	56.3	56.8

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	52					
65 dBA	16					
70 dBA	5					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

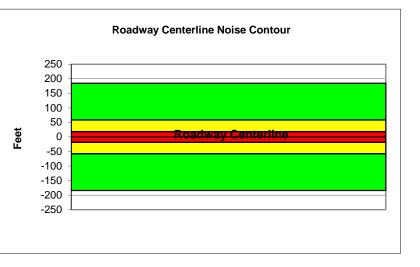


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	Valpico Road to W	est Schulte R	Road					
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	5930		
<b>Receiver Barrier Di</b>	st:	0		Peak Hour Ti	raffic:	593		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	45		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	34		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is <b>HARD SI</b>	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.7	59.5	57.7	51.6	60.3	60.9
Medium Trucks:	59.0	50.9	44.6	43.0	51.5	51.7
Heavy Trucks:	63.5	51.6	42.5	43.7	53.3	53.4
Vehicle Noise:	65.9	60.8	58.1	52.9	61.5	62.0

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOIS	SE CONTOUR
Unmitigated	
60 dBA	184
65 dBA	58
70 dBA	18
Mitigated	
60 dBA	
65 dBA	
70 dBA	

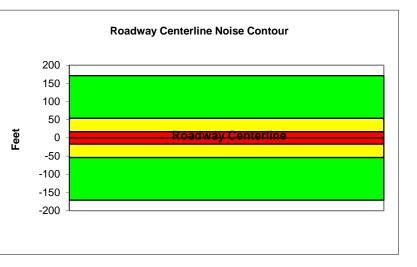


		Federal Highv Traffic Noise						
Project Name:	Tracy Hills EIR				-	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Driv	e						
Road Segment:	West Schulte F	Road to Elevent	h Street					
	PROJECT DA	ТА			S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	7310		
<b>Receiver Barrier Di</b>	st:	0		Peak Hour T	raffic:	731		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	is <b>HARD SI</b>	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft	View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.3	59.1	57.3	51.2	59.9	60.5
Medium Trucks:	59.3	51.2	44.8	43.3	51.7	52.0
Heavy Trucks:	64.1	52.2	43.1	44.4	54.1	54.2
Vehicle Noise:	66.5	60.7	57.8	52.8	61.4	61.9

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOIS	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	171					
65 dBA	54					
70 dBA	17					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

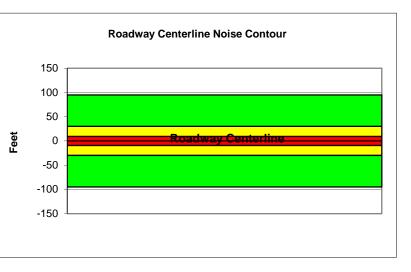


				ninistration R ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	North of Eleventh	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	4055		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	405.5		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.8	56.5	54.8	48.7	57.3	57.9
Medium Trucks:	56.7	48.7	42.3	40.7	49.2	49.4
Heavy Trucks:	61.6	49.6	40.6	41.8	51.5	51.6
Vehicle Noise:	63.9	58.1	55.2	50.3	58.8	59.3

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	95				
65 dBA	30				
70 dBA	10				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

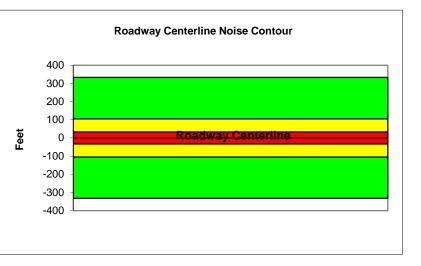


		ederal Highwa affic Noise P						
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Tracy Boulevard							
Road Segment:	North of Eleventh	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	19300		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	1930		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	35		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	32		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEVATIO	DNS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	52.7	61.5	59.7	53.6	62.3	62.9	
Medium Trucks:	62.5	54.4	48.0	46.4	54.9	55.2	
Heavy Trucks:	67.7	55.7	46.7	47.9	57.8	57.9	
Vehicle Noise:	70.1	63.5	60.3	55.6	64.2	64.6	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	333					
65 dBA	105					
70 dBA	33					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

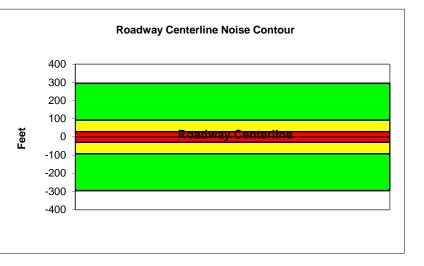


		deral Highway affic Noise Pre						
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Tracy Boulevard							
Road Segment:	Eleventh Street to V	√alpico Road						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	17080		
Receiver Barrier Di	st:	0		Peak Hour T	affic:	1708		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	35		
Barrier Near Lane (	CL Dist:	0		Centerline Se	paration:	38		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Viev	N:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	52.1	60.9	59.1	53.0	61.7	62.3	
Medium Trucks:	61.8	53.8	47.4	45.8	54.3	54.5	
Heavy Trucks:	67.0	55.1	46.1	47.3	57.2	57.3	
Vehicle Noise:	69.5	62.8	59.7	55.0	63.5	64.0	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	294					
65 dBA	93					
70 dBA	29					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

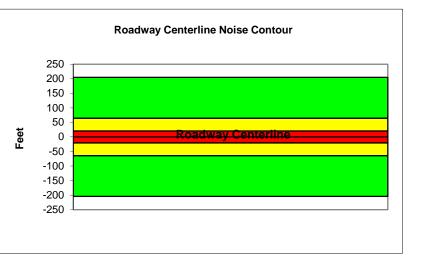


				ninistration R ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Tracy Boulevard							
Road Segment:	Valpico Road to Lir	nne Road						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	8730		
Receiver Barrier Di	st:	0		Peak Hour Ti	affic:	873		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane	CL Dist:	0		Centerline Se	paration:	40		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Viev	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	50.8	59.6	57.8	51.7	60.4	61.0		
Medium Trucks:	59.8	51.7	45.3	43.8	52.3	52.5		
Heavy Trucks:	64.6	52.7	43.6	44.9	54.6	54.7		
Vehicle Noise:	67.0	61.2	58.3	53.3	61.9	62.4		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

CENTERLINE NOIS	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	205						
65 dBA	65						
70 dBA	20						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

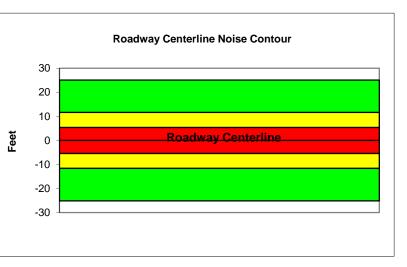


		ederal Highwa raffic Noise P						
Project Name:	Tracy Hills El	R		-	Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Tracy Bouleva	ard						
Road Segment:	South of Linn	e Road						
P	ROJECT DAT	4			5	SITE DATA		
Centerline Dist to Bar	rier:	0		Road Grade:		0		
Barrier (0=wall, 1= be	rm):	0		Average Dail	y Traffic:	1000		
Receiver Barrier Dist:		0		Peak Hour T	raffic:	100		
Centerline Dist. To O	oserver:	100		Vehicle Speed:		40		
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	22		
Barrier Far lane CL D	ist:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		FLEET MIX				
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 9	<b>0</b> Lf	t View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	IRCE ELEVATI	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	38.8	47.6	45.8	39.7	48.4	49.0		
Medium Trucks:	47.8	39.7	33.3	31.7	40.2	40.5		
Heavy Trucks:	52.6	40.7	31.6	32.8	42.5	42.7		
Vehicle Noise:	55.0	49.2	46.2	41.3	49.9	50.4		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	25					
65 dBA	12					
70 dBA	5					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

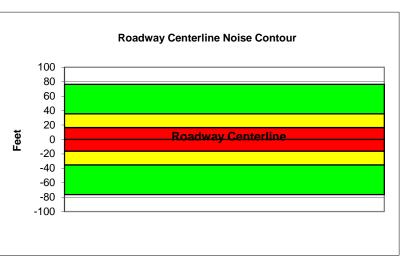


	Federal High Traffic Noise		ninistration R on Model (C				
Project Name:	Tracy Hills EIR			Scenario:	Existing		
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Linne Road						
Road Segment:	West of Tracy Boulevard						
PR	OJECT DATA			S	SITE DATA		
Centerline Dist to Barrie	er: <b>O</b>		Road Grade:		0		
Barrier (0=wall, 1= berm	n): <b>O</b>		Average Dail	y Traffic:	3990		
Receiver Barrier Dist:	0		Peak Hour T	raffic:	399		
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Speed:		45		
Barrier Near Lane CL D	ist: 0		Centerline Se	eparation:	24		
Barrier Far lane CL Dist	: 0			NC	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΓE		
Road Elevation:	0		FLEET MIX				
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	46.2	55.0	53.2	47.1	55.8	56.4	
Medium Trucks:	54.5	46.4	40.1	38.5	47.0	47.2	
Heavy Trucks:	59.0	47.1	38.0	39.3	48.8	48.9	
Vehicle Noise:	61.4	56.3	53.6	48.4	57.0	57.5	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	76					
65 dBA	35					
70 dBA	16					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

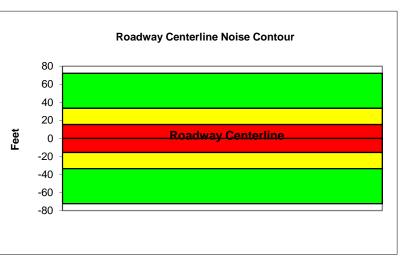


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR			Scenario:	Existing			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Linne Road							
Road Segment:	East of Tracy Bouleva	rd						
PR	ROJECT DATA			S	SITE DATA			
Centerline Dist to Barri	er: 0		Road Grade:		0			
Barrier (0=wall, 1= berr	m): <b>0</b>		Average Dail	y Traffic:	3680			
Receiver Barrier Dist:	0		Peak Hour T	raffic:	368			
Centerline Dist. To Obs	server: <b>100</b>		Vehicle Speed: 45					
Barrier Near Lane CL	Dist: 0		Centerline Separation: 24					
Barrier Far lane CL Dis	t: <b>0</b>		NOISE INPUTS					
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE			
Road Elevation:	0		FLEET MIX					
Observer Height (abov	e grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUF	RCE ELEVATIONS (Fe	eet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0					•	-	
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.9	54.7	52.9	46.8	55.4	56.1
Medium Trucks:	54.2	46.1	39.7	38.1	46.6	46.9
Heavy Trucks:	58.7	46.7	37.7	38.9	48.5	48.6
Vehicle Noise:	61.0	56.0	53.2	48.1	56.7	57.2

MITIGATED	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	72					
65 dBA	34					
70 dBA	16					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

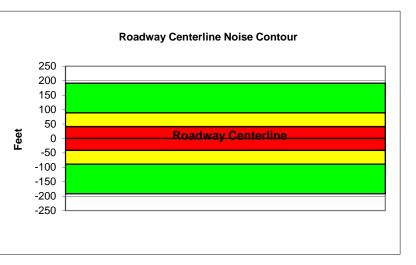


		Highway Adn oise Predicti					
Project Name:	Tracy Hills EIR			Scenario:	Existing		
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Altamont Pass Road						
Road Segment:	West of Greenville Ro	bad					
PR	OJECT DATA			S	SITE DATA		
Centerline Dist to Barrie	er: 0		Road Grade:		0		
Barrier (0=wall, 1= berr	n): <b>0</b>		Average Dail	y Traffic:	15860		
Receiver Barrier Dist:	0		Peak Hour T	raffic:	1586		
Centerline Dist. To Obs	server: 100		Vehicle Spee	ed:	45		
Barrier Near Lane CL D	Dist: 0		Centerline Se	eparation:	26		
Barrier Far lane CL Dis	t: <b>0</b>			NO	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:	0			F	LEET MIX		
Observer Height (abov	e grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	RCE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	52.2	61.0	59.2	53.1	61.7	62.3	
Medium Trucks:	60.5	52.4	46.0	44.4	52.9	53.2	
Heavy Trucks:	65.0	53.0	44.0	45.2	54.7	54.9	
Vehicle Noise:	67.3	62.3	59.5	54.4	63.0	63.5	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	192					
65 dBA	89					
70 dBA	41					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

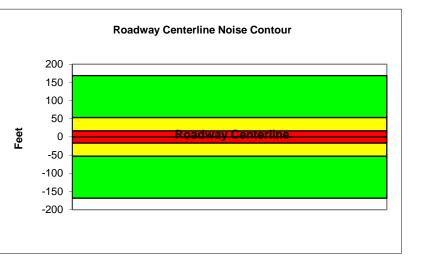


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR				Scenario:	Existing		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Patterson Pass Ro	ad						
Road Segment:	West of Greenville	Road						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1= I	berm):	0		Average Dail	y Traffic:	5430		
<b>Receiver Barrier Dis</b>	st:	0		Peak Hour T	raffic:	543		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	45		
Barrier Near Lane C	CL Dist:	0		Centerline Se	eparation:	42		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	is <b>HARD SI</b>	TE		
Road Elevation:		0			FLEET MIX			
Observer Height (al	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Viev	N:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SC	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	50.2	59.0	57.2	51.1	59.8	60.4	
Medium Trucks:	58.5	50.4	44.0	42.5	51.0	51.2	
Heavy Trucks:	63.0	51.1	42.0	43.2	52.8	52.9	
Vehicle Noise:	65.3	60.3	57.6	52.4	61.0	61.5	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	169				
65 dBA	53				
70 dBA	17				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

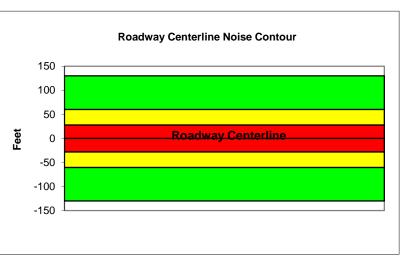


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR			Scenario:	Existing			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Tesla Road							
Road Segment:	West of Greenville Ro	bad						
PF	ROJECT DATA			S	SITE DATA			
Centerline Dist to Barri	er: 0		Road Grade:		0			
Barrier (0=wall, 1= ber	m): <b>0</b>		Average Dail	y Traffic:	6840			
Receiver Barrier Dist:	0		Peak Hour T	raffic:	684			
Centerline Dist. To Ob	server: 100		Vehicle Speed: 50					
Barrier Near Lane CL	Dist: 0		Centerline Separation: 24					
Barrier Far lane CL Dis	st: <b>0</b>		NOISE INPUTS					
Pad Elevation:	0.5		Site conditions: SOFT SITE					
Road Elevation:	0		FLEET MIX					
Observer Height (abov	re grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	RCE ELEVATIONS (Fe	eet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	49.9	58.7	56.9	50.8	59.5	60.1			
Medium Trucks:	57.6	49.5	43.1	41.5	50.0	50.3			
Heavy Trucks:	61.8	49.9	40.8	42.0	51.4	51.5			
Vehicle Noise:	64.1	59.8	57.2	51.9	60.5	61.0			

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	130					
65 dBA	60					
70 dBA	28					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

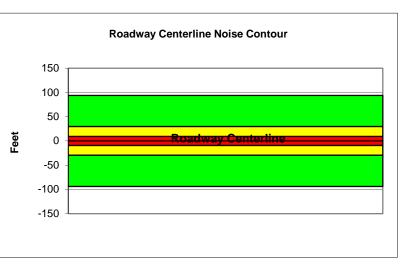


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR			-	Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Lammers Road							
Road Segment:	North of Eleventh S	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	4010		
<b>Receiver Barrier Dis</b>	st:	0		Peak Hour Ti	raffic:	401		
Centerline Dist. To	Observer:	100		Vehicle Speed:		40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Viev	<b>N</b> :	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	47.7	56.5	54.7	48.6	57.3	57.9		
Medium Trucks:	56.7	48.6	42.2	40.6	49.1	49.4		
Heavy Trucks:	61.5	49.6	40.5	41.7	51.5	51.6		
Vehicle Noise:	63.9	58.1	55.2	50.2	58.8	59.3		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	94					
65 dBA	30					
70 dBA	9					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

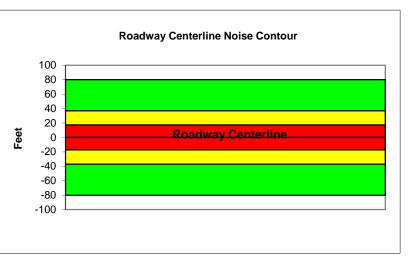


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR			Scenario:	Existing Pl	us Project			
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	Lammers Road								
Road Segment:	Eleventh Street to Old Sc	chulte Roa	d						
PR	OJECT DATA			5	SITE DATA				
Centerline Dist to Barrie	er: <b>0</b>		Road Grade:		0				
Barrier (0=wall, 1= bern	n): <b>0</b>		Average Dail	y Traffic:	5695				
Receiver Barrier Dist:	0		Peak Hour Traffic:		569.5				
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Speed:		40				
Barrier Near Lane CL D	Dist: 0		Centerline Se	eparation:	64				
Barrier Far lane CL Dist	t: <b>O</b>		NOISE INPUTS						
Pad Elevation:	0.5		Site conditions: SOFT SITE						
Road Elevation:	0		FLEET MIX						
Observer Height (above	e grade): 5.5		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	45.4	54.2	52.4	46.3	55.0	55.6		
Medium Trucks:	54.4	46.3	39.9	38.3	46.8	47.0		
Heavy Trucks:	59.2	47.3	38.2	39.4	49.1	49.3		
Vehicle Noise:	61.6	55.8	52.8	47.9	56.5	56.9		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	80						
65 dBA	37						
70 dBA	17						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

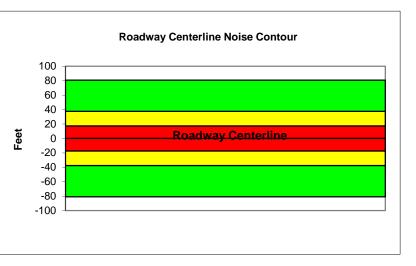


		deral Highway affic Noise Pr						
Project Name:	Tracy Hills EIR			-	Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Lammers Road	l						
Road Segment:	Old Schulte Ro	ad to Valpico I	Road					
P	ROJECT DATA				5	SITE DATA		
Centerline Dist to Barr	ier:	0		Road Grade:		0		
Barrier (0=wall, 1= ber	·m):	0		Average Dail	y Traffic:	5770		
Receiver Barrier Dist:		0		Peak Hour T	raffic:	577		
Centerline Dist. To Ob	server:	100		Vehicle Spee	ed:	40		
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	20		
Barrier Far lane CL Di	st:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		FLEET MIX				
Observer Height (abov	ve grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	) Lft \	/iew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	RCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.5	55.3	53.5	47.4	56.0	56.6
Medium Trucks:	55.4	47.4	41.0	39.4	47.9	48.1
Heavy Trucks:	60.3	48.3	39.3	40.5	50.2	50.3
Vehicle Noise:	62.6	56.8	53.9	49.0	57.5	58.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	81					
65 dBA	38					
70 dBA	17					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

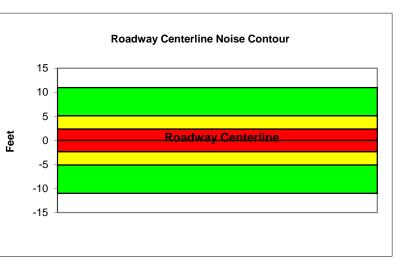


		l Highway Adr Noise Predict					
Project Name:	Tracy Hills EIR			Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Lammers Road						
Road Segment:	South of Valpico Ro	bad					
PF	ROJECT DATA			5	SITE DATA		
Centerline Dist to Barri	ier:	0	Road Grade:		0		
Barrier (0=wall, 1= ber	m):	0	Average Dail	y Traffic:	290		
Receiver Barrier Dist:		0	Peak Hour T	raffic:	29		
Centerline Dist. To Ob	server: 10	00	Vehicle Spee	ed:	40		
Barrier Near Lane CL I	Dist:	0	Centerline Se	eparation:	20		
Barrier Far lane CL Dis	st:	0		NC	ISE INPUT	S	
Pad Elevation:	0	.5	Site condition	ns:SOFT SI	ΤЕ		
Road Elevation:		0		F	LEET MIX		
Observer Height (abov	ve grade): 5	.5	Туре	Day	Evening	Night	Daily
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View	- <b>90</b>	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	RCE ELEVATIONS (	(Feet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0					
Medium Trucks:	2	.3					
Heavy Trucks:		8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	33.5	42.3	40.5	34.4	43.0	43.7
Medium Trucks:	42.4	34.4	28.0	26.4	34.9	35.1
Heavy Trucks:	47.3	35.3	26.3	27.5	37.2	37.4
Vehicle Noise:	49.7	43.8	40.9	36.0	44.6	45.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	11					
65 dBA	5					
70 dBA	2					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

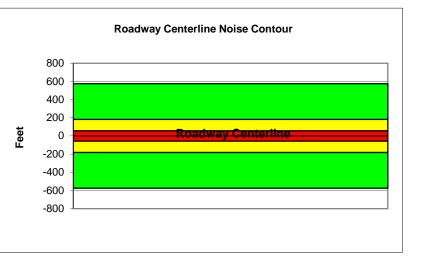


				ninistration R ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Corral Hollow Roa	ad						
Road Segment:	North of Eleventh	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	24540		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	2454		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	64		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vi	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.0	63.8	62.0	55.9	64.5	65.1
Medium Trucks:	63.9	55.9	49.5	47.9	56.4	56.6
Heavy Trucks:	68.8	56.8	47.8	49.0	58.7	58.8
Vehicle Noise:	71.2	65.3	62.4	57.5	66.0	66.5

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	575				
65 dBA	182				
70 dBA	57				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

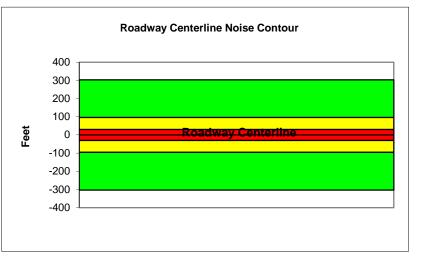


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing Pl	us Project	
Analyst:	Ryan Chiene				Job #:	135721	-	
Roadway:	Corral Hollow Road	1						
Road Segment:	Eleventh Street to N	New Schulte	Road					
	PROJECT DATA				S	SITE DATA		
Centerline Dist to Ba	arrier	0		Road Grade:		0		
Barrier (0=wall, 1= b	perm):	0		Average Dail	y Traffic:	12953		
Receiver Barrier Dis	st:	0		Peak Hour T	raffic:	1295.3		
Centerline Dist. To	Observer:	100		Vehicle Speed:		40		
Barrier Near Lane C	CL Dist:	0		Centerline Se	eparation:	60		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (at	pove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Viev	V:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SC	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.3	61.0	59.3	53.2	61.8	62.4
Medium Trucks:	61.2	53.1	46.8	45.2	53.7	53.9
Heavy Trucks:	66.1	54.1	45.1	46.3	56.0	56.1
Vehicle Noise:	68.4	62.6	59.7	54.7	63.3	63.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	303					
65 dBA	96					
70 dBA	30					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

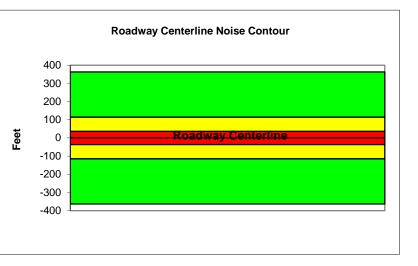


				ninistration R ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene				Job #:	135721	-	
Roadway:	Corral Hollow Roa	ad						
Road Segment:	New Schulte Roa	d to Linne F	Road					
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	15505		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	1550.5		
Centerline Dist. To	Observer:	100		Vehicle Speed: 40		40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	60		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.0	61.8	60.0	53.9	62.6	63.2
Medium Trucks:	62.0	53.9	47.5	46.0	54.5	54.7
Heavy Trucks:	66.8	54.9	45.8	47.1	56.8	56.9
Vehicle Noise:	69.2	63.4	60.5	55.5	64.1	64.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOIS	SE CONTOUR
Unmitigated	
60 dBA	363
65 dBA	115
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	

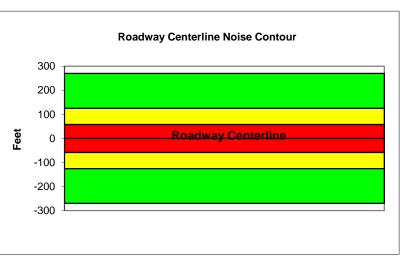


		Federal Highw Traffic Noise F						
Project Name:	Tracy Hills				Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chier	ne			Job #:	135721		
Roadway:	Corral Holle	ow Road						
Road Segment:	Linne Road	to Spine Road						
P	PROJECT DA	TA			5	SITE DATA		
Centerline Dist to Bar	rier:	0		Road Grade:		0		
Barrier (0=wall, 1= be	erm):	0		Average Dail	y Traffic:	20470		
Receiver Barrier Dist:		0		Peak Hour T	raffic:	2047		
Centerline Dist. To Ol	bserver:	100		Vehicle Speed:		50		
Barrier Near Lane CL	Dist:	0		Centerline Separation: 24				
Barrier Far lane CL D	ist:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		FLEET MIX				
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 9	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOL	JRCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.7	63.4	61.6	55.6	64.2	64.8
Medium Trucks:	62.3	54.3	47.9	46.3	54.8	55.0
Heavy Trucks:	66.6	54.6	45.6	46.8	56.2	56.3
Vehicle Noise:	68.9	64.5	62.0	56.7	65.3	65.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	270					
65 dBA	125					
70 dBA	58					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

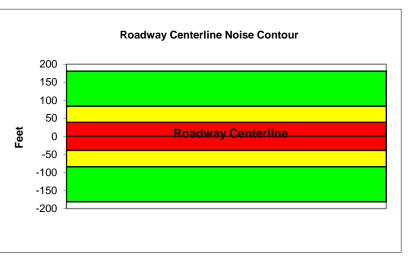


		l Highway Adn Noise Predict					
Project Name:				Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Corral Hollow Road						
Road Segment:	South of Spine Roa	d					
P	ROJECT DATA		5	SITE DATA			
Centerline Dist to Barr	ier:	0	Road Grade:		0		
Barrier (0=wall, 1= ber	rm):	0	Average Dail	y Traffic:	11240		
Receiver Barrier Dist:		0	Peak Hour T	raffic:	1124		
Centerline Dist. To Ob	server: 10	00	Vehicle Spee	ed:	50		
Barrier Near Lane CL	Dist:	0	Centerline Se	eparation:	24		
Barrier Far lane CL Dis	st:	0		NC	ISE INPUT	S	
Pad Elevation:	0	.5	Site conditior	ns:SOFT SI	TE		
Road Elevation:		0	FLEET MIX				
Observer Height (abov	ve grade): 5	.5	Туре	Day	Evening	Night	Daily
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View	: <b>-90</b>	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0					
Medium Trucks:	2	.3					
Heavy Trucks:		8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	52.1	60.8	59.0	53.0	61.6	62.2	
Medium Trucks:	59.7	51.7	45.3	43.7	52.2	52.4	
Heavy Trucks:	64.0	52.0	43.0	44.2	53.6	53.7	
Vehicle Noise:	66.3	61.9	59.4	54.1	62.7	63.2	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	181				
65 dBA	84				
70 dBA	39				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

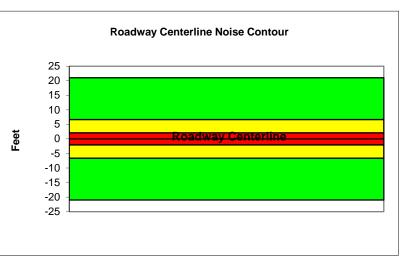


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Chrisman Road							
Road Segment:	North of Eleventh	Street						
	PROJECT DATA					SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	1220		
Receiver Barrier Di	st:	0		Peak Hour T	raffic:	122		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	35		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	W:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	40.9	49.7	47.9	41.8	50.4	51.0	
Medium Trucks:	50.6	42.5	36.1	34.6	43.1	43.3	
Heavy Trucks:	55.8	43.9	34.8	36.0	45.9	46.1	
Vehicle Noise:	58.3	51.6	48.4	43.7	52.3	52.8	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	21				
65 dBA	7				
70 dBA	2				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

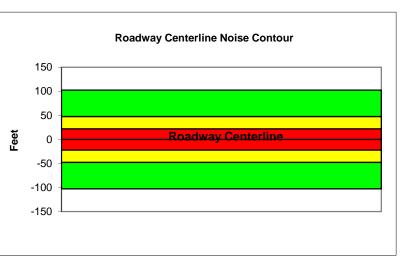


		Federal High							
Project Name:	Tracy Hills	EIR			Scenario:	Existing Plu	us Project		
Analyst:	Ryan Chie	ne			Job #:	135721			
Roadway:	Chrisman	Road							
Road Segment:	Eleventh S	Street to Linne R	oad						
F	PROJECT D/	ATA			5	SITE DATA			
Centerline Dist to Bar	rrier:	0		Road Grade:		0			
Barrier (0=wall, 1= be	erm):	0		Average Dail	y Traffic:	6225			
Receiver Barrier Dist:	:	0		Peak Hour T	raffic:	622.5			
Centerline Dist. To O	bserver:	100		Vehicle Speed:		45			
Barrier Near Lane CL	Dist:	0		Centerline Separation: 24					
Barrier Far lane CL D	)ist:	0		NOISE INPUTS					
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	TE			
Road Elevation:		0		FLEET MIX					
Observer Height (abo	ove grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 9	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOL	JRCE ELEV	ATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.2	56.9	55.2	49.1	57.7	58.3
Medium Trucks:	56.4	48.4	42.0	40.4	48.9	49.1
Heavy Trucks:	61.0	49.0	40.0	41.2	50.7	50.9
Vehicle Noise:	63.3	58.3	55.5	50.4	59.0	59.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	103					
65 dBA	48					
70 dBA	22					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

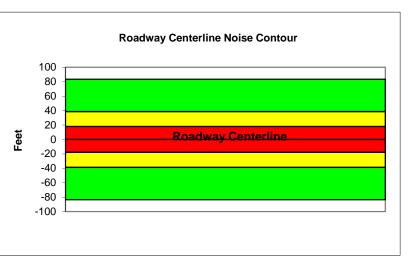


			ninistration R on Model (C					
Project Name:	Tracy Hills EIR		-	Scenario:	Existing Plu	us Project		
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Chrisman Road							
Road Segment:	South of Linne Road							
PR	OJECT DATA			S	SITE DATA			
Centerline Dist to Barrie	er: 0		Road Grade:		0			
Barrier (0=wall, 1= bern	n): <b>0</b>		Average Dail		2760			
Receiver Barrier Dist:	0		Peak Hour T	raffic:	276			
Centerline Dist. To Obs	erver: 100		Vehicle Speed:		55			
Barrier Near Lane CL D	oist: 0		Centerline Separation: 24					
Barrier Far lane CL Dist	t: <b>O</b>		NOISE INPUTS					
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΓE			
Road Elevation:	0		FLEET MIX					
Observer Height (above	e grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUR	CE ELEVATIONS (Feet	:)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.1	55.9	54.1	48.1	56.7	57.3
Medium Trucks:	54.3	46.2	39.8	38.3	46.7	47.0
Heavy Trucks:	58.2	46.3	37.2	38.5	47.7	47.8
Vehicle Noise:	60.5	56.9	54.4	49.0	57.6	58.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	83					
65 dBA	39					
70 dBA	18					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

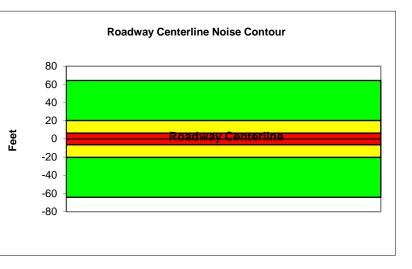


				ninistration F ion Model (C					
Project Name:	Tracy Hills EIR				Scenario:	Existing Plu	us Project		
Analyst:	Ryan Chiene				Job #:	135721			
Roadway:	MacArthur Drive								
Road Segment:	Linne Road to Va	lpico Road							
	PROJECT DATA				S	SITE DATA			
Centerline Dist to E	Barrier	0		Road Grade:		0			
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	2739			
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	273.9			
Centerline Dist. To	Observer:	100		Vehicle Speed:		40			
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	18			
Barrier Far lane CL	. Dist:	0		NOISE INPUTS					
Pad Elevation:		0.5		Site condition	is HARD SI	TE			
Road Elevation:		0		FLEET MIX					
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft Vi	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE S	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	46.2	55.0	53.2	47.1	55.7	56.3	
Medium Trucks:	55.1	47.1	40.7	39.1	47.6	47.8	
Heavy Trucks:	60.0	48.0	39.0	40.2	49.9	50.0	
Vehicle Noise:	62.3	56.5	53.6	48.7	57.2	57.7	

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	64				
65 dBA	20				
70 dBA	6				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

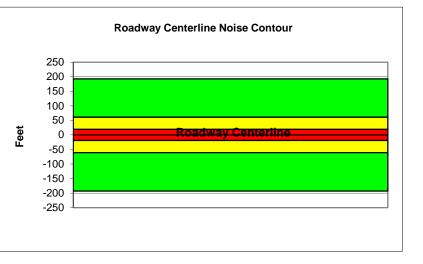


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR			Scenario:	Existing Pl	us Project			
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	MacArthur Drive								
Road Segment:	Valpico Road to Wes	t Schulte Road							
	PROJECT DATA			5	SITE DATA				
Centerline Dist to Ba	arrier	0	Road Grade:		0				
Barrier (0=wall, 1= b	erm):	0	Average Dail	y Traffic:	6202				
Receiver Barrier Dis	t:	0	Peak Hour T	raffic:	620.2				
Centerline Dist. To C	Observer: 10	)0	Vehicle Speed:		45				
Barrier Near Lane C	L Dist:	0	Centerline Se	eparation:	34				
Barrier Far lane CL	Dist:	0		NC	ISE INPUT	S			
Pad Elevation:	0	.5	Site condition	ns HARD SI	TE				
Road Elevation:		0	FLEET MIX						
Observer Height (ab	ove grade):	0	Туре	Day	Evening	Night	Daily		
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SO	URCE ELEVATIONS	6 (Feet)	Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:		0							
Medium Trucks:	2	.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	50.9	59.7	57.9	51.8	60.5	61.1		
Medium Trucks:	59.2	51.1	44.7	43.2	51.7	51.9		
Heavy Trucks:	63.7	51.8	42.7	43.9	53.5	53.6		
Vehicle Noise:	66.1	61.0	58.3	53.1	61.7	62.2		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	193						
65 dBA	61						
70 dBA	19						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

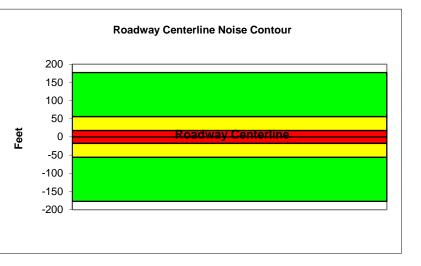


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name: T	racy Hills EIR			Scenario:	Existing Pl	us Project			
Analyst: F	Ryan Chiene			Job #:	135721				
Roadway: N	AcArthur Drive								
Road Segment: V	Vest Schulte Road to	<b>Eleventh Street</b>							
F	PROJECT DATA			5	SITE DATA				
Centerline Dist to Bar	rrier	0	Road Grade:		0				
Barrier (0=wall, 1= be	erm):	0	Average Dail	y Traffic:	7567				
Receiver Barrier Dist	: (	0	Peak Hour T	raffic:	756.7				
Centerline Dist. To O	bserver: 100	0	Vehicle Speed:		40				
Barrier Near Lane CL	Dist:	0	Centerline Se	eparation:	24				
Barrier Far lane CL D	Dist:	0	NOISE INPUTS						
Pad Elevation:	0.	5	Site condition	ns HARD SI	TE				
Road Elevation:	(	)	FLEET MIX						
Observer Height (abo	ove grade):	)	Туре	Day	Evening	Night	Daily		
Barrier Height:	(	0	Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOU	JRCE ELEVATIONS	(Feet)	Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:		0							
Medium Trucks:	2.3	3							
Heavy Trucks:	8	3							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	50.5	59.3	57.5	51.4	60.0	60.6		
Medium Trucks:	59.4	51.4	45.0	43.4	51.9	52.1		
Heavy Trucks:	64.3	52.3	43.3	44.5	54.2	54.3		
Vehicle Noise:	66.7	60.8	57.9	53.0	61.5	62.0		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	177					
65 dBA	56					
70 dBA	18					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

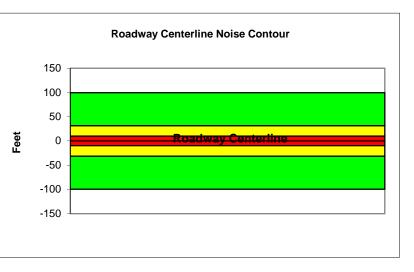


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)										
Project Name:	Tracy Hills EIR			-	Scenario:	Existing Plu	us Project			
Analyst:	Ryan Chiene				Job #:	135721				
Roadway:	MacArthur Drive									
Road Segment:	North of Eleventh St	reet								
	PROJECT DATA				S	SITE DATA				
Centerline Dist to B	arrier	0		Road Grade:		0				
Barrier (0=wall, 1= I	perm):	0		Average Dail	y Traffic:	4244				
<b>Receiver Barrier Dis</b>	st:	0		Peak Hour T	raffic:	424.4				
Centerline Dist. To	Observer: 1	00		Vehicle Spee	ed:	40				
Barrier Near Lane C	CL Dist:	0		Centerline Se	eparation:	24				
Barrier Far lane CL	Dist:	0		NOISE INPUTS						
Pad Elevation:		0.5		Site condition	ns <b>HARD SI</b>	TE				
Road Elevation:		0		FLEET MIX						
Observer Height (al	bove grade):	0		Туре	Day	Evening	Night	Daily		
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View	:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SC	DURCE ELEVATION	S (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:		0								
Medium Trucks:	:	2.3								
Heavy Trucks:		8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	48.0	56.7	55.0	48.9	57.5	58.1		
Medium Trucks:	56.9	48.9	42.5	40.9	49.4	49.6		
Heavy Trucks:	61.8	49.8	40.8	42.0	51.7	51.8		
Vehicle Noise:	64.1	58.3	55.4	50.5	59.0	59.5		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	99					
<mark>65 dBA</mark>	31					
70 dBA	10					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

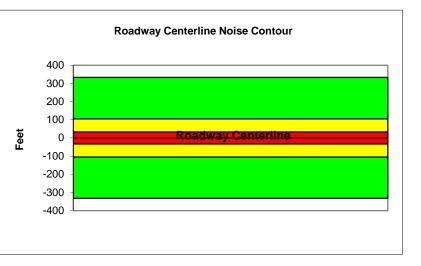


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR			Scenario:	Existing Pl	us Project		
Analyst:	Ryan Chiene			Job #:	135721	-		
Roadway:	Tracy Boulevard							
Road Segment:	North of Eleventh Str	reet						
	PROJECT DATA			S	SITE DATA			
Centerline Dist to Ba	arrier	0	Road Grade:		0			
Barrier (0=wall, 1= b	erm):	0	Average Dail	y Traffic:	19300			
Receiver Barrier Dis	t:	0	Peak Hour T	raffic:	1930			
Centerline Dist. To C	Observer: 1	00	Vehicle Spee	ed:	35			
Barrier Near Lane C	L Dist:	0	Centerline Se	eparation:	32			
Barrier Far lane CL	Dist:	0		NO	ISE INPUT	S		
Pad Elevation:	0	.5	Site condition	ns HARD SI	TE			
Road Elevation:		0	FLEET MIX					
Observer Height (ab	ove grade):	0	Туре	Day	Evening	Night	Daily	
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SO	URCE ELEVATION	S (Feet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0						
Medium Trucks:	2	3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	52.7	61.5	59.7	53.6	62.3	62.9	
Medium Trucks:	62.5	54.4	48.0	46.4	54.9	55.2	
Heavy Trucks:	67.7	55.7	46.7	47.9	57.8	57.9	
Vehicle Noise:	70.1	63.5	60.3	55.6	64.2	64.6	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	333					
65 dBA	105					
70 dBA	33					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

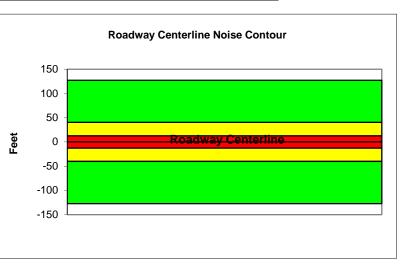


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)							
Project Name: Tr	acy Hills EIR			Scenario:	Existing Plu	us Project	
Analyst: Ry	/an Chiene			Job #:	135721	-	
Roadway: Tr	acy Boulevard						
Road Segment: El	eventh Street to Valpie	co Road					
P	ROJECT DATA			S	SITE DATA		
Centerline Dist to Barr	ier <b>0</b>		Road Grade:		0		
Barrier (0=wall, 1= ber	m): <b>0</b>		Average Dail	y Traffic:	7380		
Receiver Barrier Dist:	0		Peak Hour Ti	raffic:	738		
Centerline Dist. To Ob	server: <b>100</b>		Vehicle Spee	ed:	35		
Barrier Near Lane CL	Dist: 0		Centerline Se	eparation:	38		
Barrier Far lane CL Dis	st: 0			NO	ISE INPUT	S	
Pad Elevation:	0.5		Site condition	ns HARD SI	TE		
Road Elevation:	0		FLEET MIX				
Observer Height (abov	/e grade): 0		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	RCE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	48.5	57.2	55.5	49.4	58.0	58.6	
Medium Trucks:	58.2	50.1	43.7	42.2	50.6	50.9	
Heavy Trucks:	63.4	51.5	42.4	43.6	53.5	53.7	
Vehicle Noise:	65.8	59.2	56.0	51.3	59.9	60.4	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	127					
65 dBA	40					
70 dBA	13					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

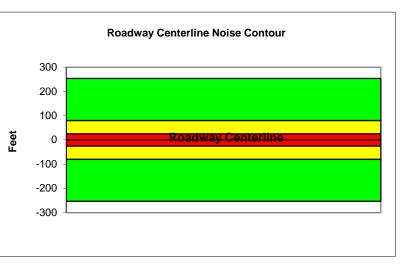


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR				Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene				Job #:	135721	-	
Roadway:	Tracy Boulevard							
Road Segment:	Valpico Road to	Linne Road						
	PROJECT DAT	A			S	SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	10820		
<b>Receiver Barrier Dis</b>	st:	0		Peak Hour Ti	raffic:	1082		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	40		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft V	iew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	DURCE ELEVATI	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	51.8	60.5	58.8	52.7	61.3	61.9	
Medium Trucks:	60.7	52.7	46.3	44.7	53.2	53.4	
Heavy Trucks:	65.6	53.6	44.6	45.8	55.5	55.6	
Vehicle Noise:	67.9	62.1	59.2	54.3	62.8	63.3	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	254						
65 dBA	80						
70 dBA	25						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

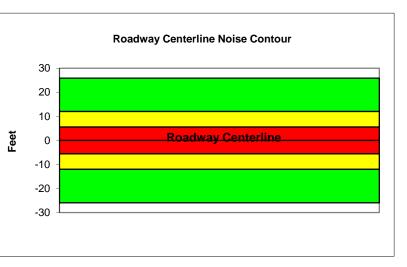


		Federal Highwa Traffic Noise P							
Project Name:	Tracy Hills				Scenario:	Existing Plu	us Project		
Analyst:	Ryan Chie	ne			Job #:	135721	-		
Roadway:	Tracy Bou	levard							
Road Segment:	South of L	inne Road							
	PROJECT D	ATA			S	SITE DATA			
Centerline Dist to Ba	arrier:	0		Road Grade:		0			
Barrier (0=wall, 1= b	erm):	0		Average Dail	y Traffic:	1050			
Receiver Barrier Dist	t:	0		Peak Hour Traffic:		105			
Centerline Dist. To C	Observer:	100		Vehicle Speed:		40			
Barrier Near Lane Cl	L Dist:	0		Centerline Se	eparation:	22			
Barrier Far lane CL	Dist:	0		NOISE INPUTS					
Pad Elevation:		0.5		Site conditions: SOFT SITE					
Road Elevation:		0		FLEET MIX					
Observer Height (ab	ove grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View:	90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SO		ATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	39.0	47.8	46.0	39.9	48.6	49.2	
Medium Trucks:	48.0	39.9	33.5	31.9	40.4	40.7	
Heavy Trucks:	52.8	40.9	31.8	33.0	42.8	42.9	
Vehicle Noise:	55.2	49.4	46.5	41.5	50.1	50.6	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	26					
65 dBA	12					
70 dBA	6					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

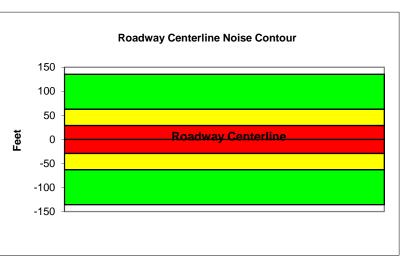


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR		· ·	Scenario:	Existing Plu	us Project			
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	Linne Road								
Road Segment:	West of Tracy Bou	evard							
PI	ROJECT DATA			5	SITE DATA				
Centerline Dist to Barr	ier:	0	Road Grade:		0				
Barrier (0=wall, 1= ber	m):	0	Average Dail	y Traffic:	9450				
Receiver Barrier Dist:		0	Peak Hour T	raffic:	945				
Centerline Dist. To Ob	server: 1	00	Vehicle Speed:		45				
Barrier Near Lane CL	Dist:	0	Centerline Se	eparation:	24				
Barrier Far lane CL Dis	st:	0	NOISE INPUTS						
Pad Elevation:	C	.5	Site condition	ns:SOFT SI	ΤE				
Road Elevation:		0	FLEET MIX						
Observer Height (abov	/e grade): 5	.5	Туре	Day	Evening	Night	Daily		
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View	/: <b>-90</b>	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOU	RCE ELEVATIONS	(Feet)	Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:		0							
Medium Trucks:	2	3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	50.0	58.8	57.0	50.9	59.5	60.1		
Medium Trucks:	58.3	50.2	43.8	42.2	50.7	51.0		
Heavy Trucks:	62.8	50.8	41.8	43.0	52.6	52.7		
Vehicle Noise:	65.1	60.1	57.3	52.2	60.8	61.3		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	136					
65 dBA	63					
70 dBA	29					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

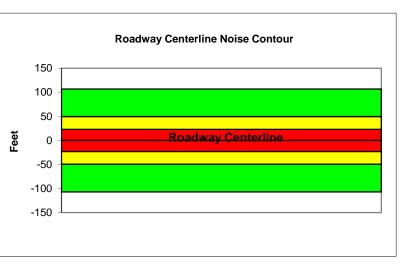


		Highway Adn Noise Predicti						
Project Name:	Tracy Hills EIR			Scenario:	Existing Plu	us Project		
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Linne Road							
Road Segment:	Eastt of Tracy Boule	vard						
PR	ROJECT DATA			5	SITE DATA			
Centerline Dist to Barri	er: C	)	Road Grade:		0			
Barrier (0=wall, 1= berr	m): <b>(</b>	)	Average Dail	y Traffic:	6610			
Receiver Barrier Dist:	(	)	Peak Hour Traffic:		661			
Centerline Dist. To Obs	server: 100	)	Vehicle Speed:		45			
Barrier Near Lane CL	Dist: C	)	Centerline Separat		24			
Barrier Far lane CL Dis	st: C	)	NOISE INPUTS					
Pad Elevation:	0.5	5	Site conditior	ns:SOFT SI	TE			
Road Elevation:	(	)	FLEET MIX					
Observer Height (abov	e grade): 5.5	5	Туре	Day	Evening	Night	Daily	
Barrier Height:	(	)	Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUR	RCE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	(	)						
Medium Trucks:	2.3	3						
Heavy Trucks:	8	3						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	48.4	57.2	55.4	49.3	58.0	58.6	
Medium Trucks:	56.7	48.6	42.3	40.7	49.2	49.4	
Heavy Trucks:	61.2	49.3	40.2	41.5	51.0	51.1	
Vehicle Noise:	63.6	58.5	55.8	50.6	59.2	59.7	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	107						
65 dBA	50						
70 dBA	23						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

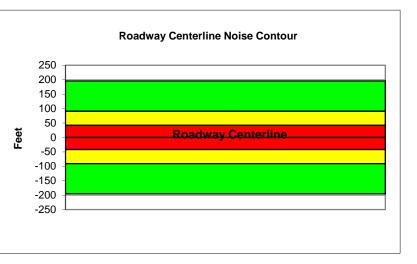


		Federal Highw Traffic Noise F							
Project Name:	Tracy Hills				Scenario:	Existing Plu	us Project		
Analyst:	Ryan Chie	ne			Job #:	135721	-		
Roadway:	Altamont I	Pass Road							
Road Segment:	West of G	reenville Road							
F	PROJECT D	ATA			S	SITE DATA			
Centerline Dist to Bar	rrier:	0		Road Grade:		0			
Barrier (0=wall, 1= be	erm):	0		Average Dail	y Traffic:	16380			
Receiver Barrier Dist	:	0		Peak Hour Traffic:		1638			
Centerline Dist. To O	bserver:	100		Vehicle Speed:		45			
Barrier Near Lane CL	Dist:	0		Centerline Separation:		26			
Barrier Far lane CL D	Dist:	0		NOISE INPUTS					
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	TE			
Road Elevation:		0		FLEET MIX					
Observer Height (abo	ove grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 9	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	52.3	61.1	59.3	53.2	61.9	62.5	
Medium Trucks:	60.6	52.5	46.1	44.6	53.1	53.3	
Heavy Trucks:	65.1	53.2	44.1	45.3	54.9	55.0	
Vehicle Noise:	67.5	62.4	59.7	54.5	63.1	63.6	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	196				
65 dBA	91				
70 dBA	42				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

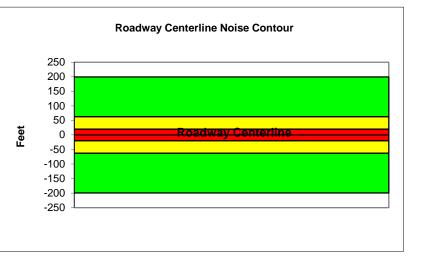


				ninistration R ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene				Job #:	135721	-	
Roadway:	Patterson Pass R	oad						
Road Segment:	West of Greenville	e Road						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to Ba	arrier	0		Road Grade:		0		
Barrier (0=wall, 1= b	perm):	0		Average Dail	y Traffic:	6420		
Receiver Barrier Dis	st:	0		Peak Hour Ti	affic:	642		
Centerline Dist. To	Observer:	100		Vehicle Speed:		45		
Barrier Near Lane C	CL Dist:	0		Centerline Se	eparation:	42		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is <b>HARD SI</b>	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (at	oove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SC	OURCE ELEVATIO	DNS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	50.9	59.7	57.9	51.9	60.5	61.1	
Medium Trucks:	59.2	51.2	44.8	43.2	51.7	51.9	
Heavy Trucks:	63.7	51.8	42.7	44.0	53.5	53.6	
Vehicle Noise:	66.1	61.0	58.3	53.2	61.7	62.2	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	200					
65 dBA	63					
70 dBA	20					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

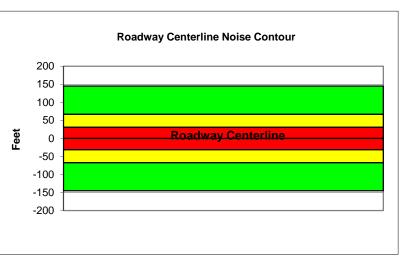


			ninistration F on Model (C				
Project Name:	Tracy Hills EIR			Scenario:	Existing Plu	us Project	
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Tesla Road						
Road Segment:	West of Greenville Road	ł					
PR	OJECT DATA			S	SITE DATA		
Centerline Dist to Barrie	er: 0		Road Grade:		0		
Barrier (0=wall, 1= bern	n): <b>0</b>		Average Dail	y Traffic:	8060		
Receiver Barrier Dist:	0		Peak Hour T	raffic:	806		
Centerline Dist. To Obs	erver: 100		Vehicle Spee	ed:	50		
Barrier Near Lane CL D	ist: 0		Centerline Se	eparation:	24		
Barrier Far lane CL Dist	:: <b>O</b>			NO	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:	0		FLEET MIX				
Observer Height (above	e grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	CE ELEVATIONS (Feet	t)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	50.6	59.4	57.6	51.5	60.2	60.8		
Medium Trucks:	58.3	50.2	43.8	42.3	50.7	51.0		
Heavy Trucks:	62.5	50.6	41.5	42.7	52.1	52.3		
Vehicle Noise:	64.8	60.5	57.9	52.6	61.2	61.7		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	145					
65 dBA	67					
70 dBA	31					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

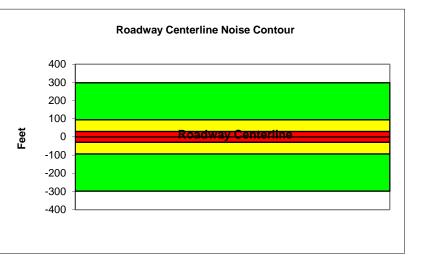


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR				Scenario:	Future			
Analyst:	Ryan Chiene				Job #:	135721			
Roadway:	Lammers Road								
Road Segment:	North of Eleventh	n Street							
	PROJECT DAT	A			S	SITE DATA			
Centerline Dist to B	Barrier	0		Road Grade:		0			
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	12740			
Receiver Barrier Di	st:	0		Peak Hour Ti	affic:	1274			
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40			
Barrier Near Lane	CL Dist:	0		Centerline Se	paration:	24			
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S		
Pad Elevation:		0.5		Site condition	is HARD SI	TE			
Road Elevation:		0			F	LEET MIX			
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft V	iew:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SO	OURCE ELEVATI	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	52.7	61.5	59.7	53.6	62.3	62.9			
Medium Trucks:	61.7	53.6	47.2	45.7	54.2	54.4			
Heavy Trucks:	66.5	54.6	45.5	46.8	56.5	56.6			
Vehicle Noise:	68.9	63.1	60.2	55.2	63.8	64.3			

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	298						
65 dBA	94						
70 dBA	30						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

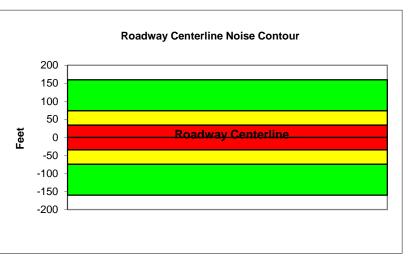


	Federal High Traffic Noise							
Project Name:	Tracy Hills EIR		-	Scenario:	Future			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	_ammers Road							
Road Segment:	/alpico Road to Linne Roa	ad						
PR	OJECT DATA			5	SITE DATA			
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0			
Barrier (0=wall, 1= berm	): <b>0</b>		Average Dail	•	12095			
Receiver Barrier Dist:	0		Peak Hour T	raffic:	1209.5			
Centerline Dist. To Obse	erver: <b>100</b>		Vehicle Speed:		45			
Barrier Near Lane CL Di	ist: 0		Centerline Se	eparation:	24			
Barrier Far lane CL Dist	. <b>O</b>		NOISE INPUTS					
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	TE			
Road Elevation:	0		FLEET MIX					
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	51.1	59.8	58.0	52.0	60.6	61.2		
Medium Trucks:	59.3	51.3	44.9	43.3	51.8	52.0		
Heavy Trucks:	63.9	51.9	42.9	44.1	53.6	53.7		
Vehicle Noise:	66.2	61.1	58.4	53.3	61.9	62.4		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	160					
65 dBA	74					
70 dBA	34					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

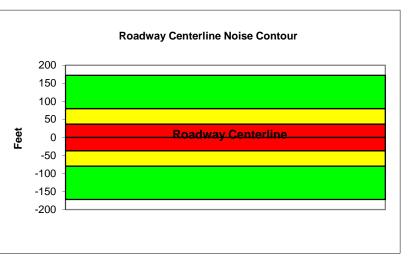


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR		-	Scenario:	Future				
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	_ammers Road								
Road Segment:	inne Road to Spine Road	Ł							
PR	OJECT DATA			5	SITE DATA				
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0				
Barrier (0=wall, 1= berm	): <b>0</b>		Average Dail	y Traffic:	10400				
Receiver Barrier Dist:	0		Peak Hour T	raffic:	1040				
Centerline Dist. To Obse	erver: <b>100</b>		Vehicle Speed:		50				
Barrier Near Lane CL Di	ist: 0		Centerline Se	eparation:	24				
Barrier Far lane CL Dist	. <b>O</b>		NOISE INPUTS						
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE				
Road Elevation:	0		FLEET MIX						
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	51.7	60.5	58.7	52.6	61.3	61.9	
Medium Trucks:	59.4	51.3	44.9	43.4	51.9	52.1	
Heavy Trucks:	63.6	51.7	42.6	43.8	53.2	53.4	
Vehicle Noise:	65.9	61.6	59.0	53.7	62.3	62.8	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	172					
65 dBA	80					
70 dBA	37					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

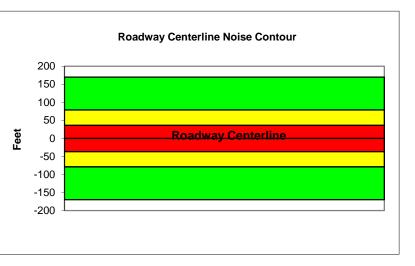


	Federal High Traffic Noise		ninistration R on Model (C				
Project Name:	Tracy Hills EIR		Scenario: Future				
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Lammers Road						
	South of Spine Road						
PR	OJECT DATA			5	SITE DATA		
Centerline Dist to Barrie	er: <b>0</b>		Road Grade:		0		
Barrier (0=wall, 1= bern	n): <b>0</b>		Average Dail	y Traffic:	10200		
Receiver Barrier Dist:	0		Peak Hour T	raffic:	1020		
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Spee	d:	50		
Barrier Near Lane CL D	Dist: 0		Centerline Se	eparation:	24		
Barrier Far lane CL Dis	t: <b>0</b>			NC	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΓE		
Road Elevation:	0			F	LEET MIX		
Observer Height (above	e grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	51.6	60.4	58.6	52.5	61.2	61.8	
Medium Trucks:	59.3	51.2	44.9	43.3	51.8	52.0	
Heavy Trucks:	63.5	51.6	42.5	43.8	53.2	53.3	
Vehicle Noise:	65.8	61.5	58.9	53.6	62.2	62.8	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	170						
65 dBA	79						
70 dBA	37						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

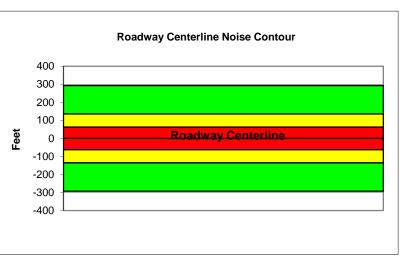


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR				Future				
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	_ammers Road Extension/	/Eleventh	n Street						
Road Segment:	North of I-205								
PR	OJECT DATA			5	SITE DATA				
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0				
Barrier (0=wall, 1= berm	): <b>0</b>		Average Dail	y Traffic:	39700				
Receiver Barrier Dist:	0		Peak Hour Traffic:		3970				
Centerline Dist. To Obse	erver: <b>100</b>		Vehicle Speed:		40				
Barrier Near Lane CL D	ist: 0		Centerline Se	eparation:	64				
Barrier Far lane CL Dist	. <b>O</b>		NOISE INPUTS						
Pad Elevation:	0.5		Site conditions: SOFT SITE						
Road Elevation:	0			F	LEET MIX				
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	53.8	62.6	60.8	54.7	63.4	64.0		
Medium Trucks:	62.8	54.7	48.3	46.8	55.2	55.5		
Heavy Trucks:	67.6	55.7	46.6	47.9	57.6	57.7		
Vehicle Noise:	70.0	64.2	61.3	56.3	64.9	65.4		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	293						
65 dBA	136						
70 dBA	63						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

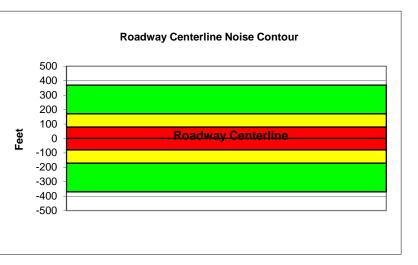


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name: Tra	acy Hills EIR			-	Future				
Analyst: Ry	an Chiene			Job #:	135721				
Roadway: La	mmers Road Extension/Elev	/enth	n Street						
Road Segment: I-2	05 to Lammers Road								
PRO	ECT DATA			S	SITE DATA				
Centerline Dist to Barrier:	0		Road Grade:		0				
Barrier (0=wall, 1= berm):	0		Average Dail	y Traffic:	56400				
Receiver Barrier Dist:	0		Peak Hour Traffic:		5640				
Centerline Dist. To Observ	ver: 100		Vehicle Speed:		40				
Barrier Near Lane CL Dist	: <b>O</b>		Centerline Se	eparation:	64				
Barrier Far lane CL Dist:	0		NOISE INPUTS						
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE				
Road Elevation:	0			F	LEET MIX				
Observer Height (above g	rade): <b>5.5</b>		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOURCE	ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	55.4	64.1	62.3	56.3	64.9	65.5	
Medium Trucks:	64.3	56.2	49.9	48.3	56.8	57.0	
Heavy Trucks:	69.2	57.2	48.2	49.4	59.1	59.2	
Vehicle Noise:	71.5	65.7	62.8	57.8	66.4	66.9	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	369						
65 dBA	171						
70 dBA	80						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

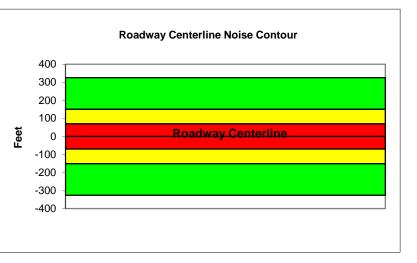


			ninistration F on Model (C				
Project Name: T	racy Hills EIR			Scenario:	Future		
Analyst: R	yan Chiene			Job #:	135721		
Roadway: L	ammers Road Exten	sion/Eleventh	n Street				
Road Segment: L	ammers Road to Cor	ral Hollow Ro	bad				
PRC	JECT DATA			S	SITE DATA		
Centerline Dist to Barrier	: 0		Road Grade:		0		
Barrier (0=wall, 1= berm)	: 0		Average Dail	y Traffic:	46730		
Receiver Barrier Dist:	0		Peak Hour T	raffic:	4673		
Centerline Dist. To Obse	rver: <b>100</b>		Vehicle Spee	ed:	40		
Barrier Near Lane CL Dis	st: <b>0</b>		Centerline Se	eparation:	64		
Barrier Far lane CL Dist:	0			NC	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:	0		FLEET MIX				
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURC	E ELEVATIONS (Fe	et)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.5	63.3	61.5	55.4	64.1	64.7
Medium Trucks:	63.5	55.4	49.0	47.5	56.0	56.2
Heavy Trucks:	68.3	56.4	47.3	48.6	58.3	58.4
Vehicle Noise:	70.7	64.9	62.0	57.0	65.6	66.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CONTOUR
Unmitigated	
60 dBA	326
65 dBA	151
70 dBA	70
Mitigated	
60 dBA	
65 dBA	
70 dBA	

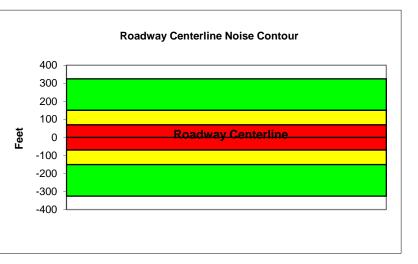


				ninistration F on Model (C				
Project Name:	Tracy Hills EIF				-	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Lammers Roa	d Extension/l	Eleventh	n Street				
Road Segment:	East of Corral	Hollow Road						
PF	ROJECT DATA	l l			S	SITE DATA		
Centerline Dist to Barri	er:	0		Road Grade:		0		
Barrier (0=wall, 1= ber	m):	0		Average Dail	y Traffic:	46510		
Receiver Barrier Dist:		0		Peak Hour T	raffic:	4651		
Centerline Dist. To Ob	server:	100		Vehicle Spee	ed:	40		
Barrier Near Lane CL I	Dist:	0		Centerline Se	eparation:	64		
Barrier Far lane CL Dis	st:	0			-	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0			F	LEET MIX		
Observer Height (abov	e grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft	View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	RCE ELEVATIO	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.5	63.3	61.5	55.4	64.1	64.7
Medium Trucks:	63.5	55.4	49.0	47.4	55.9	56.2
Heavy Trucks:	68.3	56.4	47.3	48.5	58.3	58.4
Vehicle Noise:	70.7	64.9	62.0	57.0	65.6	66.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	325					
65 dBA	151					
70 dBA	70					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

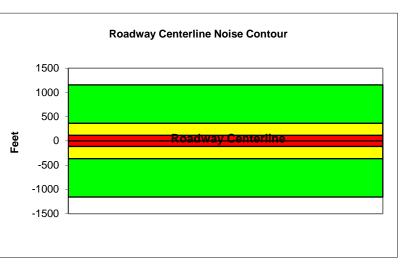


		ederal Highwa raffic Noise P							
Project Name:	Tracy Hills EIR			-	Scenario:	Future			
Analyst:	Ryan Chiene				Job #:	135721			
Roadway:	Corral Hollow Roa	ad							
Road Segment:	North of Eleventh	Street							
	PROJECT DATA	L .			S	SITE DATA			
Centerline Dist to E	Barrier	0		Road Grade:		0			
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	49330			
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	4933			
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40			
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	64			
Barrier Far lane CL	. Dist:	0			NO	ISE INPUT	S		
Pad Elevation:		0.5		Site condition	is <b>HARD SI</b>	TE			
Road Elevation:		0			FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775			0.9742	
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE S	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.0	66.8	65.0	58.9	67.6	68.2
Medium Trucks:	67.0	58.9	52.5	50.9	59.4	59.7
Heavy Trucks:	71.8	59.9	50.8	52.0	61.8	61.9
Vehicle Noise:	74.2	68.4	65.4	60.5	69.1	69.6

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	1157					
65 dBA	366					
70 dBA	116					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

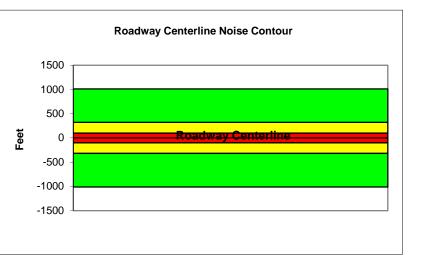


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Corral Hollow Roa	ad						
Road Segment:	Eleventh Street to	New Schulte	Road					
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	43140		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	4314		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	60		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATION	DNS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	57.5	66.3	64.5	58.4	67.0	67.6	
Medium Trucks:	66.4	58.4	52.0	50.4	58.9	59.1	
Heavy Trucks:	71.3	59.3	50.3	51.5	61.2	61.3	
Vehicle Noise:	73.7	67.8	64.9	60.0	68.6	69.0	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	1012					
65 dBA	320					
70 dBA	101					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

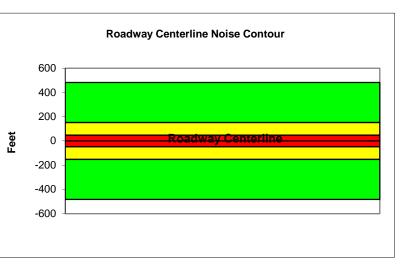


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				-	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Corral Hollow Roa	ad						
Road Segment:	New Schulte Roa	d to Linne Ro	bad					
	PROJECT DATA	l l			S	ITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	20600		
Receiver Barrier Di	st:	0		Peak Hour T	raffic:	2060		
Centerline Dist. To	Observer:	100		Vehicle Speed:		40		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	60		
Barrier Far lane CL	. Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vi	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	54.3	63.1	61.3	55.2	63.8	64.4	
Medium Trucks:	63.2	55.2	48.8	47.2	55.7	55.9	
Heavy Trucks:	68.1	56.1	47.1	48.3	58.0	58.1	
Vehicle Noise:	70.4	64.6	61.7	56.8	65.3	65.8	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOIS	SE CONTOUR
Unmitigated	
60 dBA	483
65 dBA	153
70 dBA	48
Mitigated	
60 dBA	
65 dBA	
70 dBA	

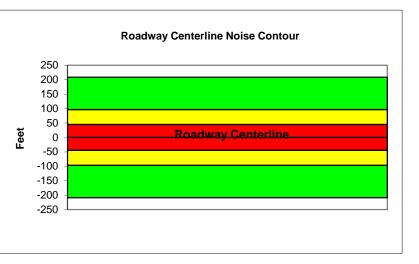


	Federal High Traffic Noise							
Project Name:	Tracy Hills EIR				Future			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Corral Hollow Road							
Road Segment:	Linne Road to Spine Road	b						
PR	OJECT DATA			S	SITE DATA			
Centerline Dist to Barrie	er: <b>0</b>		Road Grade:		0			
Barrier (0=wall, 1= bern	n): <b>0</b>		Average Dail	y Traffic:	13905			
Receiver Barrier Dist:	0		Peak Hour Traffic:		1390.5			
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Speed:		50			
Barrier Near Lane CL D	oist: 0		Centerline Separation:		24			
Barrier Far lane CL Dist	t: <b>O</b>		NOISE INPUTS					
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE			
Road Elevation:	0		FLEET MIX					
Observer Height (above	e grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	53.0	61.8	60.0	53.9	62.5	63.1		
Medium Trucks:	60.7	52.6	46.2	44.6	53.1	53.3		
Heavy Trucks:	64.9	52.9	43.9	45.1	54.5	54.6		
Vehicle Noise:	67.2	62.9	60.3	55.0	63.6	64.1		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	209					
65 dBA	97					
70 dBA	45					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

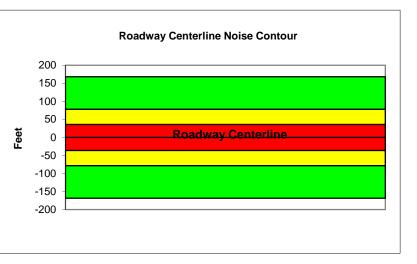


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR		-	Scenario:	Future				
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	Corral Hollow Road								
Road Segment:	South of Spine Road								
PR	OJECT DATA			5	SITE DATA				
Centerline Dist to Barrie	er: <b>0</b>		Road Grade:		0				
Barrier (0=wall, 1= bern	n): <b>O</b>		Average Dail	y Traffic:	10060				
Receiver Barrier Dist:	0		Peak Hour Traffic: 1006						
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Speed:		50				
Barrier Near Lane CL D	oist: 0		Centerline Se	eparation:	24				
Barrier Far lane CL Dist	t: <b>O</b>			NC	ISE INPUT	S			
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE				
Road Elevation:	0			F	LEET MIX				
Observer Height (above	e grade): 5.5		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	51.6	60.4	58.6	52.5	61.1	61.7	
Medium Trucks:	59.2	51.2	44.8	43.2	51.7	51.9	
Heavy Trucks:	63.5	51.5	42.5	43.7	53.1	53.2	
Vehicle Noise:	65.8	61.4	58.9	53.6	62.2	62.7	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	168						
65 dBA	78						
70 dBA	36						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

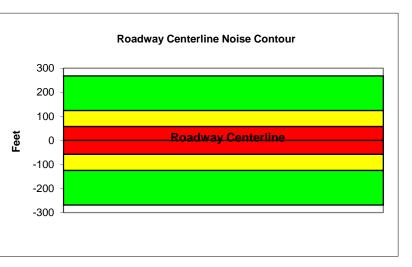


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name: T	racy Hills EIR		-	Scenario:	Future				
Analyst: F	Ryan Chiene			Job #:	135721				
Roadway: C	Chrisman Road								
Road Segment: N	Jorth of I-205								
PRC	DJECT DATA			5	SITE DATA				
Centerline Dist to Barrier	т <b>О</b>		Road Grade:		0				
Barrier (0=wall, 1= berm	): 0		Average Dail	y Traffic:	26300				
Receiver Barrier Dist:	0		Peak Hour Traffic:		2630				
Centerline Dist. To Obse	erver: <b>100</b>		Vehicle Speed:		45				
Barrier Near Lane CL Di	st: 0		Centerline Se	eparation:	24				
Barrier Far lane CL Dist:	0			NC	ISE INPUT	S			
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΓE				
Road Elevation:	0			F	LEET MIX				
Observer Height (above	grade): <b>5.5</b>		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	54.4	63.2	61.4	55.3	64.0	64.6	
Medium Trucks:	62.7	54.6	48.3	46.7	55.2	55.4	
Heavy Trucks:	67.2	55.3	46.2	47.5	57.0	57.1	
Vehicle Noise:	69.6	64.5	61.8	56.6	65.2	65.7	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	268						
65 dBA	125						
70 dBA	58						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

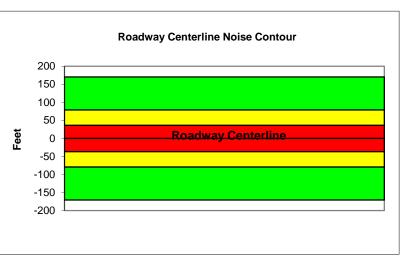


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)							
Project Name:	Fracy Hills EIR			Scenario:	Future		
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Chrisman Road						
Road Segment:	-205 Freeway to Elev	enth Street					
PR	OJECT DATA			S	SITE DATA		
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0		
Barrier (0=wall, 1= berm	): 0		Average Dail	y Traffic:	23995		
Receiver Barrier Dist:	0		Peak Hour Traffic: 2399.5				
Centerline Dist. To Obse	erver: <b>100</b>		Vehicle Speed:		35		
Barrier Near Lane CL Di	ist: 0		Centerline Se	eparation:	24		
Barrier Far lane CL Dist	. 0			NC	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:	0			F	LEET MIX		
Observer Height (above	grade): <b>5.5</b>		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	CE ELEVATIONS (Fe	eet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	50.9	59.7	57.9	51.8	60.4	61.1	
Medium Trucks:	60.6	52.5	46.2	44.6	53.1	53.3	
Heavy Trucks:	65.8	53.9	44.8	46.0	56.0	56.1	
Vehicle Noise:	68.3	61.6	58.4	53.7	62.3	62.8	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	170						
65 dBA	79						
70 dBA	37						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

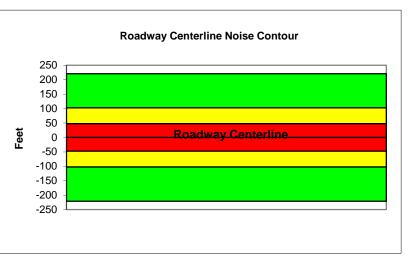


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)										
Project Name: T	racy Hills EIR			-	Future					
Analyst: F	tyan Chiene			Job #:	135721					
Roadway: C	Chrisman Road									
Road Segment: E	leventh Street to Valpico Road	d								
PRC	JECT DATA			S	SITE DATA					
Centerline Dist to Barrier	: 0		Road Grade:		0					
Barrier (0=wall, 1= berm)	.: <b>O</b>		Average Dail	y Traffic:	19640					
Receiver Barrier Dist:	0		Peak Hour Traffic:		1964					
Centerline Dist. To Obse	rver: <b>100</b>		Vehicle Speed:		45					
Barrier Near Lane CL Dis	st: <b>0</b>		Centerline Separation:		24					
Barrier Far lane CL Dist:	0			NC	ISE INPUT	S				
Pad Elevation:	0.5		Site condition	ns:SOFT SI	ΤE					
Road Elevation:	0			F	LEET MIX					
Observer Height (above	grade): <b>5.5</b>		Туре	Day	Evening	Night	Daily			
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742			
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184			
NOISE SOURC	E ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074			
Autos:	0									
Medium Trucks:	2.3									
Heavy Trucks:	8									

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	53.2	61.9	60.2	54.1	62.7	63.3		
Medium Trucks:	61.4	53.4	47.0	45.4	53.9	54.1		
Heavy Trucks:	66.0	54.0	45.0	46.2	55.7	55.9		
Vehicle Noise:	68.3	63.2	60.5	55.4	64.0	64.5		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	221						
65 dBA	102						
70 dBA	48						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

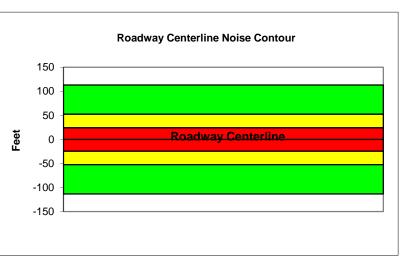


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)										
Project Name:	Tracy Hills EIR		-	Scenario:	Future					
Analyst:	Ryan Chiene			Job #:	135721					
Roadway:	Chrisman Road									
Road Segment:	South of Valpico Road									
PR	OJECT DATA			5	SITE DATA					
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0					
Barrier (0=wall, 1= berm	i): <b>O</b>		Average Dail	y Traffic:	7210					
Receiver Barrier Dist:	0		Peak Hour Traffic:		721					
Centerline Dist. To Obse	erver: <b>100</b>		Vehicle Spee	ed:	45					
Barrier Near Lane CL D	ist: <b>0</b>		Centerline Se	eparation:	24					
Barrier Far lane CL Dist	: <b>O</b>			NC	ISE INPUT	S				
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE					
Road Elevation:	0			F	LEET MIX					
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily			
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742			
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184			
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074			
Autos:	0									
Medium Trucks:	2.3									
Heavy Trucks:	8									

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	48.8	57.6	55.8	49.7	58.4	59.0		
Medium Trucks:	57.1	49.0	42.6	41.1	49.5	49.8		
Heavy Trucks:	61.6	49.7	40.6	41.8	51.4	51.5		
Vehicle Noise:	63.9	58.9	56.2	51.0	59.6	60.1		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	113						
65 dBA	53						
70 dBA	24						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

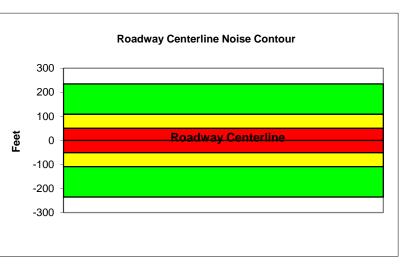


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)										
Project Name:	Tracy Hills EIR			-	Future					
Analyst:	Ryan Chiene			Job #:	135721					
Roadway:	_ammers Road									
Road Segment:	Eleventh Street to Old S	Schulte Roa	d							
PR	OJECT DATA			S	SITE DATA					
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0					
Barrier (0=wall, 1= berm	i): <b>0</b>		Average Dail	y Traffic:	28680					
Receiver Barrier Dist:	0		Peak Hour Traffic:		2868					
Centerline Dist. To Obs	erver: 100		Vehicle Speed:		40					
Barrier Near Lane CL D	ist: 0		Centerline Separation:		64					
Barrier Far lane CL Dist	: <b>0</b>			NC	ISE INPUT	S				
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE					
Road Elevation:	0			F	LEET MIX					
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily			
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742			
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184			
NOISE SOUR	CE ELEVATIONS (Fee	et)	Heavy Truck	0.865	0.027	0.108	0.0074			
Autos:	0									
Medium Trucks:	2.3									
Heavy Trucks:	8									

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	52.4	61.2	59.4	53.3	62.0	62.6		
Medium Trucks:	61.4	53.3	46.9	45.3	53.8	54.1		
Heavy Trucks:	66.2	54.3	45.2	46.4	56.2	56.3		
Vehicle Noise:	68.6	62.8	59.9	54.9	63.5	64.0		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	235						
65 dBA	109						
70 dBA	51						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

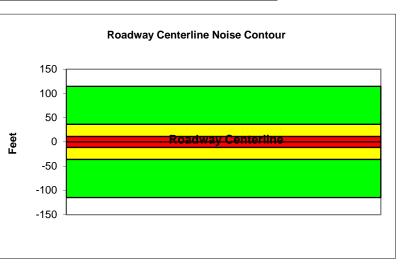


		ederal Highw raffic Noise F						
Project Name:	Tracy Hills EIR				Scenario:	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	Linne Road to Va	lpico Road						
	PROJECT DATA	l			S	SITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	4895		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	489.5		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	18		
Barrier Far lane CL	. Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vi	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.7	57.5	55.7	49.6	58.3	58.9
Medium Trucks:	57.6	49.6	43.2	41.6	50.1	50.3
Heavy Trucks:	62.5	50.6	41.5	42.7	52.4	52.6
Vehicle Noise:	64.9	59.1	56.1	51.2	59.8	60.2

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	115					
65 dBA	36					
70 dBA	11					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

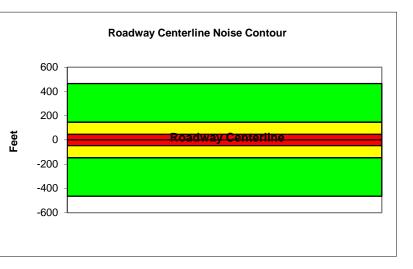


		deral Highway affic Noise Pro						
Project Name:	Tracy Hills EIR				Scenario:	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	Valpico Road to W	est Schulte Ro	bad					
	PROJECT DATA				S	ITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	/ Traffic:	14950		
<b>Receiver Barrier Di</b>	st:	0		Peak Hour Tr	affic:	1495		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	45		
Barrier Near Lane (	CL Dist:	0		Centerline Se	paration:	34		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	s HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SC	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.7	63.5	61.7	55.6	64.3	64.9
Medium Trucks:	63.0	54.9	48.6	47.0	55.5	55.7
Heavy Trucks:	67.5	55.6	46.5	47.8	57.3	57.4
Vehicle Noise:	69.9	64.8	62.1	56.9	65.5	66.0

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	465					
65 dBA	147					
70 dBA	47					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

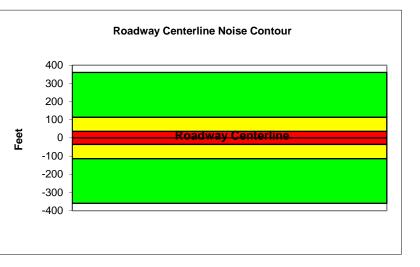


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	West Schulte Roa	ad to Eleventh	n Street					
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	15380		
Receiver Barrier Di	st:	0		Peak Hour T	raffic:	1538		
Centerline Dist. To	Observer:	100		Vehicle Spee	ed:	40		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	DNS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.6	62.3	60.5	54.5	63.1	63.7
Medium Trucks:	62.5	54.4	48.1	46.5	55.0	55.2
Heavy Trucks:	67.4	55.4	46.4	47.6	57.3	57.4
Vehicle Noise:	69.7	63.9	61.0	56.0	64.6	65.1

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	360					
65 dBA	114					
70 dBA	36					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

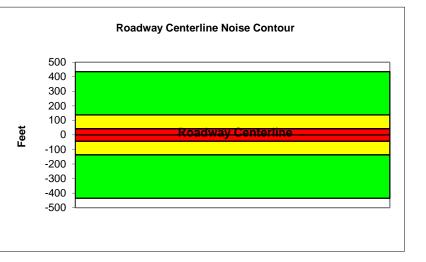


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	North of Eleventh	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	18590		
Receiver Barrier Di	st:	0		Peak Hour T	raffic:	1859		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	. Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	is <b>HARD SI</b>	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.4	63.2	61.4	55.3	63.9	64.5
Medium Trucks:	63.3	55.3	48.9	47.3	55.8	56.0
Heavy Trucks:	68.2	56.2	47.2	48.4	58.1	58.2
Vehicle Noise:	70.6	64.7	61.8	56.9	65.4	65.9

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOI	SE CONTOUR
Unmitigated	
60 dBA	435
65 dBA	138
70 dBA	44
Mitigated	
60 dBA	
65 dBA	
70 dBA	

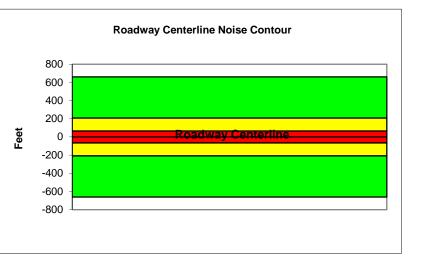


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Tracy Boulevard							
Road Segment:	North of Eleventh	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	38360		
Receiver Barrier Di	st:	0		Peak Hour T	raffic:	3836		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	35		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	32		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	DNS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.7	64.5	62.7	56.6	65.3	65.9
Medium Trucks:	65.4	57.4	51.0	49.4	57.9	58.1
Heavy Trucks:	70.7	58.7	49.7	50.9	60.8	60.9
Vehicle Noise:	73.1	66.5	63.3	58.6	67.2	67.6

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	661					
65 dBA	209					
70 dBA	66					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

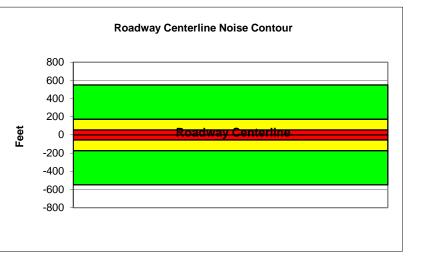


				ninistration R ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Tracy Boulevard							
Road Segment:	Eleventh Street to	o Valpico Ro	bad					
	PROJECT DATA				S	ITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	31900		
Receiver Barrier Di	st:	0		Peak Hour Ti	affic:	3190		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	35		
Barrier Near Lane (	CL Dist:	0		Centerline Se	paration:	38		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vi	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.8	63.6	61.8	55.7	64.4	65.0
Medium Trucks:	64.5	56.5	50.1	48.5	57.0	57.2
Heavy Trucks:	69.8	57.8	48.8	50.0	59.9	60.0
Vehicle Noise:	72.2	65.6	62.4	57.7	66.3	66.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	550					
65 dBA	174					
70 dBA	55					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

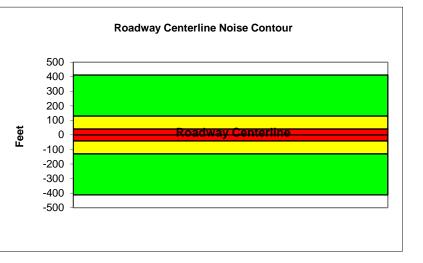


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR				Scenario:	Future			
Analyst:	Ryan Chiene				Job #:	135721			
Roadway:	Tracy Boulevard								
Road Segment:	Valpico Road to Li	nne Road							
	PROJECT DATA				S	ITE DATA			
Centerline Dist to E	Barrier	0		Road Grade:		0			
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	17595			
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	1759.5			
Centerline Dist. To	Observer:	100		Vehicle Speed:		40			
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	40			
Barrier Far lane CL	. Dist:	0			NO	ISE INPUT	S		
Pad Elevation:		0.5		Site condition	is <b>HARD SI</b>	TE			
Road Elevation:		0			F	LEET MIX			
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft Vie	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE S	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	53.9	62.7	60.9	54.8	63.4	64.0		
Medium Trucks:	62.8	54.8	48.4	46.8	55.3	55.5		
Heavy Trucks:	67.7	55.7	46.7	47.9	57.6	57.7		
Vehicle Noise:	70.1	64.2	61.3	56.4	64.9	65.4		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

CENTERLINE NOIS	SE CONTOUR
Unmitigated	
60 dBA	412
65 dBA	130
70 dBA	41
Mitigated	
60 dBA	
65 dBA	
70 dBA	

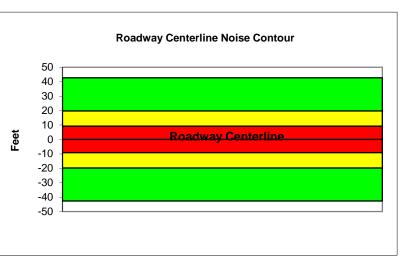


		Highway Adn Ioise Predicti					
Project Name:	Tracy Hills EIR			Scenario:	Future		
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Tracy Boulevard						
Road Segment:	South of Linne Road						
PR	ROJECT DATA			5	SITE DATA		
Centerline Dist to Barrie	er: C	)	Road Grade:		0		
Barrier (0=wall, 1= berr	n): <b>C</b>		Average Dail	y Traffic:	2210		
Receiver Barrier Dist:	C		Peak Hour T	raffic:	221		
Centerline Dist. To Obs	server: 100		Vehicle Spee	ed:	40		
Barrier Near Lane CL	Dist: C		Centerline Se	eparation:	22		
Barrier Far lane CL Dis	it: C	)		NC	ISE INPUT	S	
Pad Elevation:	0.5	5	Site conditior	ns:SOFT SI	ΤE		
Road Elevation:	C			F	LEET MIX		
Observer Height (abov	e grade): 5.5	5	Туре	Day	Evening	Night	Daily
Barrier Height:	C	)	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	RCE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	C	)					
Medium Trucks:	2.3	5					
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	42.3	51.0	49.2	43.2	51.8	52.4		
Medium Trucks:	51.2	43.1	36.8	35.2	43.7	43.9		
Heavy Trucks:	56.1	44.1	35.1	36.3	46.0	46.1		
Vehicle Noise:	58.4	52.6	49.7	44.7	53.3	53.8		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE CONTOUR					
Unmitigated					
60 dBA	43				
65 dBA	20				
70 dBA	9				
Mitigated					
60 dBA					
65 dBA					
70 dBA					

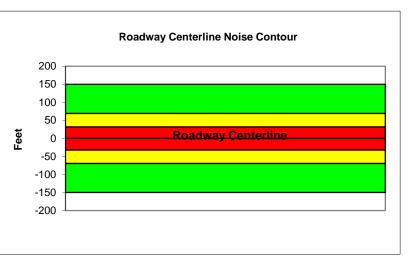


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR				Future			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Linne Road							
Road Segment:	West of Corral Hollow Road	d						
PR	OJECT DATA			S	SITE DATA			
Centerline Dist to Barrie	er: <b>O</b>		Road Grade:		0			
Barrier (0=wall, 1= berm	n): <b>O</b>		Average Dail	y Traffic:	10980			
Receiver Barrier Dist:	0		Peak Hour Traffic: 109					
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Speed:		45			
Barrier Near Lane CL D	ist: 0		Centerline Separation:		24			
Barrier Far lane CL Dist	:: <b>O</b>		NOISE INPUTS					
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE			
Road Elevation:	0		FLEET MIX					
Observer Height (above	e grade): <b>5.5</b>		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	50.6	59.4	57.6	51.5	60.2	60.8		
Medium Trucks:	58.9	50.8	44.5	42.9	51.4	51.6		
Heavy Trucks:	63.4	51.5	42.4	43.7	53.2	53.3		
Vehicle Noise:	65.8	60.7	58.0	52.8	61.4	61.9		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	150					
65 dBA	70					
70 dBA	32					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

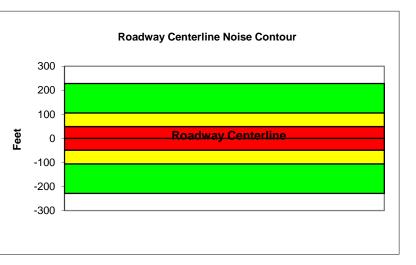


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR			Scenario:	Future				
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	_inne Road								
Road Segment:	Corral Hollow Road to	o Tracy Boule	vard						
PR	OJECT DATA			5	SITE DATA				
Centerline Dist to Barrie	r: 0		Road Grade:		0				
Barrier (0=wall, 1= berm	i): <b>O</b>		Average Dail	y Traffic:	20685				
Receiver Barrier Dist:	0		Peak Hour Traffic:		2068.5				
Centerline Dist. To Obse	erver: 100		Vehicle Speed:		45				
Barrier Near Lane CL D	ist: 0		Centerline Separation:		24				
Barrier Far lane CL Dist	: 0	)		NC	ISE INPUT	S			
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE				
Road Elevation:	0	)		F	LEET MIX				
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily		
Barrier Height:	0	)	Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOUR	CE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	53.4	62.2	60.4	54.3	62.9	63.5		
Medium Trucks:	61.7	53.6	47.2	45.6	54.1	54.4		
Heavy Trucks:	66.2	54.2	45.2	46.4	56.0	56.1		
Vehicle Noise:	68.5	63.5	60.7	55.6	64.2	64.7		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	228					
65 dBA	106					
70 dBA	49					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

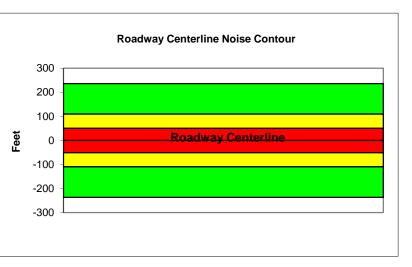


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR			Scenario:	Future				
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	Lammers Road								
Road Segment:	Old Schulte Road to \	/alpico Road							
PR	ROJECT DATA			S	SITE DATA				
Centerline Dist to Barrie	er: 0		Road Grade:		0				
Barrier (0=wall, 1= berr	m): <b>0</b>		Average Dail	y Traffic:	28890				
Receiver Barrier Dist:	0		Peak Hour T	raffic:	2889				
Centerline Dist. To Obs	server: <b>100</b>		Vehicle Speed:		40				
Barrier Near Lane CL E	Dist: 0		Centerline Se	eparation:	20				
Barrier Far lane CL Dis	st: 0		NOISE INPUTS						
Pad Elevation:	0.5		Site conditions: SOFT SITE						
Road Elevation:	0			F	LEET MIX				
Observer Height (abov	e grade): 5.5		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOUR	RCE ELEVATIONS (Fe	eet)	Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	53.5	62.2	60.5	54.4	63.0	63.6		
Medium Trucks:	62.4	54.4	48.0	46.4	54.9	55.1		
Heavy Trucks:	67.3	55.3	46.3	47.5	57.2	57.3		
Vehicle Noise:	69.6	63.8	60.9	56.0	64.5	65.0		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	236						
65 dBA	110						
70 dBA	51						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

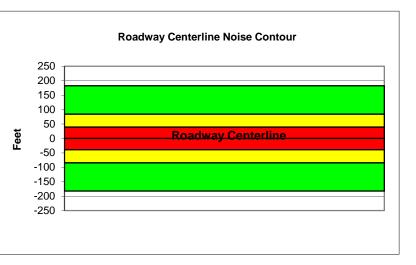


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR				Future				
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	Linne Road								
Road Segment:	Tracy Boulevard to Ma	acArthur Drive	e						
PR	OJECT DATA			S	SITE DATA				
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0				
Barrier (0=wall, 1= berm	n): <b>0</b>		Average Dail		14730				
Receiver Barrier Dist:	0		Peak Hour Traffic:		1473				
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Speed:		45				
Barrier Near Lane CL D	ist: 0		Centerline Separation:		24				
Barrier Far lane CL Dist	: 0			NC	ISE INPUT	S			
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	TE				
Road Elevation:	0			F	LEET MIX				
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily		
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SOUR	CE ELEVATIONS (Fe	eet)	Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:	0								
Medium Trucks:	2.3								
Heavy Trucks:	8								

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	51.9	60.7	58.9	52.8	61.5	62.1		
Medium Trucks:	60.2	52.1	45.7	44.2	52.7	52.9		
Heavy Trucks:	64.7	52.8	43.7	44.9	54.5	54.6		
Vehicle Noise:	67.0	62.0	59.3	54.1	62.7	63.2		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	182						
65 dBA	85						
70 dBA	39						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

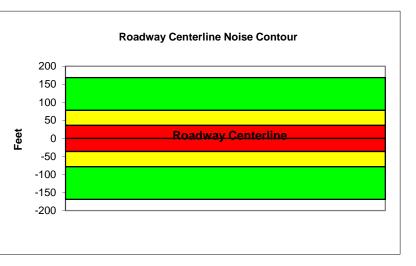


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)							
Project Name: 1	racy Hills EIR		· ·		Future		
Analyst: F	Ryan Chiene			Job #:	135721		
Roadway: L	inne Road						
Road Segment:	lacArthur Drive to Cl	hrisman Road	I				
PRC	DJECT DATA			ç	SITE DATA		
Centerline Dist to Barrier	:: <b>0</b>		Road Grade:		0		
Barrier (0=wall, 1= berm	): 0		Average Dail	y Traffic:	13110		
Receiver Barrier Dist:	0		Peak Hour Traffic:		1311		
Centerline Dist. To Obse	erver: 100		Vehicle Speed:		45		
Barrier Near Lane CL Di	st: 0		Centerline Se	eparation:	24		
Barrier Far lane CL Dist:	0			NC	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:	0			F	LEET MIX		
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	CE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	51.4	60.2	58.4	52.3	61.0	61.6	
Medium Trucks:	59.7	51.6	45.2	43.7	52.1	52.4	
Heavy Trucks:	64.2	52.3	43.2	44.4	54.0	54.1	
Vehicle Noise:	66.5	61.5	58.8	53.6	62.2	62.7	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	169					
65 dBA	78					
70 dBA	36					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

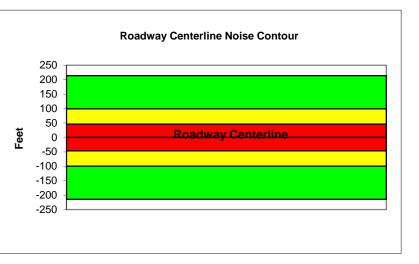


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR		· ·	Scenario:	Future			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Linne Road							
Road Segment:	East of Chrisman R	oad						
PI	ROJECT DATA			S	SITE DATA			
Centerline Dist to Barr	ier:	0	Road Grade:		0			
Barrier (0=wall, 1= ber	m):	0	Average Dail	y Traffic:	11340			
Receiver Barrier Dist:		0	Peak Hour T	raffic:	1134			
Centerline Dist. To Ob	server: 10	0	Vehicle Speed:		55			
Barrier Near Lane CL	Dist:	0	Centerline Separation:		24			
Barrier Far lane CL Dis	st:	0	NOISE INPUTS					
Pad Elevation:	0.	.5	Site conditions: SOFT SITE					
Road Elevation:		0		F	LEET MIX			
Observer Height (abov	ve grade): 5	.5	Туре	Day	Evening	Night	Daily	
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View	: <b>-90</b>	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	RCE ELEVATIONS (	Feet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0						
Medium Trucks:	2.	.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	53.3	62.1	60.3	54.2	62.8	63.4	
Medium Trucks:	60.4	52.3	46.0	44.4	52.9	53.1	
Heavy Trucks:	64.4	52.4	43.4	44.6	53.9	54.0	
Vehicle Noise:	66.7	63.0	60.5	55.1	63.7	64.3	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	214					
65 dBA	99					
70 dBA	46					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

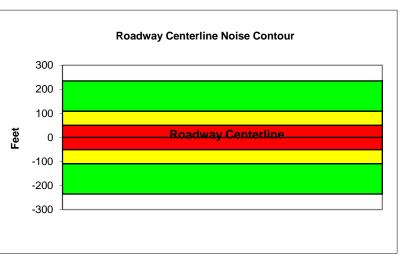


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR		-	Scenario:	Future			
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Altamont Pass Road							
Road Segment:	Nest of Greenville Road							
PR	OJECT DATA			5	SITE DATA			
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0			
Barrier (0=wall, 1= berm	): <b>0</b>		Average Dail	y Traffic:	21620			
Receiver Barrier Dist:	0		Peak Hour Traffic:		2162			
Centerline Dist. To Obse	erver: <b>100</b>		Vehicle Spee	ed:	45			
Barrier Near Lane CL Di	ist: 0		Centerline Se	eparation:	26			
Barrier Far lane CL Dist	. 0		NOISE INPUTS					
Pad Elevation:	0.5		Site conditions: SOFT SITE					
Road Elevation:	0			F	LEET MIX			
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOUR	NOISE SOURCE ELEVATIONS (Feet)			0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	53.5	62.3	60.5	54.4	63.1	63.7	
Medium Trucks:	61.8	53.7	47.4	45.8	54.3	54.5	
Heavy Trucks:	66.3	54.4	45.3	46.5	56.1	56.2	
Vehicle Noise:	68.7	63.6	60.9	55.7	64.3	64.8	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	235					
65 dBA	109					
70 dBA	51					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

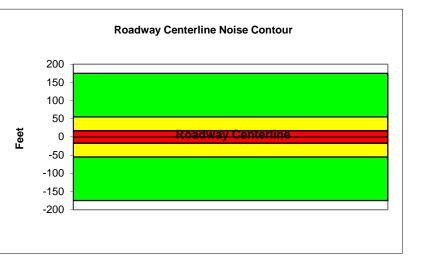


				ninistration R ion Model (C				
Project Name:	Tracy Hills EIR			-	Scenario:	Future		
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Patterson Pass Ro	ad						
Road Segment:	West of Greenville	Road						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	5630		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	563		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	45		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	42		
Barrier Far lane CL	. Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	w:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.4	59.2	57.4	51.3	59.9	60.5
Medium Trucks:	58.6	50.6	44.2	42.6	51.1	51.3
Heavy Trucks:	63.2	51.2	42.2	43.4	52.9	53.1
Vehicle Noise:	65.5	60.5	57.7	52.6	61.2	61.7

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	175					
65 dBA	55					
70 dBA	18					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

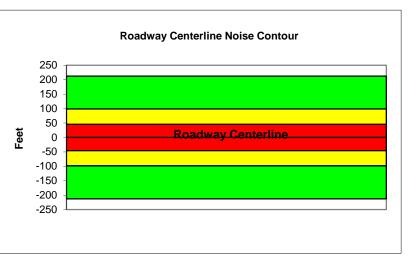


			ninistration R on Model (C				
Project Name:	Tracy Hills EIR		-	Scenario:	Future		
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Tesla Road						
Road Segment:	West of Greenville Ro	ad					
PR	ROJECT DATA			5	SITE DATA		
Centerline Dist to Barrie	er: 0		Road Grade:		0		
Barrier (0=wall, 1= berr	m): <b>0</b>		Average Dail	y Traffic:	14300		
Receiver Barrier Dist:	0		Peak Hour T	raffic:	1430		
Centerline Dist. To Obs	server: <b>100</b>		Vehicle Spee	ed:	50		
Barrier Near Lane CL D	Dist: 0		Centerline Se	eparation:	24		
Barrier Far lane CL Dis	.t: <b>0</b>			NC	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:	0			F	LEET MIX		
Observer Height (abov	e grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	RCE ELEVATIONS (Fe	eet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATE	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	53.1	61.9	60.1	54.0	62.7	63.3	
Medium Trucks:	60.8	52.7	46.3	44.7	53.2	53.5	
Heavy Trucks:	65.0	53.1	44.0	45.2	54.6	54.7	
Vehicle Noise:	67.3	63.0	60.4	55.1	63.7	64.2	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	213					
65 dBA	99					
70 dBA	46					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

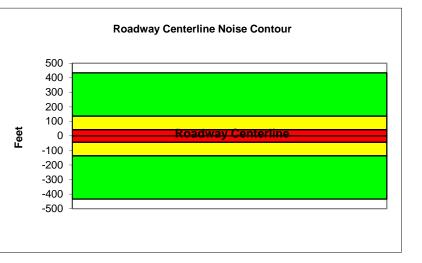


				ninistration R ion Model (C				
Project Name:	Tracy Hills EIR				-	Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721	-	
Roadway:	Lammers Road							
Road Segment:	North of Eleventh S	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	18540		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	1854		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View	V:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.4	63.1	61.4	55.3	63.9	64.5
Medium Trucks:	63.3	55.3	48.9	47.3	55.8	56.0
Heavy Trucks:	68.2	56.2	47.2	48.4	58.1	58.2
Vehicle Noise:	70.5	64.7	61.8	56.9	65.4	65.9

MITIGAT	MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOIS	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	434						
65 dBA	137						
70 dBA	43						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

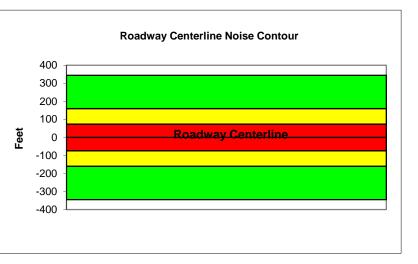


			ninistration F on Model (C					
Project Name:	Tracy Hills EIR			Scenario:	Future Plus	s Project		
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Lammers Road							
Road Segment:	Eleventh Street to Old Se	chulte Roa	d					
PR	OJECT DATA			S	SITE DATA			
Centerline Dist to Barrie	er: <b>O</b>		Road Grade:		0			
Barrier (0=wall, 1= berm	n): <b>O</b>		Average Dail	y Traffic:	50780			
Receiver Barrier Dist:	0		Peak Hour Traffic:		5078			
Centerline Dist. To Obs	erver: <b>100</b>		Vehicle Speed:		40			
Barrier Near Lane CL D	ist: 0		Centerline Separation:		64			
Barrier Far lane CL Dist	: 0			NC	ISE INPUT	S		
Pad Elevation:	0.5		Site conditions: SOFT SITE					
Road Elevation:	0			F	LEET MIX			
Observer Height (above	e grade): 5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:	0							
Medium Trucks:	2.3							
Heavy Trucks:	8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	54.9	63.7	61.9	55.8	64.5	65.1		
Medium Trucks:	63.9	55.8	49.4	47.8	56.3	56.6		
Heavy Trucks:	68.7	56.8	47.7	48.9	58.6	58.8		
Vehicle Noise:	71.1	65.3	62.3	57.4	66.0	66.4		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	344					
65 dBA	160					
70 dBA	74					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

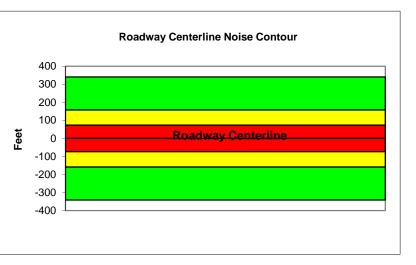


		Federal High							
Project Name:	Tracy Hills	EIR			Scenario: Future Plus Project				
Analyst:	Ryan Chie	ne			Job #:	135721			
Roadway:	Lammers	Road							
Road Segment:	Valpico Ro	bad to Linne Roa	ad						
F	PROJECT D	ΑΤΑ			5	SITE DATA			
Centerline Dist to Bar	rrier:	0		Road Grade:		0			
Barrier (0=wall, 1= be	erm):	0		Average Dail	y Traffic:	37695			
Receiver Barrier Dist	:	0		Peak Hour T	raffic:	3769.5			
Centerline Dist. To O	bserver:	100		Vehicle Speed:		45			
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	24			
Barrier Far lane CL D	Dist:	0			NC	ISE INPUT	S		
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΓE			
Road Elevation:		0		FLEET MIX					
Observer Height (abo	ove grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 9	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	JRCE ELEV	ATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	56.0	64.8	63.0	56.9	65.5	66.2		
Medium Trucks:	64.3	56.2	49.8	48.2	56.7	57.0		
Heavy Trucks:	68.8	56.8	47.8	49.0	58.6	58.7		
Vehicle Noise:	71.1	66.1	63.3	58.2	66.8	67.3		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	341					
65 dBA	158					
70 dBA	73					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

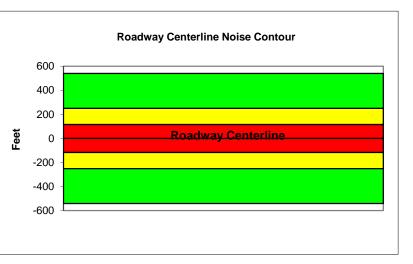


		Federal Highw Traffic Noise F						
Project Name:	Tracy Hills				Scenario:	Future Plus	s Project	
Analyst:	Ryan Chie	ne			Job #:	135721		
Roadway:	Lammers	Road						
Road Segment:	Linne Roa	d to Spine Road						
F	PROJECT D/	ATA			5	SITE DATA		
Centerline Dist to Bar	rrier:	0		Road Grade:		0		
Barrier (0=wall, 1= be	erm):	0		Average Dail	y Traffic:	57900		
Receiver Barrier Dist	:	0		Peak Hour T	raffic:	5790		
Centerline Dist. To O	bserver:	100		Vehicle Speed:		50		
Barrier Near Lane CL	_ Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL D	Dist:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		FLEET MIX				
Observer Height (abo	ove grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 9	90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	URCE ELEV	ATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	59.2	68.0	66.2	60.1	68.7	69.3	
Medium Trucks:	66.8	58.8	52.4	50.8	59.3	59.5	
Heavy Trucks:	71.1	59.1	50.1	51.3	60.7	60.8	
Vehicle Noise:	73.4	69.0	66.5	61.2	69.8	70.3	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CONTOUR
Unmitigated	
60 dBA	540
65 dBA	251
70 dBA	116
Mitigated	
60 dBA	
65 dBA	
70 dBA	

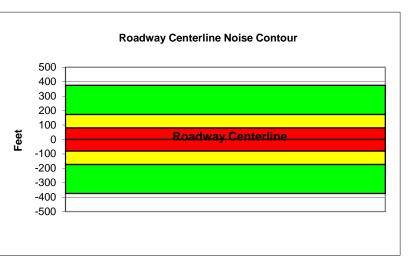


		Federal Highwa Traffic Noise P							
Project Name:	Tracy Hills E	IR		-	Scenario:	Future Plus	s Project		
Analyst:	Ryan Chiene	9			Job #:	135721			
Roadway:	Lammers Ro	bad							
Road Segment:	South of Spir	ne Road							
Р	ROJECT DAT	A			S	SITE DATA			
Centerline Dist to Bar	rier:	0		Road Grade:		0			
Barrier (0=wall, 1= be	rm):	0		Average Dail	y Traffic:	33400			
<b>Receiver Barrier Dist:</b>		0		Peak Hour T	raffic:	3340			
Centerline Dist. To Ob	oserver:	100		Vehicle Speed:		50			
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	24			
Barrier Far lane CL Di	ist:	0			NO	ISE INPUT	S		
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΓE			
Road Elevation:		0		FLEET MIX					
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 9	<b>0</b> L	.ft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	IRCE ELEVAT	IONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	56.8	65.6	63.8	57.7	66.3	66.9	
Medium Trucks:	64.5	56.4	50.0	48.4	56.9	57.2	
Heavy Trucks:	68.7	56.7	47.7	48.9	58.3	58.4	
Vehicle Noise:	71.0	66.7	64.1	58.8	67.4	67.9	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	374					
65 dBA	174					
70 dBA	81					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

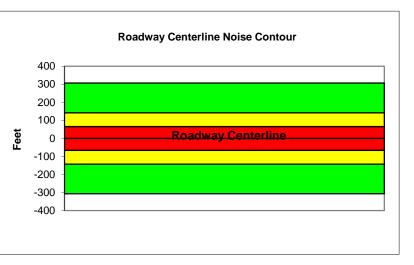


		Federal High Traffic Noise							
Project Name:	Tracy Hills			Scenario: Future Plus Project					
Analyst:	Ryan Chien	е			Job #:	135721	-		
Roadway:	Lammers R	oad Extension	/Eleventł	n Street					
Road Segment:	North of I-20	05							
PI	ROJECT DA	ТА			S	SITE DATA			
Centerline Dist to Barr	ier:	0		Road Grade:		0			
Barrier (0=wall, 1= ber	m):	0		Average Dail	y Traffic:	42700			
Receiver Barrier Dist:		0		Peak Hour T	raffic:	4270			
Centerline Dist. To Ob	server:	100		Vehicle Speed:		40			
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	64			
Barrier Far lane CL Dis	st:	0			NC	ISE INPUT	S		
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE			
Road Elevation:		0		FLEET MIX					
Observer Height (abov	/e grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	)	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	RCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.1	62.9	61.1	55.1	63.7	64.3
Medium Trucks:	63.1	55.0	48.7	47.1	55.6	55.8
Heavy Trucks:	67.9	56.0	47.0	48.2	57.9	58.0
Vehicle Noise:	70.3	64.5	61.6	56.6	65.2	65.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	307					
65 dBA	142					
70 dBA	66					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

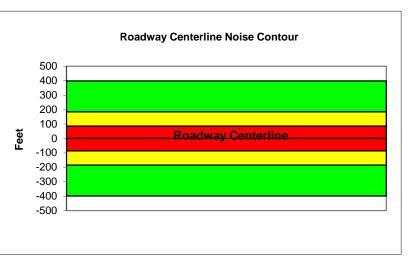


				ninistration R on Model (C				
Project Name:	Tracy Hills			Scenario: Future Plus Project				
Analyst:	Ryan Chie	ne			Job #:	135721		
Roadway:	Lammers	Road Extensio	n/Eleventh	n Street				
Road Segment:	I-205 to La	mmers Road						
PF	ROJECT DA	АТА			S	SITE DATA		
Centerline Dist to Barri	ier:	0		Road Grade:		0		
Barrier (0=wall, 1= ber	m):	0		Average Dail	y Traffic:	63200		
Receiver Barrier Dist:		0		Peak Hour T	raffic:	6320		
Centerline Dist. To Ob	server:	100		Vehicle Speed:		40		
Barrier Near Lane CL I	Dist:	0		Centerline Se	eparation:	64		
Barrier Far lane CL Dis	st:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (abov	ve grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90		Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	RCE ELEV/	ATIONS (Feet	)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	55.9	64.6	62.8	56.8	65.4	66.0	
Medium Trucks:	64.8	56.7	50.4	48.8	57.3	57.5	
Heavy Trucks:	69.7	57.7	48.7	49.9	59.6	59.7	
Vehicle Noise:	72.0	66.2	63.3	58.3	66.9	67.4	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	398					
65 dBA	185					
70 dBA	86					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

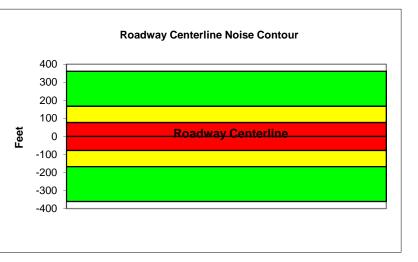


		Federal High Traffic Noise							
Project Name:	Tracy Hills I	EIR			Scenario:	Future Plus	s Project		
Analyst:	Ryan Chien	е			Job #:	135721			
Roadway:	Lammers R	oad Extension	/Eleventł	n Street					
Road Segment:	Lammers R	oad to Corral I	Hollow R	oad					
PF	ROJECT DA	ТА			S	SITE DATA			
Centerline Dist to Barri	er:	0		Road Grade:		0			
Barrier (0=wall, 1= berr	m):	0		Average Dail	y Traffic:	54530			
Receiver Barrier Dist:		0		Peak Hour Traffic:		5453			
Centerline Dist. To Ob	server:	100		Vehicle Speed:		40			
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	64			
Barrier Far lane CL Dis	st:	0		NOISE INPUTS					
Pad Elevation:		0.5		Site conditions: SOFT SITE					
Road Elevation:		0		FLEET MIX					
Observer Height (abov	e grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90		Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	RCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.2	64.0	62.2	56.1	64.8	65.4
Medium Trucks:	64.2	56.1	49.7	48.1	56.6	56.9
Heavy Trucks:	69.0	57.1	48.0	49.2	58.9	59.1
Vehicle Noise:	71.4	65.6	62.6	57.7	66.3	66.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	361					
65 dBA	168					
70 dBA	78					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

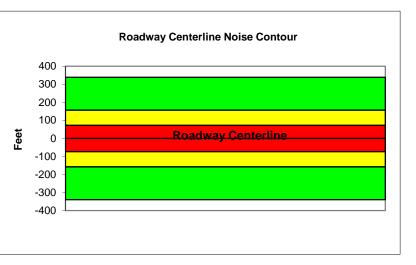


				ninistration R ion Model (C				
Project Name:	Tracy Hills E			Scenario: Future Plus Project				
Analyst:	Ryan Chien	е			Job #:	135721		
Roadway:	Lammers R	oad Extensio	n/Eleventh	n Street				
Road Segment:	East of Corr	ral Hollow Ro	ad					
PF	ROJECT DA	ТА			S	SITE DATA		
Centerline Dist to Barri	er:	0		Road Grade:		0		
Barrier (0=wall, 1= berr	m):	0		Average Dail	y Traffic:	49610		
Receiver Barrier Dist:		0		Peak Hour T	raffic:	4961		
Centerline Dist. To Ob	server:	100		Vehicle Speed:		40		
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	64		
Barrier Far lane CL Dis	st:	0			NC	<b>ISE INPUT</b>	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (abov	e grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90		Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	RCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.8	63.6	61.8	55.7	64.4	65.0
Medium Trucks:	63.8	55.7	49.3	47.7	56.2	56.4
Heavy Trucks:	68.6	56.7	47.6	48.8	58.5	58.7
Vehicle Noise:	71.0	65.2	62.2	57.3	65.9	66.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	339					
65 dBA	157					
70 dBA	73					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

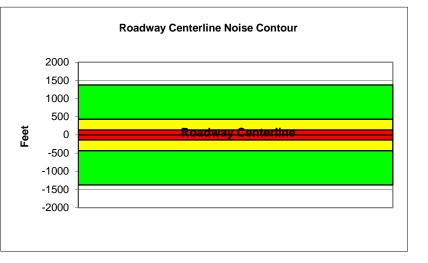


				ninistration R on Model (C				
Project Name:	Tracy Hills E	IR		-	Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Corral Hollov	v Road						
Road Segment:	North of Elev	enth Street						
	PROJECT D	ATA			S	SITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	58730		
Receiver Barrier D	ist:	0		Peak Hour Tr	affic:	5873		
Centerline Dist. To	Observer:	100		Vehicle Speed:		40		
Barrier Near Lane	CL Dist:	0		Centerline Se	paration:	64		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	) L	ft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEV	ATIONS (Feet	)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.8	67.5	65.8	59.7	68.3	68.9
Medium Trucks:	67.7	59.7	53.3	51.7	60.2	60.4
Heavy Trucks:	72.6	60.6	51.6	52.8	62.5	62.6
Vehicle Noise:	74.9	69.1	66.2	61.3	69.8	70.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	1375					
65 dBA	435					
70 dBA	138					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

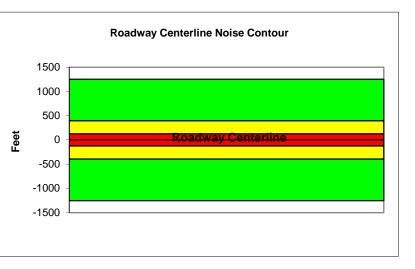


				ninistration F ion Model (C					
Project Name:	Tracy Hills EIR				Scenario:	Future Plus	s Project		
Analyst:	Ryan Chiene				Job #:	135721	-		
Roadway:	Corral Hollow Roa	ld							
Road Segment:	Eleventh Street to	New Schul	te Road						
	PROJECT DATA				S	SITE DATA			
Centerline Dist to Ba	arrier	0		Road Grade:		0			
Barrier (0=wall, 1= b	perm):	0		Average Dail	y Traffic:	53440			
Receiver Barrier Dis	st:	0		Peak Hour T	raffic:	5344			
Centerline Dist. To	Observer:	100		Vehicle Speed:		40			
Barrier Near Lane C	CL Dist:	0		Centerline Separation:		60			
Barrier Far lane CL	Dist:	0		NOISE INPUTS					
Pad Elevation:		0.5		Site conditior	is HARD SI	TE			
Road Elevation:		0		FLEET MIX					
Observer Height (at	pove grade):	0		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft Vie	W:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SC	OURCE ELEVATIO	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	58.4	67.2	65.4	59.3	68.0	68.6	
Medium Trucks:	67.4	59.3	52.9	51.3	59.8	60.1	
Heavy Trucks:	72.2	60.3	51.2	52.4	62.2	62.3	
Vehicle Noise:	74.6	68.8	65.9	60.9	69.5	70.0	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	1253					
65 dBA	396					
70 dBA	125					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

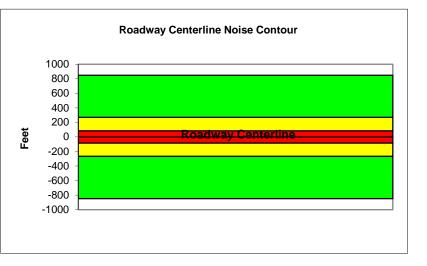


			Administration						
Project Name:	Tracy Hills EIR			Scenario: Future Plus Project					
Analyst:	Ryan Chiene			Job #:	135721				
Roadway:	Corral Hollow Road								
Road Segment:	New Schulte Road t	to Linne Road							
	PROJECT DATA			S	SITE DATA				
Centerline Dist to Ba	arrier	0	Road Grade	:	0				
Barrier (0=wall, 1= b	perm):	0	Average Dai	ly Traffic:	36250				
Receiver Barrier Dis	st:	0	Peak Hour T	raffic:	3625				
Centerline Dist. To	Observer:	100	Vehicle Spe	Vehicle Speed:					
Barrier Near Lane C	L Dist:	0	Centerline S	Centerline Separation:					
Barrier Far lane CL	Dist:	0		NOISE INPUTS					
Pad Elevation:		0.5	Site conditio	ns <b>HARD S</b> I	TE				
Road Elevation:		0		FLEET MIX					
Observer Height (at	oove grade):	0	Туре	Day	Evening	Night	Daily		
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742		
Rt View: 90	Lft View	-	90 Med. Truck	0.848	0.049	0.103	0.0184		
NOISE SC	URCE ELEVATION	IS (Feet)	Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	56.7	65.5	63.7	57.6	66.3	66.9	
Medium Trucks:	65.7	57.6	51.2	49.7	58.1	58.4	
Heavy Trucks:	70.5	58.6	49.5	50.8	60.5	60.6	
Vehicle Noise:	72.9	67.1	64.2	59.2	67.8	68.3	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:								
Medium Trucks:								
Heavy Trucks:								
Vehicle Noise:								

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	849					
65 dBA	269					
70 dBA	85					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

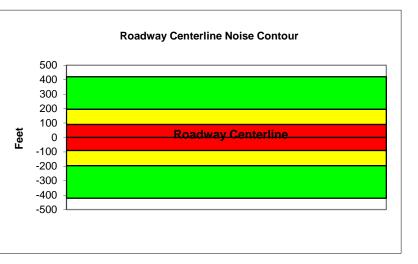


		Federal Highw Traffic Noise P						
Project Name:	Tracy Hills I				Scenario:	Future Plus	s Project	
Analyst:	Ryan Chien	e			Job #:	135721		
Roadway:	Corral Hollo	w Road						
Road Segment:	Linne Road	to Spine Road						
Р	ROJECT DA	ТА			S	SITE DATA		
Centerline Dist to Bar	rier:	0		Road Grade:		0		
Barrier (0=wall, 1= be	rm):	0		Average Dail	y Traffic:	39805		
Receiver Barrier Dist:		0		Peak Hour Traffic:		3980.5		
Centerline Dist. To Ob	bserver:	100		Vehicle Speed:		50		
Barrier Near Lane CL	Dist:	0		Centerline Separation:		24		
Barrier Far lane CL Di	ist:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		FLEET MIX				
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 9	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	JRCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	57.5	66.3	64.5	58.5	67.1	67.7	
Medium Trucks:	65.2	57.2	50.8	49.2	57.7	57.9	
Heavy Trucks:	69.4	57.5	48.5	49.7	59.1	59.2	
Vehicle Noise:	71.8	67.4	64.8	59.5	68.1	68.7	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	421					
65 dBA	195					
70 dBA	91					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

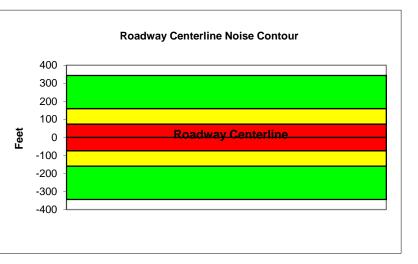


		Highway Adn Ioise Predicti					
Project Name:	Tracy Hills EIR			Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Corral Hollow Road						
Road Segment:	South of Spine Road						
	ROJECT DATA				SITE DATA		
Centerline Dist to Barri	er: 0		Road Grade:		0		
Barrier (0=wall, 1= berr	m): <b>0</b>		Average Dail		29360		
Receiver Barrier Dist:	0		Peak Hour T	raffic:	2936		
Centerline Dist. To Obs	server: 100	)	Vehicle Speed:		50		
Barrier Near Lane CL	Dist: 0	)	Centerline Separation: 24				
Barrier Far lane CL Dis	st: <b>0</b>	1		NOISE INPUTS			
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:	0	1	FLEET MIX				
Observer Height (abov	e grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0	)	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	RCE ELEVATIONS (F	eet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	56.2	65.0	63.2	57.1	65.8	66.4	
Medium Trucks:	63.9	55.8	49.4	47.9	56.4	56.6	
Heavy Trucks:	68.1	56.2	47.1	48.3	57.7	57.9	
Vehicle Noise:	70.4	66.1	63.5	58.2	66.8	67.3	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	344					
65 dBA	159					
70 dBA	74					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

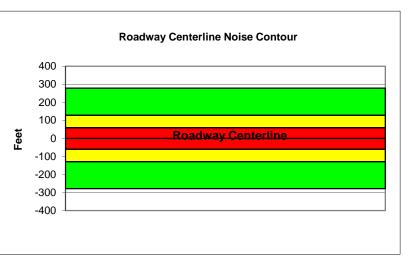


		ederal Highw Traffic Noise F							
Project Name:	Tracy Hills El	R		-	Scenario:	Future Plus	s Project		
Analyst:	Ryan Chiene				Job #:	135721			
Roadway:	Chrisman Ro	ad							
Road Segment:	North of I-205	5							
Р	ROJECT DAT	4			5	SITE DATA			
Centerline Dist to Bar	rier:	0		Road Grade:		0			
Barrier (0=wall, 1= be	,	0		Average Dail	y Traffic:	27800			
Receiver Barrier Dist:		0		Peak Hour T	raffic:	2780			
Centerline Dist. To Ob	bserver:	100		Vehicle Speed:		45			
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	24			
Barrier Far lane CL Di	ist:	0			-	ISE INPUT	S		
Pad Elevation:		0.5		Site conditior	Site conditions: SOFT SITE				
Road Elevation:		0		FLEET MIX					
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 9	<b>0</b> Lf	t View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074		
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	54.7	63.4	61.7	55.6	64.2	64.8	
Medium Trucks:	62.9	54.9	48.5	46.9	55.4	55.6	
Heavy Trucks:	67.5	55.5	46.5	47.7	57.2	57.4	
Vehicle Noise:	69.8	64.8	62.0	56.9	65.5	66.0	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	278					
65 dBA	129					
70 dBA	60					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

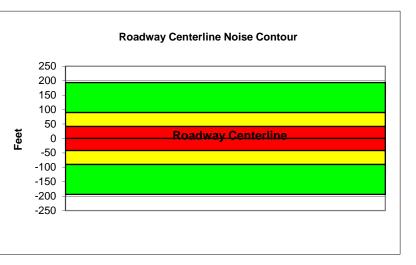


		Federal High Traffic Noise						
Project Name:	Tracy Hills	s EIR			Scenario:	Future Plus	s Project	
Analyst:	Ryan Chie	ene			Job #:	135721		
Roadway:	Chrisman	Road						
Road Segment:	I-205 Free	way to Eleventh	Street					
	PROJECT D	ΑΤΑ			5	SITE DATA		
Centerline Dist to Ba	arrier:	0		Road Grade:		0		
Barrier (0=wall, 1= b	erm):	0		Average Dail	y Traffic:	29145		
Receiver Barrier Dis	st:	0		Peak Hour T	raffic:	2914.5		
Centerline Dist. To C	Observer:	100		Vehicle Speed:		35		
Barrier Near Lane C	L Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		FLEET MIX				
Observer Height (ab	ove grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View:	90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)			Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	51.7	60.5	58.7	52.6	61.3	61.9		
Medium Trucks:	61.4	53.4	47.0	45.4	53.9	54.1		
Heavy Trucks:	66.7	54.7	45.7	46.9	56.8	56.9		
Vehicle Noise:	69.1	62.5	59.3	54.6	63.2	63.6		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	194					
65 dBA	90					
70 dBA	42					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

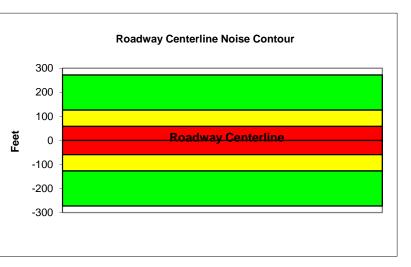


		Federal High						
Project Name:	Tracy Hills	EIR			Scenario:	Future Plus	s Project	
Analyst:	Ryan Chier	ne			Job #:	135721		
Roadway:	Chrisman F	Road						
Road Segment:	Eleventh St	treet to Valpico	Road					
Р	ROJECT DA	TA			S	SITE DATA		
Centerline Dist to Bar	rier:	0		Road Grade:		0		
Barrier (0=wall, 1= ber	rm):	0		Average Dail	y Traffic:	26940		
Receiver Barrier Dist:		0		Peak Hour T	raffic:	2694		
Centerline Dist. To Ob	oserver:	100		Vehicle Speed:		45		
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL Di	ist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		FLEET MIX				
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	IRCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.5	63.3	61.5	55.4	64.1	64.7
Medium Trucks:	62.8	54.7	48.4	46.8	55.3	55.5
Heavy Trucks:	67.3	55.4	46.3	47.6	57.1	57.2
Vehicle Noise:	69.7	64.6	61.9	56.7	65.3	65.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	273					
65 dBA	126					
70 dBA	59					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

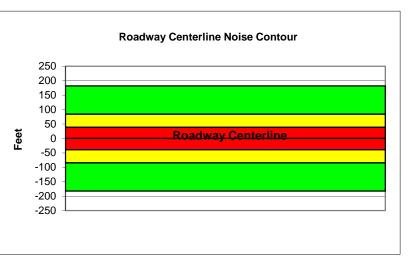


		Federal Highwa Traffic Noise P						
Project Name:	Tracy Hills	EIR			Scenario:	Future Plus	s Project	
Analyst:	Ryan Chien	e			Job #:	135721		
Roadway:	Chrisman R	oad						
Road Segment:	South of Va	lpico Road						
P	PROJECT DA	ТА			S	SITE DATA		
Centerline Dist to Bar	rier:	0		Road Grade:		0		
Barrier (0=wall, 1= be	erm):	0		Average Dail	y Traffic:	14710		
Receiver Barrier Dist:		0		Peak Hour T	raffic:	1471		
Centerline Dist. To O	bserver:	100		Vehicle Spee	d:	45		
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL D	ist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 9	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOL	JRCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.9	60.7	58.9	52.8	61.5	62.1
Medium Trucks:	60.2	52.1	45.7	44.2	52.6	52.9
Heavy Trucks:	64.7	52.8	43.7	44.9	54.5	54.6
Vehicle Noise:	67.0	62.0	59.3	54.1	62.7	63.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						)
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	182					
65 dBA	84					
70 dBA	39					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

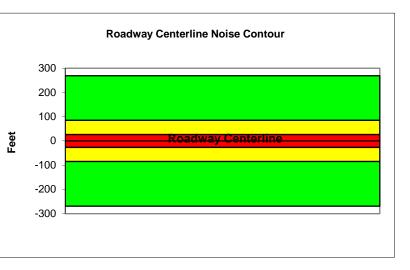


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	Linne Road to Va	lpico Road						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1= I	berm):	0		Average Dail	y Traffic:	11485		
<b>Receiver Barrier Dis</b>	st:	0		Peak Hour Ti	raffic:	1148.5		
Centerline Dist. To	Observer:	100		Vehicle Speed:		40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	18		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is <b>HARD SI</b>	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vi	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SC	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.4	61.2	59.4	53.3	62.0	62.6
Medium Trucks:	61.3	53.3	46.9	45.3	53.8	54.0
Heavy Trucks:	66.2	54.3	45.2	46.4	56.1	56.3
Vehicle Noise:	68.6	62.8	59.8	54.9	63.5	63.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR						
Unmitigated						
60 dBA	269					
65 dBA	85					
70 dBA	27					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

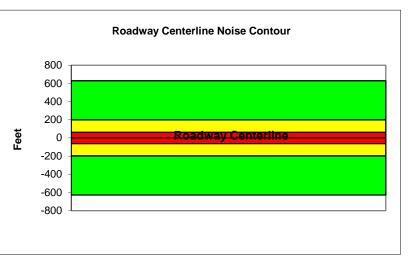


				ninistration <b>F</b> ion Model (C				
Project Name:	Tracy Hills EIR				-	Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	Valpico Road to W	est Schulte	e Road					
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1= b	perm):	0		Average Dail	y Traffic:	20205		
<b>Receiver Barrier Dis</b>	st:	0		Peak Hour Ti	raffic:	2020.5		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	45		
Barrier Near Lane C	CL Dist:	0		Centerline Se	eparation:	34		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (at	pove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SC	OURCE ELEVATIO	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.0	64.8	63.0	57.0	65.6	66.2
Medium Trucks:	64.3	56.3	49.9	48.3	56.8	57.0
Heavy Trucks:	68.8	56.9	47.8	49.1	58.6	58.7
Vehicle Noise:	71.2	66.1	63.4	58.3	66.8	67.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOI	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	629					
65 dBA	199					
70 dBA	63					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

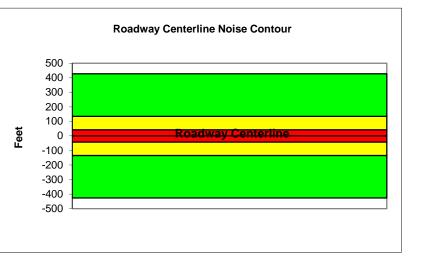


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	West Schulte Road	to Eleventh	Street					
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	arrier	0		Road Grade:		0		
Barrier (0=wall, 1= I	berm):	0		Average Dail	y Traffic:	18220		
Receiver Barrier Dis	st:	0		Peak Hour Ti	raffic:	1822		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Viev	N:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.3	63.1	61.3	55.2	63.9	64.5
Medium Trucks:	63.2	55.2	48.8	47.2	55.7	55.9
Heavy Trucks:	68.1	56.2	47.1	48.3	58.0	58.2
Vehicle Noise:	70.5	64.7	61.7	56.8	65.4	65.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOIS	SE CONTOUR
Unmitigated	
60 dBA	427
65 dBA	135
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	

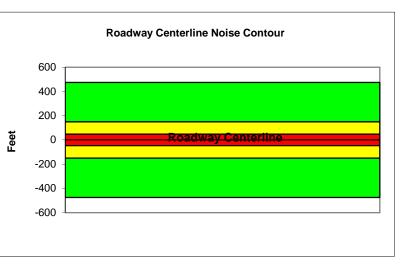


				ninistration F ion Model (C				
Project Name:	Tracy Hills EIR				Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	MacArthur Drive							
Road Segment:	North of Eleventh S	Street						
	PROJECT DATA				S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	20250		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	2025		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Viev	N:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVATIO	NS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)					
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.8	63.5	61.7	55.7	64.3	64.9
Medium Trucks:	63.7	55.6	49.3	47.7	56.2	56.4
Heavy Trucks:	68.6	56.6	47.6	48.8	58.5	58.6
Vehicle Noise:	70.9	65.1	62.2	57.2	65.8	66.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOIS	SE CONTOUR
Unmitigated	
60 dBA	475
65 dBA	150
70 dBA	48
Mitigated	
60 dBA	
65 dBA	
70 dBA	

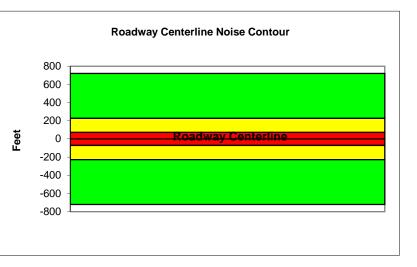


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)									
Project Name:	Tracy Hills EIR			-	Scenario:	Future Plus	s Project		
Analyst:	Ryan Chiene				Job #:	135721			
Roadway:	Tracy Boulevard								
Road Segment:	North of Eleventh	Street							
	PROJECT DATA	L .			S	SITE DATA			
Centerline Dist to B	arrier	0		Road Grade:		0			
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	41860			
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	4186			
Centerline Dist. To	Observer:	100		Vehicle Speed:		35			
Barrier Near Lane (	CL Dist:	0		Centerline Se	eparation:	32			
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S		
Pad Elevation:		0.5		Site condition	is HARD SI	TE			
Road Elevation:		0			F	LEET MIX			
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft Vie	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SO	OURCE ELEVATION	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	56.1	64.9	63.1	57.0	65.7	66.3		
Medium Trucks:	65.8	57.7	51.4	49.8	58.3	58.5		
Heavy Trucks:	71.0	59.1	50.0	51.3	61.2	61.3		
Vehicle Noise:	73.5	66.8	63.7	59.0	67.5	68.0		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

CENTERLINE NOIS	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	722						
65 dBA	228						
70 dBA	72						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

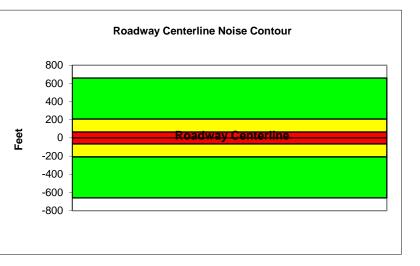


		eral Highway Ad fic Noise Predic						
Project Name:	Tracy Hills EIR			Scenario:	Future Plus	s Project		
Analyst:	Ryan Chiene			Job #:	135721			
Roadway:	Tracy Boulevard							
Road Segment:	Eleventh Street to Va	alpico Road						
	PROJECT DATA			S	SITE DATA			
Centerline Dist to Ba	nrier	0	Road Grade:		0			
Barrier (0=wall, 1= b	erm):	0	Average Dail	y Traffic:	38250			
Receiver Barrier Dis	t:	0	Peak Hour T	raffic:	3825			
Centerline Dist. To C	Observer: 1	00	Vehicle Speed:		35			
Barrier Near Lane C	L Dist:	0	Centerline Separation:		38			
Barrier Far lane CL	Dist:	0	NOISE INPUTS					
Pad Elevation:		0.5	Site condition	ns <b>HARD SI</b>	TE			
Road Elevation:		0	FLEET MIX					
Observer Height (ab	ove grade):	0	Туре	Day	Evening	Night	Daily	
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	Lft View	: <b>-9</b> 0	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SO	URCE ELEVATION	S (Feet)	Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0						
Medium Trucks:	:	2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	55.6	64.4	62.6	56.5	65.2	65.8		
Medium Trucks:	65.3	57.3	50.9	49.3	57.8	58.0		
Heavy Trucks:	70.5	58.6	49.6	50.8	60.7	60.8		
Vehicle Noise:	73.0	66.3	63.2	58.5	67.0	67.5		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)									
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:									
Medium Trucks:									
Heavy Trucks:									
Vehicle Noise:									

CENTERLINE NOIS	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	659						
65 dBA	208						
70 dBA	66						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

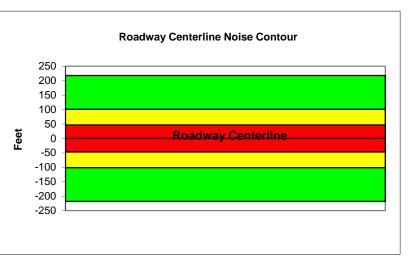


	Federal High Traffic Noise		ninistration F on Model (C				
Project Name:	Tracy Hills EIR			Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene			Job #:	135721	-	
Roadway:	_inne Road						
Road Segment:	Nest of Corral Hollow Ro	bad					
PRO	OJECT DATA			5	SITE DATA		
Centerline Dist to Barrie	r: <b>0</b>		Road Grade:		0		
Barrier (0=wall, 1= berm	): 0		Average Dail	y Traffic:	19280		
Receiver Barrier Dist:	0		Peak Hour T	raffic:	1928		
Centerline Dist. To Obse	erver: 100		Vehicle Spee	ed:	45		
Barrier Near Lane CL Di	ist: 0		Centerline Separation:		24		
Barrier Far lane CL Dist:	. 0			NO	ISE INPUT	S	
Pad Elevation:	0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:	0		FLEET MIX				
Observer Height (above	grade): 5.5		Туре	Day	Evening	Night	Daily
Barrier Height:	0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	CE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0						
Medium Trucks:	2.3						
Heavy Trucks:	8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)								
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	53.1	61.9	60.1	54.0	62.6	63.2		
Medium Trucks:	61.4	53.3	46.9	45.3	53.8	54.1		
Heavy Trucks:	65.9	53.9	44.9	46.1	55.6	55.8		
Vehicle Noise:	68.2	63.2	60.4	55.3	63.9	64.4		

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	218					
65 dBA	101					
70 dBA	47					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

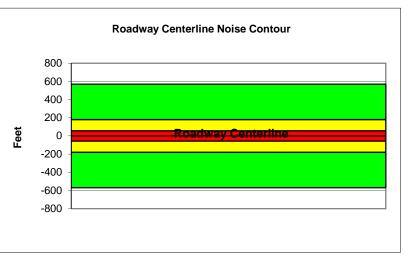


		Federal Highw Traffic Noise						
Project Name:	Tracy Hills EIR			Scenario: Future Plus Project				
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Tracy Boulevar	d						
Road Segment:	Valpico Road to	b Linne Road						
	PROJECT DA	ГА			S	SITE DATA		
Centerline Dist to E	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	24345		
Receiver Barrier Di	st:	0		Peak Hour Ti	raffic:	2434.5		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	40		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	40		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is <b>HARD SI</b>	TE		
Road Elevation:		0			F	LEET MIX		
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft	View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE S	OURCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	55.3	64.1	62.3	56.2	64.8	65.5	
Medium Trucks:	64.2	56.2	49.8	48.2	56.7	56.9	
Heavy Trucks:	69.1	57.2	48.1	49.3	59.0	59.2	
Vehicle Noise:	71.5	65.6	62.7	57.8	66.4	66.8	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	570						
65 dBA	180						
70 dBA	57						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

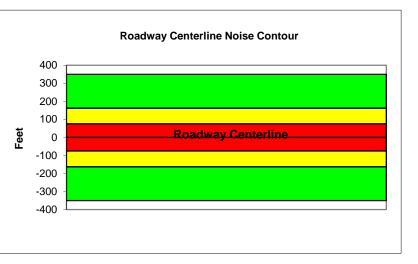


		Federal Highv Traffic Noise							
Project Name:	Tracy Hills				Scenario:	Future Plus	s Project		
Analyst:	Ryan Chier	ne			Job #:	135721			
Roadway:	Linne Road	l							
Road Segment:	Corral Hollo	ow Road to Trac	y Boule	vard					
Р	ROJECT DA	TA			S	SITE DATA			
Centerline Dist to Bar	rier:	0		Road Grade:		0			
Barrier (0=wall, 1= be	rm):	0		Average Dail	y Traffic:	39185			
Receiver Barrier Dist:		0		Peak Hour Traffic:		3918.5			
Centerline Dist. To Ob	bserver:	100		Vehicle Speed:		45			
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	24			
Barrier Far lane CL Di	ist:	0			NC	<b>ISE INPUT</b>	S		
Pad Elevation:		0.5		Site conditions: SOFT SITE					
Road Elevation:		0		FLEET MIX					
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 9	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	JRCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.2	64.9	63.2	57.1	65.7	66.3
Medium Trucks:	64.4	56.4	50.0	48.4	56.9	57.1
Heavy Trucks:	69.0	57.0	48.0	49.2	58.7	58.9
Vehicle Noise:	71.3	66.2	63.5	58.4	67.0	67.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	350					
65 dBA	162					
70 dBA	75					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

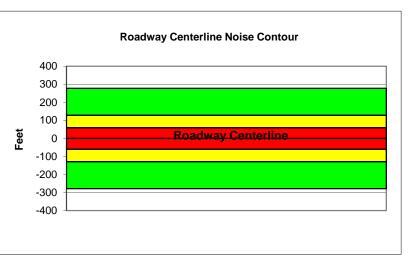


				ninistration F on Model (C				
Project Name:	Tracy Hills EIF				Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Linne Road							
Road Segment:	Tracy Bouleva	rd to MacArt	hur Driv	e				
PI	ROJECT DATA	L			5	SITE DATA		
Centerline Dist to Barr	ier:	0		Road Grade:		0		
Barrier (0=wall, 1= ber	m):	0		Average Dail	y Traffic:	27730		
Receiver Barrier Dist:		0		Peak Hour Traffic:		2773		
Centerline Dist. To Ob	server:	100		Vehicle Speed:		45		
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	24		
Barrier Far lane CL Dis	st:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		FLEET MIX				
Observer Height (abov	/e grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	) Lft	View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	RCE ELEVATIO	ONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.7	63.4	61.6	55.6	64.2	64.8
Medium Trucks:	62.9	54.9	48.5	46.9	55.4	55.6
Heavy Trucks:	67.5	55.5	46.5	47.7	57.2	57.4
Vehicle Noise:	69.8	64.7	62.0	56.9	65.5	66.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	278					
65 dBA	129					
70 dBA	60					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

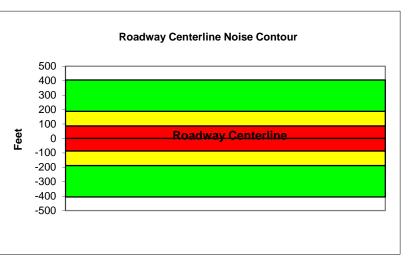


		Federal Highv Traffic Noise						
Project Name:	Tracy Hills			Scenario: Future Plus Project				
Analyst:	Ryan Chiei	ne			Job #:	135721		
Roadway:	Lammers F	Road						
Road Segment:	Old Schulte	e Road to Valpic	o Road					
Р	ROJECT DA	ATA			5	SITE DATA		
Centerline Dist to Bar	rier:	0		Road Grade:		0		
Barrier (0=wall, 1= be	,	0		Average Dail	y Traffic:	64740		
Receiver Barrier Dist:		0		Peak Hour Traffic:		6474		
Centerline Dist. To Ob	bserver:	100		Vehicle Speed:		40		
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	20		
Barrier Far lane CL Di	ist:	0			NC	ISE INPUT	S	
Pad Elevation:		0.5		Site conditior	ns:SOFT SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (abo	ve grade):	5.5		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 9	0	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	JRCE ELEVA	ATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.0	65.8	64.0	57.9	66.5	67.1
Medium Trucks:	65.9	57.9	51.5	49.9	58.4	58.6
Heavy Trucks:	70.8	58.8	49.8	51.0	60.7	60.8
Vehicle Noise:	73.1	67.3	64.4	59.5	68.0	68.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	405					
65 dBA	188					
70 dBA	87					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

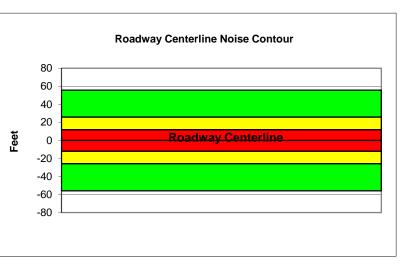


		eral Highway fic Noise Pre							
Project Name:	Tracy Hills EIR				Scenario:	Future Plus	s Project		
Analyst:	Ryan Chiene				Job #:	135721			
Roadway:	Tracy Boulevard								
Road Segment:	South of Linne R	oad							
P	ROJECT DATA				S	SITE DATA			
Centerline Dist to Barr	ier:	0		Road Grade:		0			
Barrier (0=wall, 1= ber	·m):	0		Average Dail	y Traffic:	3310			
Receiver Barrier Dist:		0		Peak Hour T	raffic:	331			
Centerline Dist. To Ob	server:	100		Vehicle Spee	d:	40			
Barrier Near Lane CL	Dist:	0		Centerline Se	eparation:	22			
Barrier Far lane CL Di	st:	0			NO	ISE INPUT	S		
Pad Elevation:		0.5		Site condition	ns:SOFT SI	ΓE			
Road Elevation:		0		FLEET MIX					
Observer Height (abov	ve grade):	5.5		Туре	Day	Evening	Night	Daily	
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742	
Rt View: 90	D Lft Vi	ew:	-90	Med. Truck	0.848	0.049	0.103	0.0184	
NOISE SOU	RCE ELEVATION	S (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074	
Autos:		0							
Medium Trucks:		2.3							
Heavy Trucks:		8							

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	44.0	52.8	51.0	44.9	53.6	54.2	
Medium Trucks:	53.0	44.9	38.5	36.9	45.4	45.7	
Heavy Trucks:	57.8	45.9	36.8	38.0	47.7	47.9	
Vehicle Noise:	60.2	54.4	51.4	46.5	55.1	55.6	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	56					
65 dBA	26					
70 dBA	12					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

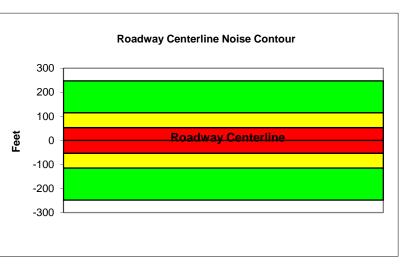


		eral Highway A fic Noise Pred						
Project Name:	Tracy Hills EIR					Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Linne Road							
Road Segment:	East of Chrismar	n Road						
P	ROJECT DATA				5	SITE DATA		
Centerline Dist to Barr	ier:	0	F	Road Grade:		0		
Barrier (0=wall, 1= ber	m):	0	A	Average Dail	y Traffic:	14140		
Receiver Barrier Dist:		0	F	Peak Hour Ti	raffic:	1414		
Centerline Dist. To Ob	server:	100	V	Vehicle Speed:		55		
Barrier Near Lane CL	Dist:	0	C	Centerline Se	eparation:	24		
Barrier Far lane CL Dis	st:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5	S	Site conditior	ns:SOFT SI	ΓE		
Road Elevation:		0		FLEET MIX				
Observer Height (abov	ve grade):	5.5	Т	Гуре	Day	Evening	Night	Daily
Barrier Height:		0	A	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft Vie	ew: -	- <b>90</b> N	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	RCE ELEVATION	S (Feet)	H	leavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	54.2	63.0	61.2	55.2	63.8	64.4	
Medium Trucks:	61.4	53.3	46.9	45.3	53.8	54.1	
Heavy Trucks:	65.3	53.4	44.3	45.6	54.8	54.9	
Vehicle Noise:	67.6	64.0	61.5	56.1	64.7	65.2	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	248					
65 dBA	115					
70 dBA	53					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

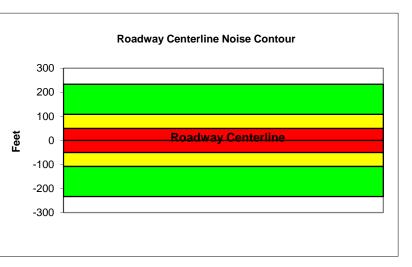


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)							
Project Name:	Tracy Hills EIR		· ·	Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Linne Road						
Road Segment:	MacArthur Drive to 0	Chrisman Road	ł				
PR	OJECT DATA			5	SITE DATA		
Centerline Dist to Barrie	er:	0	Road Grade:		0		
Barrier (0=wall, 1= bern	n):	0	Average Dail	y Traffic:	21360		
Receiver Barrier Dist:		0	Peak Hour T	raffic:	2136		
Centerline Dist. To Obs	server: 10	0	Vehicle Spee	ed:	45		
Barrier Near Lane CL D	Dist:	0	Centerline Se	eparation:	24		
Barrier Far lane CL Dis	t:	0		NC	ISE INPUT	S	
Pad Elevation:	0.	5	Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		F	LEET MIX		
Observer Height (above	e grade): 5.	5	Туре	Day	Evening	Night	Daily
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	CE ELEVATIONS (	Feet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0					
Medium Trucks:	2.	3					
Heavy Trucks:		8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.5	62.3	60.5	54.4	63.1	63.7
Medium Trucks:	61.8	53.7	47.4	45.8	54.3	54.5
Heavy Trucks:	66.3	54.4	45.3	46.5	56.1	56.2
Vehicle Noise:	68.7	63.6	60.9	55.7	64.3	64.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

CENTERLINE NOISE	CENTERLINE NOISE CONTOUR					
Unmitigated						
60 dBA	233					
65 dBA	108					
70 dBA	50					
Mitigated						
60 dBA						
65 dBA						
70 dBA						

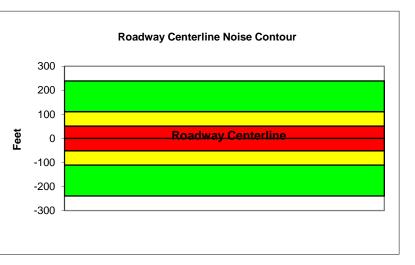


		l Highway Adn Noise Predicti					
Project Name:	Tracy Hills EIR		· ·	Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Altamont Pass Road	b					
Road Segment:	West of Greenville F	Road					
PR	ROJECT DATA			5	SITE DATA		
Centerline Dist to Barri	er:	0	Road Grade:		0		
Barrier (0=wall, 1= berr	m):	0	Average Dail	y Traffic:	22140		
Receiver Barrier Dist:		0	Peak Hour T	raffic:	2214		
Centerline Dist. To Obs	server: 10	0	Vehicle Spee	ed:	45		
Barrier Near Lane CL	Dist:	0	Centerline Se	eparation:	26		
Barrier Far lane CL Dis	st:	0		NC	ISE INPUT	S	
Pad Elevation:	0.	5	Site conditior	ns:SOFT SI	ΤE		
Road Elevation:		0		F	LEET MIX		
Observer Height (abov	e grade): 5.	5	Туре	Day	Evening	Night	Daily
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOUR	RCE ELEVATIONS (	Feet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0					
Medium Trucks:	2.	3					
Heavy Trucks:		8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	53.6	62.4	60.6	54.5	63.2	63.8	
Medium Trucks:	61.9	53.8	47.5	45.9	54.4	54.6	
Heavy Trucks:	66.4	54.5	45.4	46.7	56.2	56.3	
Vehicle Noise:	68.8	63.7	61.0	55.8	64.4	64.9	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE	CONTOUR
Unmitigated	
60 dBA	239
65 dBA	111
70 dBA	52
Mitigated	
60 dBA	
65 dBA	
70 dBA	

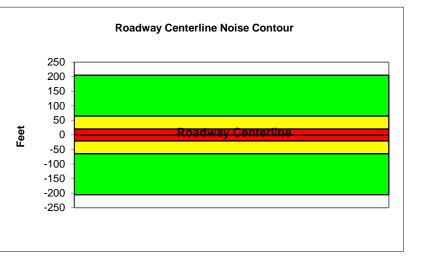


Federal Highway Administration RD-77-108 Traffic Noise Prediction Model (CALVENO)								
Project Name:	Tracy Hills EIR			-	-	Future Plus	s Project	
Analyst:	Ryan Chiene				Job #:	135721		
Roadway:	Patterson Pass	Road						
Road Segment:	West of Green	ville Road						
	PROJECT DA	ГА			S	SITE DATA		
Centerline Dist to B	Barrier	0		Road Grade:		0		
Barrier (0=wall, 1=	berm):	0		Average Dail	y Traffic:	6620		
Receiver Barrier Di	st:	0		Peak Hour Ti	affic:	662		
Centerline Dist. To	Observer:	100		Vehicle Spee	d:	45		
Barrier Near Lane	CL Dist:	0		Centerline Se	eparation:	42		
Barrier Far lane CL	Dist:	0			NO	ISE INPUT	S	
Pad Elevation:		0.5		Site condition	is HARD SI	TE		
Road Elevation:		0		FLEET MIX				
Observer Height (a	bove grade):	0		Туре	Day	Evening	Night	Daily
Barrier Height:		0		Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft	View:	-90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SO	OURCE ELEVA	TIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0						
Medium Trucks:		2.3						
Heavy Trucks:		8						

UNMITIG	UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	51.1	59.9	58.1	52.0	60.6	61.2	
Medium Trucks:	59.4	51.3	44.9	43.3	51.8	52.1	
Heavy Trucks:	63.9	51.9	42.9	44.1	53.6	53.8	
Vehicle Noise:	66.2	61.2	58.4	53.3	61.9	62.4	

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)							
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:							
Medium Trucks:							
Heavy Trucks:							
Vehicle Noise:							

	CENTERLINE NOISE CONTOUR						
Unmitigated							
60 dBA	206						
65 dBA	65						
70 dBA	21						
Mitigated							
60 dBA							
65 dBA							
70 dBA							

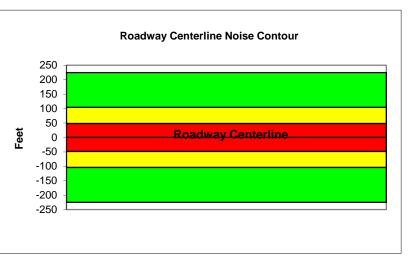


		eral Highway A fic Noise Predi					
Project Name:	Tracy Hills EIR			Scenario:	Future Plus	s Project	
Analyst:	Ryan Chiene			Job #:	135721		
Roadway:	Tesla Road						
Road Segment:	West of Greenvil	le Road					
Р	ROJECT DATA			S	SITE DATA		
Centerline Dist to Barr	rier:	0	Road Grade		0		
Barrier (0=wall, 1= bei	rm):	0	Average Dai	y Traffic:	15520		
<b>Receiver Barrier Dist:</b>		0	Peak Hour T	raffic:	1552		
Centerline Dist. To Ob	oserver:	100	Vehicle Spee	ed:	50		
Barrier Near Lane CL	Dist:	0	Centerline S	eparation:	24		
Barrier Far lane CL Di	st:	0		NC	ISE INPUT	S	
Pad Elevation:		0.5	Site condition	ns: <b>SOFT SI</b>	TE		
Road Elevation:		0		F	LEET MIX		
Observer Height (abov	ve grade):	5.5	Туре	Day	Evening	Night	Daily
Barrier Height:		0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	D Lft Vi	ew: -9	0 Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOU	RCE ELEVATION	S (Feet)	Heavy Truck	0.865	0.027	0.108	0.0074
Autos:		0					
Medium Trucks:		2.3					
Heavy Trucks:		8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.5	62.2	60.4	54.4	63.0	63.6
Medium Trucks:	61.1	53.1	46.7	45.1	53.6	53.8
Heavy Trucks:	65.4	53.4	44.4	45.6	55.0	55.1
Vehicle Noise:	67.7	63.3	60.8	55.5	64.1	64.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR		
Unmitigated		
60 dBA	225	
65 dBA	104	
70 dBA	48	
Mitigated		
60 dBA		
65 dBA		
70 dBA		





# **TRACY HILLS PHASE 1**

## NOISE IMPACT ANALYSIS CITY OF TRACY

Prepared for:

The Tracy Hills Project Owner, LLC 3 San Joaquin Plaza, Suite 100 Newport Beach, CA 92660

Prepared by:

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November 14, 2013

JN:08559-10 Report.docx

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## LIST OF ABBREVIATED TERMS

(1)	Reference
AADT	Annual Average Daily Truck Traffic
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
FHWA	Federal Highway Administration
INCE	institute of Noise Control Engineering
K-Factor	Traffic Noise Model Correction Factor
Leq	Equivalent continuous sound level
Lmax	Maximum level measured over the time interval
Lmin	Minimum level measured over the time interval
mph	Miles per hour
NLR	Noise Level Reduction
NSR	Noise Study Report
NAC	Noise Abatement Criteria
Project	Tracy Hills Phase 1
RCNM	Roadway Construction Noise Model
STC	Sound Transmission Class
TeNS	Technical Noise Supplement
TNM	Traffic Noise Model Version 2.5



## **EXECUTIVE SUMMARY**

A noise study has been completed to determine the noise exposure and the necessary noise abatement measures for the proposed Tracy Hills Phase 1 residential ("Project"). The project site is located east of Interstate 580 (I-580) and north of South Corral Hollow Road in the City of Tracy. The purpose of this noise analysis is to ensure that the proposed development is compatible with the existing and future noise environment.

#### **ON-SITE TRAFFIC NOISE IMPACTS**

The results of this analysis indicate that future vehicle noise from the I-580 Freeway is the principal sources of community noise that will impact the project site. Based on the noise exposure potential for the Tracy Hills Phase 1, the project site plan was specifically designed to account for the noise impacts associated with the I-580 Freeway. To reduce the noise exposure to the noise sensitive residential areas, several design features were considered as part of the site planning process. These design features include, providing additional setbacks, changing the residential building orientations to limit private uses facing the I-580 Freeway, providing noise barriers where possible (berms and masonry walls), as well as plans to provided enhanced noise rated building assembly design and insulation features.

#### EXTERIOR NOISE LEVELS

To predict the future exterior noise levels, a traffic noise prediction model was developed. Using the Tracy Hills Phase 1 noise prediction model, the flown aerial topographic files and the project grading plans, the future on-site exterior noise levels are expected to range from 58.9 to 73.3 dBA CNEL with the construction of the planned eight foot high noise barrier. Exhibit ES-1 illustrates the future exterior noise level impacts and the location of the planned eight-foot high noise barrier for the Tracy Hills Phase 1 project.

Based on the City of Tracy Land Use Compatibility for Community Noise Environments, singlefamily residential exterior noise levels of less than 75 dBA CNEL are considered as "Conditionally Acceptable" provided that a detailed analysis of the noise reduction requirements and needed noise insulation features have been included in the design.

#### INTERIOR NOISE LEVELS

To satisfy the City of Tracy 45 dBA CNEL interior noise level criteria, lots facing the I-580 Freeway will require a Noise Level Reduction (NLR) of up to 28.3 dBA and a windows closed condition necessitating a means of mechanical ventilation (e.g. air conditioning). The interior noise level analysis shows that the City of Tracy 45 dBA CNEL interior noise level standards can likely be satisfied using upgraded windows with a minimum STC rating of 33. With the recommended interior noise abatement measures provided in this study, the proposed Tracy Hills Phase 1 Project is expected to meet the City of Tracy 45 dBA CNEL interior noise level standards for residential development. A final noise study shall be prepared prior to obtaining building permits for the Project. This report will finalize the abatement measures that are proposed in this report using the precise grading plans and actual building design specifications.



#### **OFF-SITE TRAFFIC NOISE IMPACTS**

Traffic generated by the Project will influence the off-site traffic noise levels in surrounding areas. To quantify the traffic noise impacts off-site on the surrounding areas, the changes in traffic noise levels on 18 roadway segments surrounding the Project site were estimated based on the change in the average daily traffic volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts provided in the *Tracy Hills Phase 1 Traffic Impact Analysis* prepared by Kimley-Horn Associates, October 2013.

To assess the noise level impacts associated with the Project, noise contour boundaries were developed for Existing, Existing Plus Project and Cumulative traffic conditions. This analysis shows that the development of the Project will generate an unmitigated exterior noise level increase of up to 4.1 dBA CNEL. Based on the noise impact significance criteria described in Section 4.2, this off-site traffic noise level increase is considered a significant impact for existing with project conditions.



#### EXHIBIT ES-1: TRAFFIC NOISE ANALYSIS

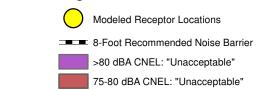




#### Legend

100 200

FEET



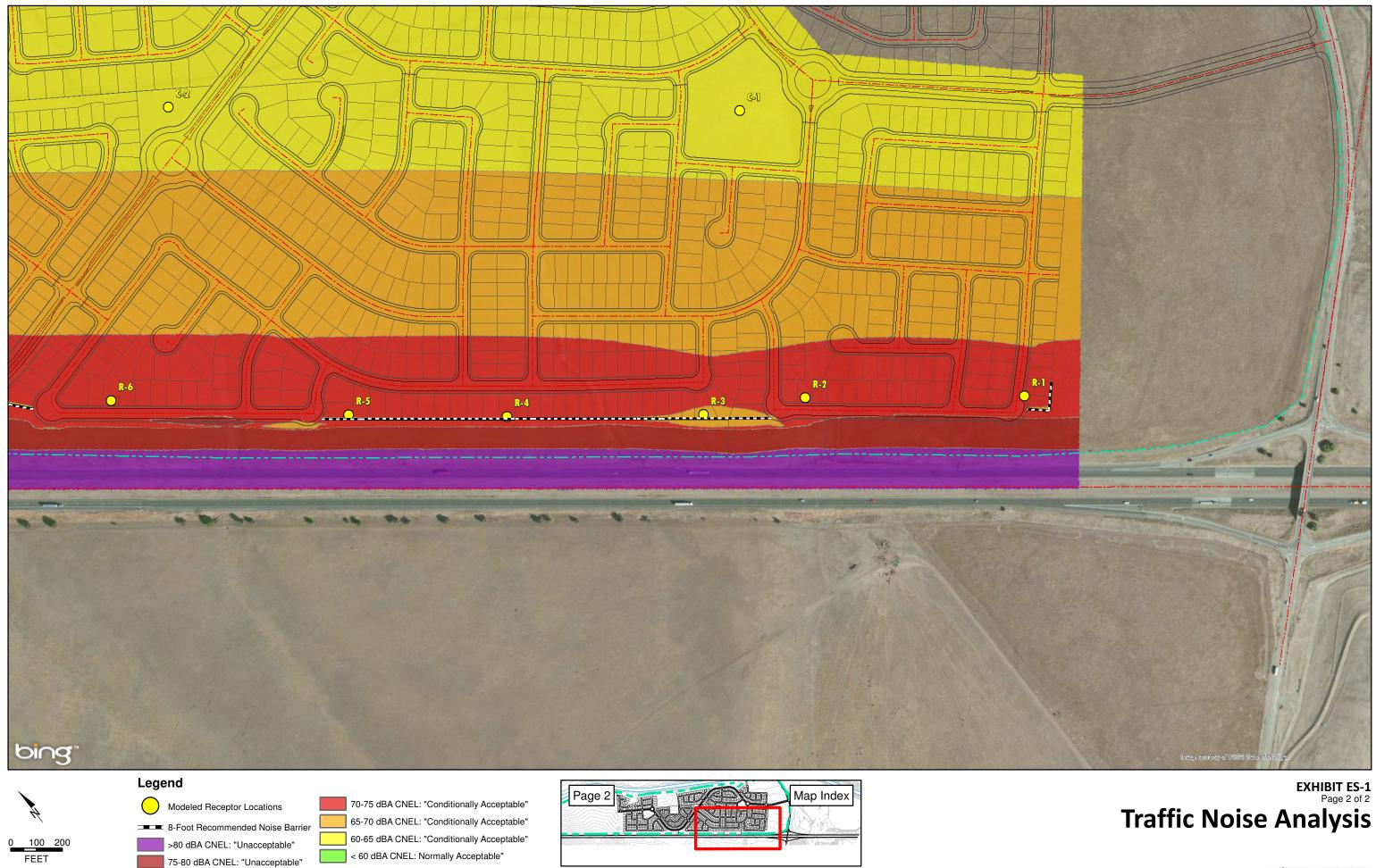
70-75 dBA CNEL: "Conditionally Acceptable"
65-70 dBA CNEL: "Conditionally Acceptable"
60-65 dBA CNEL: "Conditionally Acceptable"
< 60 dBA CNEL: Normally Acceptable"</li>



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## EXHIBIT ES-1 Page 1 of 2 Traffic Noise Analysis



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## 1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Tracy Hills Phase 1 project. This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, describes the local regulatory setting, provides the study methods and procedures for traffic noise analysis, and evaluates the future exterior noise environment.

#### **1.1** SITE LOCATION

The proposed Tracy Hills Phase 1 development is located within the City of Tracy, east of Interstate 580 (I-580) and north of South Corral Hollow Road as shown on Exhibit 1-A. The Project site is currently vacant and undeveloped.



#### EXHIBIT 1-A: LOCATION MAP



### **1.2 PROJECT DESCRIPTION**

The Project includes construction of approximately 1,200 residential lots and 50 acres of business park use, Exhibit 1-B illustrates a preliminary conceptual site plan.

#### EXHIBIT 1-B: SITE PLAN





## 2 FUNDAMENTALS

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140		
NEAR JET ENGINE		130	INTOLERABLE OR	
		120	DEAFENING	HEARING LOSS
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100		
GAS LAWN MOWER AT 1m (3 ft)		90	VERY NOISY	
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70		SPEECH
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60	2000	ATTENTENENCE.
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		DISTURBANCE
QUIET SUBURBAN NIGHTTIME	LIBRARY	30		
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20	FAINT	
	BROADCAST/RECORDING STUDIO	10		NO EFFECT
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0	VERY FAINT	

#### EXHIBIT 2-A: TYPICAL NOISE LEVELS

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

### 2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud.(1) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort.(2) Another



important aspect of noise is the duration of the sound and the way it is described and distributed in time.

### 2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite twenty-four hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7 p.m. to 10 p.m., and the additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure. The City of Tracy relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

#### 2.3 SOUND PROPAGATION

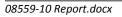
When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

#### 2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

#### **2.3.2 GROUND ABSORPTION**

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also





been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source.

#### **2.3.3** Atmospheric Effects

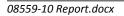
Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 ft) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

#### 2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure.

#### **2.4** TRAFFIC NOISE PREDICTION

According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance,* provided by the Federal Highway Administration, the level of traffic noise depends on three primary factors: the volume of the traffic, the speed of the traffic, and the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks.(3) A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway.





#### 2.5 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements.

#### **2.6** Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source. (3)

#### 2.7 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches and residences are more sensitive to noise intrusion than are commercial or industrial activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process.

The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (4)

#### **2.8** COMMUNITY RESPONSE TO NOISE

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon each individual's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level of the receptor;
- Noise receptor's perception that they are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Receptor's belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (5) Surveys have shown that about ten percent of the



people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (5)

Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered "barely perceptible," and changes of 5 dBA are considered "readily perceptible." (3)



## **3 REGULATORY SETTING**

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

#### 3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. (6) The purpose of the Noise Element is to "limit the exposure of the community to excessive noise levels". In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

#### **3.2** STATE OF CALIFORNIA BUILDING CODE

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL. There is no interior noise standard for industrial warehousing uses such as the building proposed by the Tracy Hills Phase 1.

### 3.3 CITY OF TRACY GENERAL PLAN NOISE ELEMENT

The City of Tracy General Plan Noise Element (7) identifies several policies to minimize the impacts of excessive noise levels throughout the community. The General Plan Noise Element policies are designed to accomplish the following objectives:



- Ensure appropriate exterior and interior noise levels for new development (Objective N-1.1),
- Control sources of excessive noise (Objective N-1.2)
- Consider noise issues in the development review process (Objective N-1.3)

The objectives and policies contained in the General Plan Noise Element (included in Appendix 3.1) can also be described in terms of land use compatibility, transportation related noise sources, and non-transportation related noise sources.

#### **3.3.1 LAND COMPATIBILITY**

To ensure that residents are protected from excessive noise, the City of Tracy General Plan Noise Element provides guidelines to evaluate the Land Use Compatibility for Community Noise Environment (Figure 9-3). These guidelines are based on the Governor's Office of Planning and Research (6) and are used to assess the Community Noise Environment on land uses. According to the Land Use Compatibility for Community Noise Environment guidelines, noise sensitive land uses such as single family residences are *normally acceptable* with exterior noise levels below 60 dBA CNEL and *conditionally acceptable* with noise levels below 75 dBA CNEL. For multi-family residential, exterior noise levels below 65 dBA CNEL are considered *normally acceptable*. The City of Tracy General Plan Noise Element is included in Appendix 3.1.

#### **3.3.2** TRANSPORTATION RELATED NOISE SOURCES(8)

The General Plan Noise Element defines the appropriate exterior and interior noise levels in Objective N-1.1 for new land uses and requires that measures be incorporated into all new development to attenuate exterior and/or interior noise levels to those considered normally acceptable for the land use. Specifically, Policy P3 states that all new single family residential development shall maintain a noise standard of 60 CNEL for exterior noise in private use areas and Policy P6 states that all multi-family residential developments shall maintain a standard of 65 CNEL for community outdoor recreation areas. Policy P5 states that all new residential projects shall maintain an interior standard of 45 CNEL. In areas where the existing noise level is above 60 CNEL, the proposed General Plan states that new residential projects shall be analyzed according to protocols in the California Building code (Policy P8). Further, Policy P9 states that measures to attenuate exterior and/or interior noise levels to acceptable levels shall be incorporated into all developments.

Further, the City shall not allow new noise sensitive land uses in areas where measures cannot be implemented to reduce noise levels to normally acceptable levels (Policy P1). Additional policies would reduce the impacts of introducing noise sensitive uses in noisy areas by considering noise issues in the development review process and requiring that significant noise impacts be mitigated. The implementation of the General Plan Noise Element policies would adequately reduce noise impacts to a less-than-significant level.

#### **3.3.3** NON-TRANSPORTATION RELATED NOISE SOURCES

The most effective method to control community noise impacts from non-transportation noise sources is through the application of a community noise control ordinance. The policies contained in the Noise Control Ordinance (9) are designed to protect residents from the

negative effects of "spillover" or nuisance noise. Nuisance noise conflicts would be caused by noise sources such as outdoor dining areas or bars, mechanical equipment, outdoor maintenance areas, truck loading docks and parking lots. The City of Tracy Noise Control Ordinance is included in Appendix 3.2.

The City of Tracy has set restrictions to control noise impacts associated with the construction of the proposed project. Objective N-1.2 Policy P4 limits construction in the vicinity of noise sensitive land uses during the daylight hours or 7:00 a.m. to 7:00 p.m.



## 4 SIGNIFICANCE CRITERIA

The following significance criteria are based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. For the purposes of this report, noise impacts would be potentially significant if the Project is determined to result in or cause:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- A substantial permanent increase in ambient noise levels in the Project vicinity above existing levels without the proposed Project; or
- A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above noise levels existing without the proposed Project.

While the CEQA Guidelines and the City of Tracy noise standards provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts under the first threshold, they do not define the levels at which increases are considered substantial for use under the second and third threshold. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels and the location of noise-sensitive receptors in order to determine if a noise increase represents a significant adverse environmental impact.

### 4.1 DIRECT PROJECT IMPACTS

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development:

- If single family residential development exceeds the *"normally acceptable"* exterior noise level of 60 dBA CNEL in private use areas
- If multi-family residential exceeds the "*normally acceptable*" exterior noise level of 65 dBA CNEL for outdoor recreation areas.
- If any new residential development exceeds an interior standard of 45 CNEL.
- If project-related construction activities occur in the vicinity of noise sensitive land uses during the daylight hours or 7:00 a.m. to 7:00 p.m.

#### 4.2 CUMULATIVE PROJECT IMPACTS

The level of significance attributed to the cumulative project impacts are based on the noise levels with and without the project. The significance of cumulative noise impacts varies depending on the condition of the environment and the project related noise level increases. For example, if the ambient noise environment is quiet and the new noise source greatly increase the noise levels, an impact may occur even though the noise criteria might not be exceeded. Therefore, for the purpose of this analysis, a "readily perceptible" a 5 dBA or greater project related noise level increase is considered a significant impact.



In areas where the without project noise levels range from 60 to 65 dBA and noise levels impacts become noticeable at some value of greater than 1 dBA, and a 3 dBA "barely perceptible" noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact since it likely contributes to an existing noise deficiency. Table 4.1 below provides a summary of the cumulative noise impact significance criteria.

Without Project Noise Level (CNEL)	Project Related Significant Impact
< 60 dBA	5 dBA or more
60 - 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

#### TABLE 4-1: SIGNIFICANCE OF CUMULATIVE NOISE IMPACTS

Based on the Community Response to Noise Surveys contained in the U.S. Environmental Protection Agency Office of Noise Abatement and Control, Noise Effects Handbook-A Desk Reference to Health and Welfare Effect of Noise, October 1979 (revised July 1981).



## 5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, two long-term (LT) twenty-four hour and four short-term (ST) twenty minute noise measurements were taken at noise sensitive receptor locations in the Project study area. Noise sensitive receptors are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Since it is not practical to collect measurements at each individual building or residence, each receptor measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receptor shares similar shielding, terrain, and geometric relationship to the reference noise source. While receptors represent a location of noise sensitive areas, receivers represent noise modeling locations used to estimate the future noise level impacts

#### 5.1 LONG-TERM NOISE LEVEL MEASUREMENTS

To describe the typical weekday noise environment and identify the peak noise hour, two longterm hourly noise level measurements were collected within the project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. The noise level measurements were recorded by Urban Crossroads, Inc. on Thursday, May 30, 2013. Appendix 5.1 includes study area photos

#### 5.1.1 LONG-TERM MEASUREMENT PROCEDURE AND CRITERIA

The long-term noise level measurements were recorded using two Quest DL Pro data logging Type 2 noise dosimeters. The Quest DL noise dosimeters were calibrated using a Quest QC-10 calibrator. The long-term noise level measurement results are included in Appendix 5.2.

#### 5.1.2 LONG-TERM MEASUREMENT RESULTS

The results of the long-term noise level measurements are presented in Table 5-1. Table 5-1 identifies the observed energy average hourly noise levels observed between the hours of 3 a.m. and 8 a.m. Recognizing that measurements should not be made when wind speeds exceed 12 mph (10) the remaining hours with wind speeds exceeding 8 mph were not included in the average hourly noise level summary. Wind conditions exceeding 8 mph are common throughout the project area. This is reflected in the fact that wind mills are located near the project site. Appendix 5.2 provides a summary of the long-term existing hourly ambient noise level measurements and meteorological conditions at the locations described below:

- Location LT-1 was positioned north at the edge of Caltrans Right-of-Way approximately 40 feet north of the edge of pavement for the northbound I-580 travel lanes. The existing energy (logarithmic) average hourly noise level observed at this location was measured at 72.6 dBA
- Location LT-2 represents the center of the project site approximately 1,700 feet north of the edge of pavement for the northbound I-580 travel lanes. The observed energy average hourly noise level produced a measurement of 55.0 dBA Leq.



Observer Location <sup>1</sup>	Date Description		Average Hourly Noise Level (Leq dBA) <sup>2</sup>
LT-1	10/30/2013	At the edge of Caltrans Right-of-Way approximately 40 feet north of the edge of pavement for the northbound I-580 travel lanes.	72.6
LT-2	10/30/2013	In the center of the project site approximately 1,700 feet north of the edge of pavement for the northbound I-580 travel lanes.	55.0

### TABLE 5-1: LONG-TERM (AMBIENT) NOISE LEVEL MEASUREMENTS

<sup>1</sup>See Exhibit 5-A for the location of the monitoring sites.

<sup>2</sup> Energy (logarithmic) average hourly levels observed between the hours of between 3am and 8am. Due to wind conditions exceeding 8 mph, the remaining hours were not included in the Average Hourly Noise Level Summary. The long-term measurements printouts are included in Appendix 5.2.

### 5.2 SHORT-TERM NOISE LEVEL MEASUREMENT

To describe the peak hour weekday noise environment, four short-term (twenty-minute) noise level measurements were collected at noise sensitive receptors locations within the project study area as shown on Exhibit 5-A.

### 5.2.1 PROCEDURES AND CRITERIA

Short-term Noise level measurements were taken in accordance with the procedures described in the with Caltrans Technical Noise Supplement (TeNS).(11) All short-term noise level measurements were collected using a Larson Davis Model 824 Type 1 precision sound level meter. The measurements were collected for a 20 minute time period at each location. The Larson Davis Model 824 sound level meter was calibrated before the monitoring using a Larson-Davis calibrator, Model CAL 150. All noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (Standard S1.4-1983).

To describe the existing traffic conditions, traffic volumes on the I-580 Freeway were classified and counted during each of the four short-term noise measurements. Vehicles were classified as automobiles, medium trucks, or heavy trucks. Automobiles are vehicles with two axles and four tires that are designed primarily to carry passengers; small vans and light trucks are included in this category. Medium trucks include all cargo vehicles with two axles and six tires. Heavy trucks include all vehicles with three or more axles. The posted speed limit on I-580 Freeway is 70 miles per hour (mph). The traffic conditions were modeled in TNM 2.5 (12) and compared to the field measurement results in order to calibrate the noise prediction model. Consistent with Caltrans Technical Noise Supplement (TeNS) (11) the following measurement procedures were utilized:

- Calibrate sound level meter before and after each measurement.
- Set up sound level meter at a height of 5 ft for all locations.
- A windscreen was placed over the microphone.
- Frequency weighting was set on "A" and "FAST" response.

- Commence noise monitoring.
- Collect site-specific data, such as date, time, direction of traffic, vehicle speed, and the location of the sound level meter relative to any existing feature.
- Count passing vehicles for a period of 20 minutes concurrently with noise measurement. Vehicles were split into three categories: automobiles, medium trucks, and heavy trucks.
- Wind speed, temperature, humidity, and weather conditions were observed and documented.
- During the noise measurements, any excessive noise contamination such as barking dogs, lawn mowers, and/or aircraft flyovers were noted.
- Measurements were stopped after 20 minutes.
- Calibrate sound level meter.
- Proceed to next monitoring site and repeat.

The traffic counts were expanded to hourly volumes (multiplied by three to normalize the results to hourly values) and entered into Traffic Noise Model (TNM) 2.5 for each monitoring site. The monitoring results were then used to calibrate the model outputs.

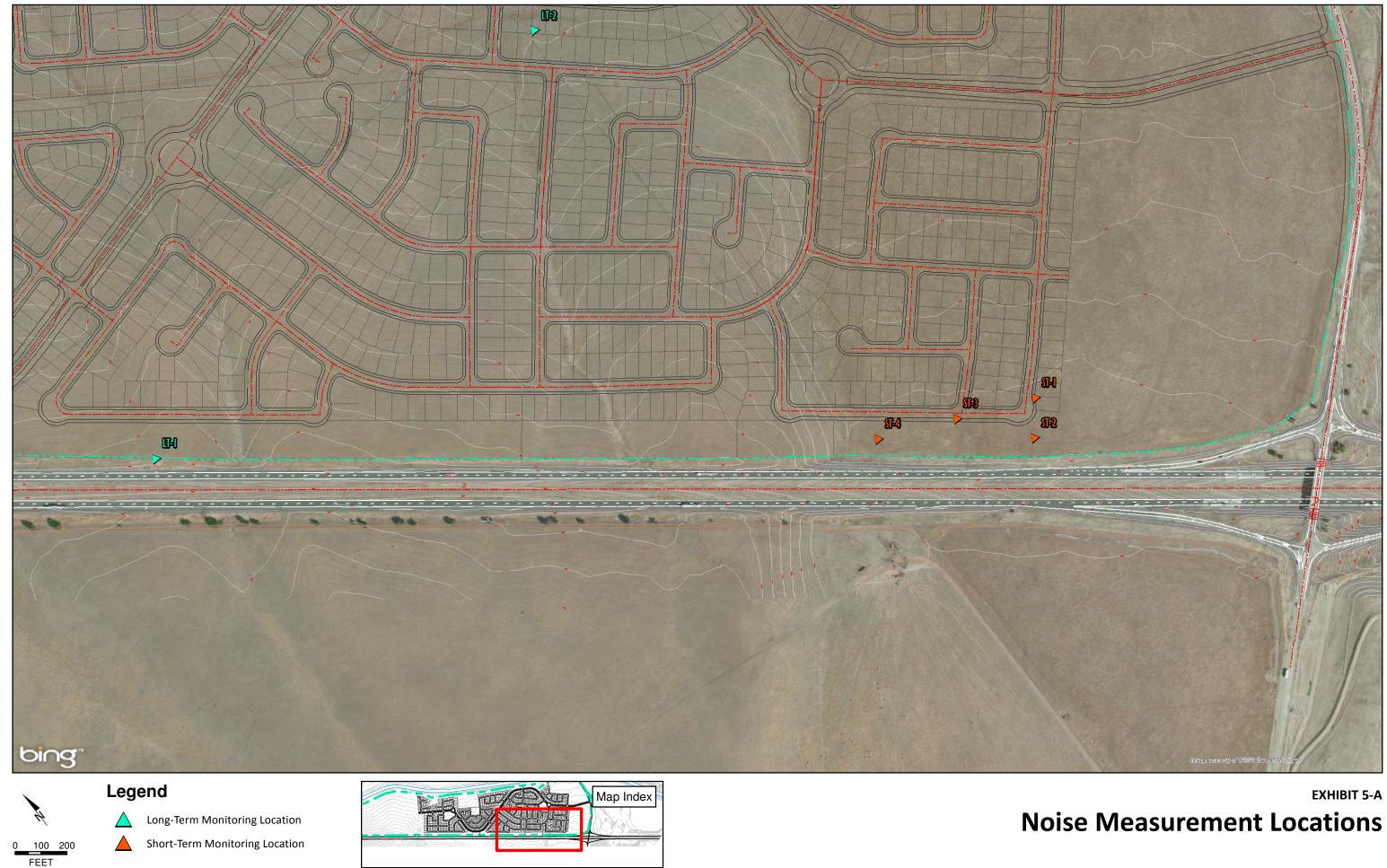
### 5.2.2 SHORT-TERM MEASUREMENT RESULTS

Short-term measurements were taken at four locations (ST-1 to ST-4) during free flow traffic conditions. To accurately describe the existing traffic conditions during each of the four short-term noise level measurements, traffic counts by vehicle type were collected concurrently during the same noise measurement period by vehicle type on the I-580 Freeway.

		<b>.</b>	<b>_</b>	Duration			Volume										
		Start Time	Duration (Minutes)	Date	Location	Autos	Medium Trucks	Heavy Trucks	Speed Limit (mph)								
ST-1	62.0	6:38	20	5/30/2013	I-580 NB	322	11	67	70/55								
31-1	02.0	AM	20	5/50/2015	I-580 SB	130	7	43	70/55								
ST-2	65.8	7:02	20	5/30/2013	I-580 NB	273	8	78	70/55								
51-2	05.0	AM	AM	AM	AM	AM	AM	AM	AM	AM	20	5, 50, 2015	I-580 SB	124	7	49	70/55
<u>ст 2</u>	64.2	7:25	20	E /20 /2012	I-580 NB	280	10	67	70/55								
ST-3	64.3	AM	20	5/30/2013	I-580 SB	119	5	26	70/55								
ST-4		7:48	20	г /20 /2012	I-580 NB	243	8	70	70/55								
51-4	65.6	AM	20	5/30/2013	I-580 SB	135	10	33	70/55								
	Average				I-580 NB	280	9	71	70/55								
					I-580 SB	127	7	38	70/55								

### TABLE 5-2: SHORT-TERM NOISE MEASUREMENT RESULTS







# 6 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future on and off-site traffic noise environment.

## 6.1 **ON-SITE TRAFFIC NOISE PREDICTION**

On-site Traffic noise levels were estimated using the FHWA Traffic Noise Model version 2.5 (TNM). TNM 2.5 is a computer model based on two FHWA reports: FHWA-PD-96-009 (13) and FHWA-PD-96-010. (12) TNM was used to predict the existing and future traffic noise levels at specific receiver locations. Inputs to TNM include:

- the three-dimensional coordinate of the roadways, noise receivers, and topographic or planned barrier that would affect noise propagation;
- vehicle volumes and speeds, by type of vehicle;
- absorptions factors based on modeled ground type; and
- adjustment factors (K-factors)

To ensure that the TNM accurately reflects the existing and future conditions, the elevations used for Tracy Hills Phase 1 noise prediction model were based on the flown aerial topographic files in combination with the project grading plan elevations.

### 6.1.1 MODEL CALIBRATION

To validate the accuracy of the model, TNM 2.5 was used to compare the measured traffic noise levels to the modeled noise levels. At each noise measurement location, the I-580 Freeway traffic volumes were collected at the same time as the short-term noise level measurements. Table 5-2 presents a summary of the traffic volumes counted at each short-term noise level measurement location. Using the average traffic counts by vehicle type (autos, medium truck and heavy trucks) the counts were then were normalized (20 minute traffic count multiple by a factor of 3 to arrive at an hourly estimate) in order to describe the one hour traffic conditions. The normalized average traffic volumes shown on Table 6-1 were then input into the traffic noise prediction model to simulate the traffic noise levels during the actual measurement period. Modeled and measured sound levels were then compared to validate the accuracy of the model and to determine if calibration of the model is necessary.

Recognizing that traffic noise prediction models cannot account for all the variables present in the real world, the models should be calibrated with actual measurements. The purpose of model calibration is to fine-tune the prediction model to actual site conditions that may not adequately accounted for by the model. (11) The calibration model run results shown on Table 6-2 suggest that the TNM model overstates the noise levels by 0.8 to 2.8 dBA Leq at the short-term noise level measurement location of ST-1 through ST-4. Depending on the results, correction factors known as K-Factors may be applied to each of the modeled receptor locations. However, since the differences between the model results and the actual measurements were less than 3 dBA, the raw TNM model results were validated without the need to apply the K-factors.



		Hourly Traf	fic Volume <sup>1</sup>	L	Vehicle Percentages			
Roadway	Auto	Medium Trucks	Heavy Trucks	Total	Auto	Medium Trucks	Heavy Trucks	Split <sup>2</sup>
I-580 Northbound	839	28	212	1,078	77.8%	2.6%	19.6%	67.6%
I-580 Southbound	381	22	113	516	73.8%	4.2%	21.9%	32.4%
Totals	1,220	50	325	1,594				

### TABLE 6-1: EXISTING PEAK HOUR TRAFFIC CONDITIONS

<sup>1</sup> Peak traffic conditions observed during short-term noise level measurements.

<sup>2</sup> Represents the peak hour northbound / southbound I-580 directional split.

ID	Measured Noise Level (dBA Leq)	Modeled Noise Level (dBA Leq)	K-Factor (dBA Leq)
ST-1	62.0	62.8	0.8
ST-2	65.8	68.6	2.8
ST-3	64.3	65.1	0.8
ST-4	65.6	66.9	1.3

### TABLE 6-2: CALIBRATION RESULTS

### 6.1.2 FUTURE TRAFFIC CONDITIONS

Based on a review of 2011 Annual Average Daily Truck Traffic (AADT) on the California Highway System, the I-580 Freeway currently serves 30,000 vehicles per day. (14) According to the Interstate 580 Transportation Concept Report, this volume is expected to increase to a future volume of approximately 70,000 vehicles per day. (15) Using the existing peak hour to AADT relationship and the normalized average vehicle mix observed during the short-term noise level measurements (Table 6-1) future hourly direction traffic volumes were estimated. The future hourly traffic volumes shown on Table 6-3 were used to estimate the worst-case future traffic conditions at noise receiver locations throughout the project study area.

### 6.1.3 NOISE LEVEL CONVERSION

The City of Tracy General Plan Noise Element relies on the 24-hour Community Noise Equivalent Level (CNEL) to assess land use compatibility with transportation noise level impacts. However, TNM is a peak hour based noise prediction model. Therefore, it is necessary to translate the peak hour based TNM results into a 24-hour CNEL for comparison to the City's noise criteria. Section 2.2.3 of the Caltrans Technical Noise Supplement provides a formula that allows a reasonably accurate conversion between the worst hourly noise levels to CNEL. For the I-580 Freeway the noise level conversion effectively adds 5 dBA to the peak hour Leq to arrive at an equivalent CNEL. Therefore, a peak hour noise level of 57 dBA Leq is equivalent to a daily level of 62 dBA CNEL.



				TNM Traffic Volume <sup>2</sup>				
Condition	Location	AADT	Peak Hour Volume <sup>1</sup>	Autos	Medium Trucks	Heavy Trucks		
	I-580 NB	20,287	1,078	839	28	212		
Existing (2012) <sup>3</sup>	I-580 SB	9,713	516	381	22	113		
(2012)	Total	30,000	1,594	1,220	50	325		
	I-580 NB	47,336	2,515	1,957	65	494		
Future <sup>4</sup>	I-580 SB	22,664	1,204	889	51	264		
	Total	70,000	3,719	2,846	116	758		

### TABLE 6-3: FUTURE TRAFFIC VOLUMES

<sup>1</sup> Peak hour volume based on directional split observed during existing peak hour traffic conditions (See Table 5-1).

<sup>2</sup> TNM peak hour traffic volumes (based on the existing peak hour to AADT traffic relationship) used to estimate the future levels.

<sup>3</sup> Annual Average Daily Traffic (AADT) obtained from Caltrans Traffic Data Branch 2011.

<sup>4</sup> Future I-580 AADT volumes provided in the Caltrans Interstate 580 Transportation Concept Report November 2003.

# 6.2 OFF-SITE TRAFFIC NOISE PREDICTION

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (16) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELS are substituted with the California Vehicle Noise (Calveno) Emission Levels.(17) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

Table 6-4 presents the roadway parameters used to assess the off-site transportation noise impacts. Table 6-4 identifies the 18 study area roadway segments, the functional roadway classifications according to the General Plan Circulation Element, the number of lanes and the vehicle speeds. For the purpose of this analysis, soft site conditions were used to analyze the traffic noise impacts for the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation.

The Existing, Existing Plus Project and Cumulative average daily traffic volumes used for this study a presented in Table 6-5 were provided by the *Tracy Hills Phase 1 Traffic Impact Analysis* prepared by Kimley-Horn Associates, October 2013. (18) Table 6-6 presents the hourly traffic flow distributions (vehicle mix) used for this analysis.



ID	Roadway	Segment	Roadway Section <sup>1</sup>	Vehicle Speed (MPH)
1	Tracy Boulevard	South of Linne Rd	Major Arterial	55
2	Tracy Boulevard	Btwn Linne Rd and Valpico Rd	Major Arterial	55
3	Tracy Boulevard	North of Valpico Rd	Major Arterial	55
4	Corral Hollow Road	Btwn I-580 EB Ramps and I-580-WB Ramps	Major Arterial	55
5	Corral Hollow Road	Btwn I-580 WB Ramps and Spine Rd	Major Arterial	55
6	Corral Hollow Road	Btwn Spine Rd and N. Tracy Hills Rd	Major Arterial	55
7	Corral Hollow Road	Btwn N. Tracy Hills Rd and Linne Rd	Major Arterial	55
8	Corral Hollow Road	Btwn Linne Rd and Valpico Rd	Major Arterial	55
9	Corral Hollow Road	Btwn Valpico Rd and Schulte Rd	Major Arterial	55
10	Corral Hollow Road	North of Schulte Rd	Major Arterial	55
11	Lammers Road	Btwn Valpico Rd and Old Schulte Rd	Major Arterial	55
12	Lammers Road	Btwn Old Schulte Rd and Eleventh St	Major Arterial	55
13	Lammers Road	North of Eleventh St	Minor Arterial	55
14	Linne Road	Btwn Corral Hollow Rd and Tracy Blvd	Major Arterial	55
15	Linne Road	East of Tracy Blvd	Major Arterial	55
16	Valpico Road	Btwn Lammers Rd and Corral Hollow Rd	Major Arterial	55
17	Valpico Road	Btwn Corral Hollow Rd and Tracy Blvd	Major Arterial	55
18	Valpico Road	East of Tracy Blvd	Major Arterial	55

### TABLE 6-4: OFF-SITE ROADWAY PARAMETERS

<sup>1</sup> Road Classifications based upon the General Plan Circulation Element.



			Av	erage Daily Traff	ic <sup>1</sup>
ID	Roadway	Segment	Existing	Existing Plus Project	Cumulative
1	Tracy Boulevard	South of Linne Rd	1,000	1,070	1,900
2	Tracy Boulevard	Btwn Linne Rd and Valpico Rd	8,730	10,200	12,000
3	Tracy Boulevard	North of Valpico Rd	13,600	14,420	24,500
4	Corral Hollow Road	Btwn I-580 EB Ramps and I-580-WB Ramps	5,430	8,960	6,350
5	Corral Hollow Road	Btwn I-580 WB Ramps and Spine Rd	6,330	11,450	7,050
6	Corral Hollow Road	Btwn Spine Rd and N. Tracy Hills Rd	6,330	16,330	7,050
7	Corral Hollow Road	Btwn N. Tracy Hills Rd and Linne Rd	6,330	16,330	7,050
8	Corral Hollow Road	Btwn Linne Rd and Valpico Rd	5,330	10,895	11,350
9	Corral Hollow Road	Btwn Valpico Rd and Schulte Rd	9,925	13,945	15,800
10	Corral Hollow Road	North of Schulte Rd	20,760	24,360	36,200
11	Lammers Road	Btwn Valpico Rd and Old Schulte Rd	5,600	5,720	28,200
12	Lammers Road	Btwn Old Schulte Rd and Eleventh St	5,600	5,670	30,250
13	Lammers Road	North of Eleventh St	3,990	4,010	16,900
14	Linne Road	Btwn Corral Hollow Rd and Tracy Blvd	3,915	7,935	16,450
15	Linne Road	East of Tracy Blvd	3,680	5,800	12,200
16	Valpico Road	Btwn Lammers Rd and Corral Hollow Rd	4,480	4,605	12,250
17	Valpico Road	Btwn Corral Hollow Rd and Tracy Blvd	8,475	8,850	18,050
18	Valpico Road	East of Tracy Blvd	12,320	12,700	19,900

<sup>1</sup> Tracy Hills Phase 1 Traffic Impact Analysis prepared by Kimley-Horn Associates, October 2013.

### TABLE 6-6: VEHICLE MIX

Vehicle Type	Daytime (7 am - 7 pm)	Evening (7 pm - 10 pm)	Nighttime (10 pm - 7 am)	Total % Traffic Flow
Automobiles	77.5%	12.9%	9.6%	97.42%
Medium Trucks	84.8%	4.9%	10.3%	1.84%
Heavy Trucks	86.5%	2.7%	10.8%	0.74%



# 7 ON-SITE TRAFFIC NOISE IMPACTS

An on-site exterior noise impact analysis has been completed to determine the traffic noise exposure and to identify potential necessary noise abatement measures for the proposed Tracy Hills Phase 1 project. It is expected that the primary source of noise impacts to the project site will be traffic noise from the I-580 Freeway. The project will also experience some background traffic noise impacts from South Corral Hollow Road and the internal project residential streets, however, due to the distance, topography and low traffic volume/speed, traffic noise from these roads will not make a significant contribution to the noise environment.

Based on the noise exposure potential for the Tracy Hills Phase 1, the project site plan was specifically designed to account for the noise impacts associated with the I-580 Freeway. To reduce the noise exposure to the noise sensitive residential areas, several design features were considered as part of the site planning process. These design features include, providing additional setbacks, changing the residential building orientations to limit private uses facing the I-580 Freeway, providing noise barriers where possible (berms and masonry walls), as well as plans to provided enhanced noise rated building assembly design and insulation features.

# 7.1 EXTERIOR NOISE LEVELS

Using the FHWA TNM traffic noise prediction model of the Tracy Hills Phase 1 project in combination with the parameters outlined in Table 6-3, the expected noise levels were calculated. To estimate the exterior noise environment, ten noise sensitive residential receiver locations (R-1 through R-10) and four community recreation receiver locations (C-1 through C-4) were identified throughout the project site. Table 7-1 presents a summary of the existing and future exterior noise level impacts at each receiver location. Exhibit ES-1 identifies the location of the receiver locations.

A review of the traffic noise levels shown on Table 7-1 suggests that the unmitigated exterior noise level impacts levels are expected to approach 64.6 dBA CNEL for existing conditions. For long-range traffic conditions on the I-580 Freeway, the unmitigated exterior noise levels are expected to approach 73.3 dBA CNEL. The TNM peak hour noise level results and noise level conversion (peak hour Leq to daily CNEL) worksheets are included in Appendix 7.1. Focused exterior noise contour boundaries showing plan view and cross-section view of the future noise levels at each of the ten noise sensitive residential receiver locations are provided in Appendix 7.2.

# 7.2 EXTERIOR NOISE ANALYSIS

To limit the exterior noise exposure for the noise sensitive receptors within the Tracy Hills Phase 1 residential project, the construction of an eight-foot high backyard noise barrier is planned. Lots facing the I-580 Freeway do not contain private use areas (backyards) requiring exterior noise abatement. Exhibit ES-1 illustrates the future exterior noise level impacts and the location of the planned eight foot high sounds for the Tracy Hills Phase 1 project. Table 7-1



presents the expected exterior noise levels with the planned wall designed to protect the single-family private use areas for lots with backyards facing the I-580 Freeway.

				Existing C	onditions	Future Co	onditions
ID	Village	Lot	Location	No Wall	8' Wall	No Wall	8' Wall
R-1	1	89	Backyard	63.9	62.7	72.2	70.1
R-2	1	146	Frontyard	63.7	63.7	72.3	72.4
R-3	4	118	Backyard	59.3	59.1	67.9	67.7
R-4	5	198	Backyard	62.3	57.1	71.0	65.7
R-5	5	188	Backyard	60.2	57.3	68.9	66.0
R-6	5	180	Backyard	64.0	64.0	72.7	73.2
R-7	7	16	Frontyard	62.3	62.3	70.9	71.1
R-8	8	130	Backyard	64.6	64.6	73.2	73.3
R-9	8	39	Frontyard	62.8	52.8	71.5	71.7
R-10	8	28	Backyard	62.7	55.1	71.4	63.9
C-1	4	P1	Community	49.6	50.1	58.3	58.9
C-2	7	Ρ4	Community	49.5	49.8	58.2	59.0
C-3	7	P2	Community	51.4	51.6	60.1	61.2
C-4	8	Р3	Community	53.7	53.7	62.3	63.8

### TABLE 7-1: EXTERIOR NOISE ANALYSIS

As shown on Table 7-1, the planned eight-foot high noise barrier does not substantially reduce the exterior noise levels from the I-580 Freeway. The project site is generally located 200 feet north from the I-580 Freeway northbound edge of pavement across the 100 conservation easement and at an elevation that places the noise sensitive receivers approximately 20 feet lower the road elevation. A noise barrier is most effective when placed close to the noise source or receptor. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source. However, due to the topography of the site, the planned noise barrier location is limited to the backyard property line, significantly reducing the effectiveness (noise attenuation) of the noise barrier. To support this conclusion, the noise attenuation and exterior noise levels for noise barrier heights of 6, 8, 10, 12, 14, and 16 feet were calculated. The noise barrier analysis included in Appendix 7.1 demonstrates that increases the noise barrier from the planned height of eight feet to a height of 16 feet will only provide an additional noise level attenuation of approximately 5 dBA CNEL.

In practice to maximize the noise attenuation provided by a noise barrier, the noise barrier should be located at the top of slope nearest the noise source or noise receiver. For the Tracy Hills Phase 1 project, this indicates that the appropriate noise barrier location is at the top of



slope at the Caltrans right of way. However, while this is the ideal barrier location from a noise perspective, it is important to recognize that Caltrans discourages noise sensitive residential land uses adjacent to the freeway. In an effort to eliminate or reduce undesirable effects of highway traffic noise, the FHWA encourages the location of less noise-sensitive land uses next to highways, and promotes the use of opens space or special building construction techniques to minimize noise impacts. In addition, Federal legislation bans the FHWA from participating in construction of most noise barriers related to development or construction next to existing highways. (19)

The long-range noise analysis shows that over time as project traffic increases the expected exterior noise levels will also substantially increase. When the traffic demand on the I-580 warrants the construction of additional lanes, this will trigger a Noise Study Report (NSR) and likely future abatement in the form of a Caltrans noise barrier at the right-of-way. The purpose of this NSR is to evaluate noise impacts and abatement under the requirements of Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772) "Procedures for Abatement of Highway Traffic Noise", (20) which provides procedures for preparing operational and construction noise studies and evaluating noise abatement measures considered for federal and federal-aid highway projects. Under 23 CFR 772.11, noise abatement must be considered for Type 1 projects if the project is predicted to result in a traffic noise impact. FHWA defines a Type 1 project as a proposed federal or federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes.

In effect, the future exterior noise analysis presents a future conditions based on a traffic volume of 70,000 vehicles per day that may never occur since Caltrans will likely provide noise abatement in the form of a noise barrier as part of any future widening of the I-580 Freeway.

# 7.3 NOISE BARRIER DESIGN

The designed noise screening may only be accomplished if the barriers weight is at least 4.0 pounds per square foot of face area and have no decorative cutouts or line-of-site openings between shielded areas and the roadways. The recommended noise control barrier may be constructed using one of the following alternative materials:

- Masonry block
- Stucco veneer over wood framing (or foam core), or 1 inch thick tongue and groove wood of sufficient weight per square foot
- Glass (1/4 inch thick), or other transparent material with sufficient weight per square foot
- Earthen berm
- Any combination of these construction materials

The recommended barrier must present a solid face from top to bottom. Unnecessary openings or decorative cutouts should not be made. All gaps (except for weep holes) should be filled with grout or caulking. In addition to the preliminary on-site exterior noise abatement measures, the following site design alternatives should be considered.



# 7.4 EXTERIOR NOISE THRESHOLDS OF SIGNIFICANCE

Based on the City of Tracy Land Use Compatibility for Community Noise Environments, singlefamily residential exterior noise levels of less than 60 dBA CNEL are considered "Normally Acceptable" with noise levels of less than 75 dBA CNEL considered as "Conditionally Acceptable". Noise levels that are considered "Conditionally Acceptable" require a detailed analysis of the noise reduction requirements and the needed insulation features. General Plan Noise Element Objective N-1.1 Policy P3 states that all new single family residential development shall maintain a noise standard of 60 CNEL for exterior noise in private use areas and Policy P6 states that all multi-family residential developments shall maintain a standard of 65 CNEL for community outdoor recreation areas.

The exterior noise analysis shows that while the Tracy Hills Phase 1 single-family residential development limits the number of backyard (private use areas) facing the I-580 Freeway, several lots will be exposed to traffic noise levels exceeding the City of Tracy 60 dBA CNEL exterior noise level standards.

Based on the City of Tracy General Plan Noise Element policies and the significance criteria presented in section 4, the development of the Tracy Hills Phase 1 single family residential development will exceed the *"normally acceptable"* exterior noise level of 60 dBA CNEL in private use areas and create a significant impact as direct result of the proposed development.

## 7.5 ON-SITE INTERIOR NOISE ANALYSIS

The interior noise level is the difference between the predicted exterior noise level at the building facade and the noise reduction of the structure. Typical building construction will provide an approximate 12 dBA noise reduction with "windows open" and a minimum 25 dBA noise reduction with "windows closed" requiring a means of mechanical ventilation (e.g. air conditioning). The noise reduction characteristics of a building are determined by combining the transmission loss of each of the building components that make up the building. Each unique component has a transmission loss value. For residential homes, the critical building components include the roof, walls, windows, doors, and attic configuration and insulation characteristics. The total noise reduction is dependent upon the transmission loss of each element and the surface area of that element in relation to the total surface area of the room.

Tables 7-2 shows that the future noise levels at the façade are estimated to range from 58.9 to 73.3 dBA CNEL. In order to meet the City of Tracy 45 dBA CNEL interior noise level standard, an interior noise level reduction ranging from 13.9 to 28.3 dBA CNEL is needed.



				Noise Level	For Windows	Required
ID	Village	Lot	Noise Level At Façade	Open <sup>2</sup>	Closed <sup>3</sup>	Interior Noise Reduction
R-1	1	89	70.1	58.1	45.1	25.1
R-2	1	146	72.4	60.4	47.4	27.4
R-3	4	118	67.7	55.7	42.7	22.7
R-4	5	198	65.7	53.7	40.7	20.7
R-5	5	188	66.0	54.0	41.0	21.0
R-6	5	180	73.2	61.2	48.2	28.2
R-7	7	16	71.1	59.1	46.1	26.1
R-8	8	130	73.3	61.3	48.3	28.3
R-9	8	39	71.7	59.7	46.7	26.7
R-10	8	28	63.9	51.9	38.9	18.9
C-1	4	P1	58.9	46.9	33.9	13.9
C-2	7	Ρ4	59.0	47.0	34.0	14.0
C-3	7	P2	61.2	49.2	36.2	16.2
C-4	8	Р3	63.8	51.8	38.8	18.8

TABLE 7-2: INTERIOR NOISE ANALYSIS (CNEL)

<sup>1</sup> Includes the noise attenuation provided by the planned eight foot high noise barrier.

<sup>2</sup> A minimum of 12 dBA noise reduction is assumed with windows open.

<sup>3</sup> A minimum of 25 dBA noise reduction is assumed with windows closed and a minimum STC rating of 27.

# 7.6 ON-SITE INTERIOR NOISE ABATEMENT

To provide the necessary interior noise level reduction, Table 7-2 shows that lots adjacent to the I-580 Freeway will require a windows closed condition. A windows closed condition requires a means of means of mechanical ventilation (e.g. air conditioning). In addition, lots facing I-580 Freeway will require upgraded windows with an estimated minimum STC rating of 33. In order to meet the City of Tracy 45 dBA CNEL interior noise standards the project shall provide the following noise abatement measures:

- <u>Exterior Walls</u>: Provide exterior walls with a minimum Sound Transmission Class (STC) rating of 46. Typical walls with this rating will have 2x4 studs or greater, 16" o.c. with R-13 insulation, a minimum 7/8" exterior surface of cement plaster and a minimum interior surface of 1/2" gypsum board.
- <u>Windows</u>: All windows and sliding glass doors shall be well fitted, well weather-stripped assemblies and shall have a minimum STC of 27. Windows facing the I-580 Freeway will require upgraded windows with a minimum STC of 33. Air gaps and rattling shall not be permitted. The total area of glass shall not exceed twenty percent of the floor area in any room.
- <u>Doors</u>: All exterior doors shall be well weather-stripped solid core assemblies at least one and three-fourths-inch thick.



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- <u>Roof:</u> Roof sheathing of wood construction shall be well fitted or caulked plywood of at least one-half inch thick. Ceilings shall be well fitted, well sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- <u>Ventilation</u>: Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use. A forced air circulation system (e.g. air conditioning) shall be provided which satisfy the requirements of the Uniform Mechanical Code.

With the preliminary interior noise abatement measures provided in this study, the Project is expected to meet the City of Tracy 45 dBA CNEL interior noise level standards for residential development. A final noise study shall be prepared prior to obtaining building permits for the project. This report would finalize the abatement measures described in this study using the precise grading plans and actual building design specifications, and may include additional abatement, if necessary, to meet the City of Tracy 45 dBA CNEL interior noise level standard.



# 8 OFF-SITE TRAFFIC NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the *Tracy Hills Phase 1 Traffic Impact Analysis* prepared by Kimley-Horn Associates, October 2013. (18). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Traffic noise contour boundaries are typically calculated at distances of 100 feet from a roadway centerline. Noise contours were developed for the following traffic scenarios:

- <u>Existing / Existing plus Project</u>: This scenario refers to the existing present-day noise conditions, without the Project and with the construction of the proposed Project.
- <u>Cumulative</u>: This scenario refers to the background future noise conditions with the proposed Project. This scenario corresponds to long-range traffic conditions, and includes all cumulative projects identified in the Traffic Impact Analysis.

## 8.1 TRAFFIC NOISE CONTOURS

To quantify the Project's traffic noise impacts on the surrounding areas, the changes in traffic noise levels on 18 roadway segments surrounding the Project were calculated based on the changes in the average daily traffic volumes. The noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The traffic noise contour worksheets are included in Appendix 8.1.

Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, 60 and 55 dBA noise levels. The distance from the centerline of the roadway to the CNEL contour boundaries for roadways in the proposed Project's vicinity are presented in Tables 8-1 through 8-4. The noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. In addition, since the noise contours reflect modeling of vehicular noise along area roadways, they appropriately do not reflect noise contribution from the surrounding commercial and industrial uses or railroad activities within the Project study area.



			CNEL at	Dis	tance to C	ontour (Fe	eet)
ID	Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Tracy Boulevard	South of Linne Rd	54.3	RW	RW	RW	90
2	Tracy Boulevard	Btwn Linne Rd and Valpico Rd	63.8	RW	83	178	383
3	Tracy Boulevard	North of Valpico Rd	65.7	RW	111	239	515
4	Corral Hollow Road	Btwn I-580 EB Ramps & I-580-WB Ramps	61.7	RW	RW	130	279
5	Corral Hollow Road	Btwn I-580 WB Ramps and Spine Rd	62.4	RW	67	144	309
6	Corral Hollow Road	Btwn Spine Rd and N. Tracy Hills Rd	62.4	RW	67	144	309
7	Corral Hollow Road	Btwn N. Tracy Hills Rd and Linne Rd	62.4	RW	67	144	309
8	Corral Hollow Road	Btwn Linne Rd and Valpico Rd	61.6	RW	RW	128	276
9	Corral Hollow Road	Btwn Valpico Rd and Schulte Rd	64.3	RW	90	194	417
10	Corral Hollow Road	North of Schulte Rd	67.5	68	147	317	683
11	Lammers Road	Btwn Valpico Rd and Old Schulte Rd	61.8	RW	RW	132	285
12	Lammers Road	Btwn Old Schulte Rd and Eleventh St	61.8	RW	RW	132	285
13	Lammers Road	North of Eleventh St	60.3	RW	RW	104	224
14	Linne Road	Btwn Corral Hollow Rd and Tracy Blvd	60.3	RW	RW	104	225
15	Linne Road	East of Tracy Blvd	60.0	RW	RW	100	215
16	Valpico Road	Btwn Lammers Rd and Corral Hollow Rd	60.9	RW	RW	114	246
17	Valpico Road	Btwn Corral Hollow Rd and Tracy Blvd	63.6	RW	81	174	376
18	Valpico Road	East of Tracy Blvd	65.2	RW	104	224	482

### TABLE 8-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS

<sup>1</sup> "RW" = Location of the respective noise contour falls within the right-of-way of the road.



			CNEL at	Dis	tance to C	ontour (Fe	eet)
ID	Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Tracy Boulevard	South of Linne Rd	54.6	RW	RW	RW	95
2	Tracy Boulevard	Btwn Linne Rd and Valpico Rd	64.4	RW	92	197	425
3	Tracy Boulevard	North of Valpico Rd	65.9	RW	115	249	536
4	Corral Hollow Road	Btwn I-580 EB Ramps & I-580-WB Ramps	63.9	RW	84	181	390
5	Corral Hollow Road	Btwn I-580 WB Ramps and Spine Rd	64.9	RW	99	213	459
6	Corral Hollow Road	Btwn Spine Rd and N. Tracy Hills Rd	66.5	RW	125	270	582
7	Corral Hollow Road	Btwn N. Tracy Hills Rd and Linne Rd	66.5	RW	125	270	582
8	Corral Hollow Road	Btwn Linne Rd and Valpico Rd	64.7	RW	96	206	444
9	Corral Hollow Road	Btwn Valpico Rd and Schulte Rd	65.8	RW	113	243	524
10	Corral Hollow Road	North of Schulte Rd	68.2	76	164	353	760
11	Lammers Road	Btwn Valpico Rd and Old Schulte Rd	61.9	RW	RW	134	289
12	Lammers Road	Btwn Old Schulte Rd and Eleventh St	61.9	RW	RW	133	287
13	Lammers Road	North of Eleventh St	60.3	RW	RW	105	225
14	Linne Road	Btwn Corral Hollow Rd and Tracy Blvd	63.3	RW	77	167	360
15	Linne Road	East of Tracy Blvd	62.0	RW	RW	135	292
16	Valpico Road	Btwn Lammers Rd and Corral Hollow Rd	61.0	RW	RW	116	250
17	Valpico Road	Btwn Corral Hollow Rd and Tracy Blvd	63.8	RW	83	180	387
18	Valpico Road	East of Tracy Blvd	65.4	RW	106	228	492

TABLE 8-2: EXISTING WITH PROJECT CONDITIONS NOISE CONTOURS

<sup>1</sup> "RW" = Location of the respective noise contour falls within the right-of-way of the road.



			CNEL at	Dis	tance to C	ontour (Fe	eet)
ID	Road	Segment	100 Feet (dBA)	70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
1	Tracy Boulevard	South of Linne Rd	57.1	RW	RW	64	139
2	Tracy Boulevard	Btwn Linne Rd and Valpico Rd	65.1	RW	102	220	474
3	Tracy Boulevard	North of Valpico Rd	68.2	76	164	354	762
4	Corral Hollow Road	Btwn I-580 EB Ramps & I-580-WB Ramps	62.4	RW	67	144	310
5	Corral Hollow Road	Btwn I-580 WB Ramps and Spine Rd	62.8	RW	72	154	332
6	Corral Hollow Road	Btwn Spine Rd and N. Tracy Hills Rd	62.8	RW	72	154	332
7	Corral Hollow Road	Btwn N. Tracy Hills Rd and Linne Rd	62.8	RW	72	154	332
8	Corral Hollow Road	Btwn Linne Rd and Valpico Rd	64.9	RW	98	212	457
9	Corral Hollow Road	Btwn Valpico Rd and Schulte Rd	66.3	RW	123	264	569
10	Corral Hollow Road	North of Schulte Rd	69.9	99	213	459	989
11	Lammers Road	Btwn Valpico Rd and Old Schulte Rd	68.8	84	180	389	837
12	Lammers Road	Btwn Old Schulte Rd and Eleventh St	69.1	88	189	407	878
13	Lammers Road	North of Eleventh St	66.5	RW	127	273	587
14	Linne Road	Btwn Corral Hollow Rd and Tracy Blvd	66.5	RW	126	271	585
15	Linne Road	East of Tracy Blvd	65.2	RW	103	222	479
16	Valpico Road	Btwn Lammers Rd and Corral Hollow Rd	65.2	RW	103	223	480
17	Valpico Road	Btwn Corral Hollow Rd and Tracy Blvd	66.9	RW	134	289	622
18	Valpico Road	East of Tracy Blvd	67.3	66	143	308	664

<b>TABLE 8-3:</b>	CUMULATIVE CONDITIONS NOISE CONTOURS

<sup>1</sup> "RW" = Location of the respective noise contour falls within the right-of-way of the road.

# 8.2 PROJECT OFF-SITE TRAFFIC NOISE LEVEL IMPACTS

Table 8-4 presents a comparison of the existing without and with Project conditions CNEL noise levels. Table 8-1 shows that the unmitigated exterior noise levels are expected to range from 54.3 to 67.5 dBA CNEL at 100 feet from each roadway's centerline. Table 8-2 presents the existing with Project conditions unmitigated noise contours that are expected to range from 54.6 to 68.2 dBA CNEL at 100 feet from the roadway centerline. As shown on Table 8-4 the Project is expected to generate an unmitigated exterior noise level increase of up to 4.1 dBA CNEL. Based on the noise impact significance criteria described in Section 4.2, this off-site traffic noise level increase is considered a significant impact for existing with project conditions.

			CNEI	at 100 Feet (	dBA)	Potential
ID	Road	Segment	Existing	Existing With Project	Project Addition	Significant Impact?
1	Tracy Boulevard	South of Linne Rd	54.3	54.6	0.3	No
2	Tracy Boulevard	Btwn Linne Rd and Valpico Rd	63.8	64.4	0.7	No
3	Tracy Boulevard	North of Valpico Rd	65.7	65.9	0.3	No
4	Corral Hollow Road	Btwn I-580 EB Ramps and I-580-WB Ramps	61.7	63.9	2.2	No
5	Corral Hollow Road	Btwn I-580 WB Ramps and Spine Rd	62.4	64.9	2.6	No
6	Corral Hollow Road	Btwn Spine Rd and N. Tracy Hills Rd	62.4	66.5	4.1	Yes
7	Corral Hollow Road	Btwn N. Tracy Hills Rd and Linne Rd	62.4	66.5	4.1	Yes
8	Corral Hollow Road	Btwn Linne Rd and Valpico Rd	61.6	64.7	3.1	Yes
9	Corral Hollow Road	Btwn Valpico Rd and Schulte Rd	64.3	65.8	1.5	No
10	Corral Hollow Road	North of Schulte Rd	67.5	68.2	0.7	No
11	Lammers Road	Btwn Valpico Rd and Old Schulte Rd	61.8	61.9	0.1	No
12	Lammers Road	Btwn Old Schulte Rd and Eleventh St	61.8	61.9	0.1	No
13	Lammers Road	North of Eleventh St	60.3	60.3	0.0	No
14	Linne Road	Btwn Corral Hollow Rd and Tracy Blvd	60.3	63.3	3.1	Yes
15	Linne Road	East of Tracy Blvd	60.0	62.0	2.0	No
16	Valpico Road	Btwn Lammers Rd and Corral Hollow Rd	60.9	61.0	0.1	No
17	Valpico Road	Btwn Corral Hollow Rd and Tracy Blvd	63.6	63.8	0.2	No
18	Valpico Road	East of Tracy Blvd	65.2	65.4	0.1	No

### TABLE 8-4: EXISTING OFF-SITE PROJECT RELATED TRAFFIC NOISE IMPACTS



# 9 **REFERENCES**

- 1. California Department of Transportation Environmental Program. *Technical Noise Supplement A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., October 1998.
- 2. Environmental Protection Agency Office of Noise Abatement and Control. Information on Levels of Environmental Noise Requiste to Protect Public Health and Welfare with an Adequate Margin of Safety. March, 1974. EPA/ONAC 550/9/74-004.
- 3. U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch. *Highway Traffic Noise Analysis and Abatement Policy and Guidance*. June, 1995.
- 4. U.S. Department of Transportation, Federal Highway Administration. *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
- 5. U.S. Environmental Protection Agency Office of Noise Abatement and Control. *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
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- 18. Kimley-Horn Associates. Tracy Hills Phase 1 Traffic Impact Analysis. October 2013.
- 19. U.S. Department of Transportation Federal Highway Administration. *Entering the Quiet Zone Noise Compatibile Land Use Planning.* May 2002.
- 20. U.S. Department of Transportation, Federal Highway Administration. 23 CFR 772: Procedures for Abatmentof Highway Noise and Construction Noise. Final Rule July 13, 2010.

# **10 CERTIFICATION**

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Tracy Hills Phase 1 Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 203.

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# **EDUCATION**

Master of Science in Civil and Environmental Engineering California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning California Polytechnic State University, San Luis Obispo • June, 1992

# **PROFESSIONAL REGISTRATIONS**

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009 AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012 PTP – Professional Transportation Planner • May, 2007 – May, 2013 INCE – Institute of Noise Control Engineering • March, 2004

### **PROFESSIONAL AFFILIATIONS**

ASA – Acoustical Society of America ITE – Institute of Transportation Engineers

### **PROFESSIONAL CERTIFICATIONS**

Certified Acoustical Consultant – County of Orange • February, 2011 FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013



APPENDIX 3.1:

# **CITY OF TRACY GENERAL PLAN NOISE ELEMENT**



### **9** Noise Element

The purpose of the Noise Element is to identify and appraise noise generation in the community in order to minimize problems from intrusive sound and to ensure that development does not expose people to unacceptable noise levels.

### A. Background

This section provides background information about how noise is measured, the regulatory framework governing noise and existing noise sources in Tracy.

### 1. Understanding Noise

Noise can be defined as a sound or series of sounds that are intrusive, irritating, objectionable and/or disruptive to daily life. Noise varies widely in its scope, source, and volume, ranging from individual occurrences, such as a lawn mower, to the intermittent disturbances of train whistles, to the fairly constant noise generated by traffic on freeways. Noise is primarily a concern when generated in the vicinity of noise-sensitive uses such as residences, schools, places of worship and hospitals.

The objectionable nature of sound could be caused by its *pitch* or its loudness. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. These are listed in Table 9-1. The most basic unit of measurement is the decibel (dB), which is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a 10-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Generally, the human ear cannot perceive a difference between two noises that are less than three decibels different from one another.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level or dBA*. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 9-2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energyequivalent sound/noise descriptor is called Leq. The most common averaging period is hourly, but Leq can describe any series of noise events of arbitrary duration.

### CITY OF TRACY GENERAL PLAN NOISE ELEMENT

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	Sound pressure level in decibels as measured on a sound level me- ter using the A-weighting filter network, which de-emphasizes very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L01, L10, L50, L90	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (respectively) of the time during the measurement period.
Equivalent Noise Level, L <sup>eq</sup>	The average A-weighted noise level during the measurement period.
Community Noise Equiva- lent Level, CNEL	The Average A-weighted noise level during a 24-hour day, ob- tained after adding 5 decibels to measurements taken in the eve- ning (7 to 10 pm) and 10 decibels to measurements taken between 10 pm and 7 am.
Day/Night Noise Level, Ldn	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night be- tween 10:00 pm and 7:00 am.
Lmax, Lmin	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound de- pends upon its amplitude, duration, frequency, and time of occur- rence and tonal or informational content as well as the prevailing ambient noise level.

### TABLE 9-1DEFINITIONS OF ACOUSTICAL TERMS

Table 9-2	<b>TYPICAL SOUND LEVELS MEASURED IN THE</b>
	Environment

Noise Generators (At a Given Distance from Noise Source)	A-Weighted Sound Level in Decibel	Noise Environments	Subjective Impression
	140		
Civil defense siren (100 feet)	130		
Jet take-off (200 feet)	120		Pain threshold
	110	Rock music concert	
Diesel pile drive (100 feet)	100		Very loud
Freight cars (50 feet)	90	Boiler room Printing press plant	
Pneumatic drill (50 feet) Freeway (100 feet)	80	In kitchen with garbage disposal	Moderately lou
Vacuum cleaner (10 feet)	70	running	Woderatery fou
	60	Data processing center	
Light traffic (100 feet) Large transformer (200 feet)	50	Department store	
. ,	40	Private business office	Quiet
Soft whisper (5 feet)	30	Quiet bedroom	
	20	Recording studio	
	10		Threshold of hearing

Since the sensitivity to noise increases during the evening and at night—because excessive noise interferes with the ability to sleep—24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level, CNEL*, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 p.m. to 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. to 7:00 a.m.) noise levels. The *Day/Night Average Sound Level, Ldn*, is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

### 2. Regulatory Framework

State law requires a Noise Element as part of all city and county General Plans. The Noise Element should provide a systematic approach to the measurement and modeling of noise, the establishment of noise standards, the control of major noise sources, and community planning for the regulation of noise. This Noise Element provides baseline information on the existing noise environment, including noise measurements taken throughout the city. It also identifies noise sensitive uses in Tracy. This Noise Element also provides goals, objectives, policies and actions for controlling noise in existing and future development.

The Noise Element establishes uniformity between City policy and programs undertaken to control and abate environmental noise. The Government Code and State Office of Noise Control (ONC) Guidelines require that certain major noise sources and areas containing noise sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected levels of activity within the community. Contours may be prepared in terms of either the Community Noise Equivalent (CNEL) or the Day/Night Average Level  $(L_{dn})$  which are both descriptors of total noise exposure at a given location for an annual average day. The noise exposure information developed for the Noise Element is incorporated into this General Plan to serve as a basis for achieving land use compatibility with respect to noise. Noise exposure information is used to provide baseline levels and noise source identification for use in the development and enforcement of a local noise control ordinance and for ensuring compliance with the State's noise insulation standards.

According to the Government Code and ONC Guidelines, the following major noise sources should be considered in the preparation of a Noise Element:

- Highways and freeways
- Primary arterials and major local streets
- Railroad operations
- Aircraft and airport operations
- Local industrial facilities
- Other stationary sources

### 3. Land Use Compatibility

Land uses deemed noise sensitive by the State of California include schools, hospitals, rest homes, long-term care and mental care facilities. Many jurisdictions consider residential uses particularly noise sensitive because families and individuals expect to use time in the home for rest and relaxation, and noise can interfere with those activities. Some variability in standards for noise sensitivity may apply to different densities of residential development, and single-family uses are frequently considered the most sensitive. Jurisdictions may identify other uses as noise sensitive such as churches, libraries, day care centers, and parks. Land uses that are relatively insensitive to noise include some office and retail developments. There is a range of insensitive noise receptors which generate significant noise levels or where human occupancy is typically low. Examples of insensitive uses include industrial and manufacturing uses, utilities, agriculture, vacant land, parking lots, salvage yards, and transit terminals.

The ONC has developed a noise/land use compatibility matrix showing noise standards for various land use categories. The noise standards are intended to provide guidelines for the development of municipal noise elements. Depending on the environment of a particular community, these basic guidelines may be tailored to reflect the existing noise and land use characteristics of a particular community.

California's noise insulation standards were officially adopted by the California Commission of Housing and Community Development in 1974 and became effective on August 22, 1974. On November 14, 1988, the Building Standards Commission approved revisions to these standards (Title 24, Part 2, California Code of Regulations). The ruling states: "Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be measured in either CNEL or Ldn, consistent with the noise element of the local general plan." Additionally, the commission specifies that residential buildings or structures to be located within exterior Ldn (or dBA) contours of 60 dB or greater of an existing or adopted freeway, expressway, parkway, major street, thoroughfare, rail line, rapid transit line or industrial noise source shall require an acoustical analysis showing that the building has been designed to limit intruding noise to an interior Ldn of 45 dB. CITY OF TRACY GENERAL PLAN NOISE ELEMENT

### 4. Existing Noise Sources

The most significant sources of noise in Tracy are vehicular traffic on Interstate 205 and the local street network. Railroad trains intermittently generate noise levels that are significant along the railroad tracks. General aviation aircraft using the Tracy Municipal Airport also contribute to intermittent noise levels in Tracy. Noise is also generated on individual parcels whether industrial, office, retail or residential. These noise sources are regulated by the City's Noise Ordinance and do not affect the overall noise environment throughout the community.

- Daily Noise Measurements. Noise levels were monitored at 10 locations in Tracy over a period of three days in June of 2003. Noise levels were monitored by Illingworth & Rodkin, Inc. at two locations along Interstate 205 previously during preparation of the Noise Study Report for Improvements to the I-205 freeway. The measured data are summarized in Table 9-3.
- Short-Term Spot Measurements. Short-term spot measurements were made at 10 locations throughout Tracy in June of 2003 to characterize typical daytime noise levels and to collect traffic and noise data to be used subsequently in the computation of traffic noise contours for the General Plan. The data in Table 9-3 also shows the estimated Ldn for the short-term spot measurements based on correlations with long-term measurements nearby. The average noise levels (Leq) range from about 51 dBA in a quiet rear yard up to 63 dBA along MacArthur Drive.
- Roadways. Vehicular traffic on the street network was the dominant noise source during measurements. There were contributions from local neighborhood noise, a tractor at a rural location (ST-3), and a train was heard at Location ST-4 along MacArthur Drive near Eleventh Street which generated a maximum level of 68 dBA.

CITY OF TRACY GENERAL PLAN NOISE ELEMENT

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Site	Location	Date	Time	$L_{eq}$	L(1)	L(10)	L(50)	L(90)	$\mathrm{L}_{\mathrm{dn}}$
Long-	Long-Term Measurements								
LT-1	Residential Land Uses at South End of English Oak Court Adjacent to Altamont Commuter Express Line and West Linne Rd.	6/2/03 to 6/4/03	17:00 to 10:00	1	1	1	1	:	65
LT-2	<ul> <li>35 feet from the Altamont Commuter Express Line near Chris- man Road</li> </ul>	6/2/03 to 6/4/03	17:00 to 10:00	ı	ı	1	:	:	73
LT-3	$\sim 120$ feet from the Centerline of Chrisman Rd.	6/2/03 to 6/4/03	18:00 to 11:00	ı	ı	ı	:	ı	70
LT-4	$\sim$ 80 feet from the Centerline of North MacArthur Rd.	6/4/03 to 6/6/03	12:00 to 13:00	ı	ı	ı	ł	ı	66
LT-5	$\sim$ 90 feet from the Centerline of Eleventh St. at Wall Rd.	6/4/03 to 6/6/03	13:00 to 13:00	I	I	I	I	I	71
LT-6	6th St. Railroad Junction	6/4/03 to 6/6/03	13:00 to 14:00	I	I	I	I	I	72
LT-7	$\sim$ 50 feet from the Centerline of Grant Line Rd.	6/4/03 to 6/6/03	16:00 to 16:00	I	ı	ı	I	ı	75
LT-8	$\sim$ 80 feet from the Centerline of Tracy Blvd at Dr. Powers Park	6/6/03 to 6/9/03	15:00 to 14:00	I	I	I	I	I	70
LT-9	$\sim $ 190 feet from the Centerline of Corral Hollow Rd.	6/6/03 to 6/9/03	16:00 to 13:00	I	I	I	I	I	69
LT-10	West Larch Rd. east of Naglee Rd.	6/6/03 to 6/9/03	16:00 to 13:00	I	I	I	ł	I	69
LT-11	11240 Clover Rd. adjacent to I-205	10/31/00 to 11/1/00	10:00 to 10:00	ı	ı	ı	:	ı	82
LT-12	Rear Yard of 245 Hawthorne Dr. adjacent to I-205 (shielded by sound wall)	1/29/01 to 1/30/01	14:00 to 14:00	I	I	I	1	:	72

CITY OF TRACY General Plan Noise element

# TABLE 9-3 SUMMARY OF NOISE MONITORING (CONTINUED)

I ABLE 7-3	2-3 SUMMART OF INDISE MONITORING (CONTINUED)								
Site	Location	Date	Time	$\mathbf{L}_{\mathrm{eq}}$	L(1)	L(10)	L(50)	L(90)	${ m L}_{ m dn}$
Short-'	Short-Term Measurements								
ST-1	$\sim$ 70 feet from the Centerline of Whispering Wind Rd at Adams Park	6/3/03	15:14 to 15:24	58	68	62	53	47	60
ST-2	$\sim $ 130 feet from the Centerline of MacArthur Rd.	6/3/03	15:40 to 15:50	59	70	63	55	50	63
ST-3	$\sim$ 50 feet from the Centerline of East Schulte Rd.	6/3/03	16:08 to 16:18	62	73	99	54	48	65
ST-4	<ul> <li>100 feet from the Centerline of MacArthur Rd. near</li> <li>11th St.</li> </ul>	6/4/03	13:26 to 13:36	63	72	67	09	55	67
ST-5	$\sim$ 80 feet from the Centerline of Holly Dr.	6/4/03	13:50 to 14:00	59	68	63	56	49	63
ST-6	$\sim $ 115 feet from the Centerline of South Central Ave.	6/4/03	14:16 to 14:26	57	63	60	56	51	60
ST-7	$\sim $ 160 feet from the Centerline of Mac Arthur Rd.	6/4/03	14:40 to 14:50	58	99	61	56	49	61
ST-8	Rear Yard of 460 West Schulte Rd.	6/4/03	15:03 to 15:13	51	57	53	51	49	54
SТ-9	$\sim 100$ feet from the Centerline of Lincoln Blvd.	6/6/03	16:37 to 16:47	60	70	64	58	52	62
ST-10	$\sim$ 70 feet from the Centerline of West Lowell Ave.	6/6/03	16:53 to 17:03	59	67	62	57	52	60

General aviation aircraft at Location ST-5 generated a maximum level of 55 dBA but automobiles and motorcycles were typically 10 dBA louder. At the Schulte Road location (ST-8) distant traffic, a distant aircraft, wind in the vegetation, and crows were all audible contributing to a quiet rural noise environment in the backyard of this home. Noise contours for roadways are presented in Table 9-4.

### a. Tracy Municipal Airport

The Tracy Municipal Airport is located in the southern portion of the City between Tracy Boulevard and Corral Hollow Road, and is a source of noise in its vicinity. According to the 2009 Airport Land Use Compatibility Plan, there are currently approximately 60,000 annual airport operations. These are comprised mostly of single-engine light aircraft (maximum gross weight 12,000 lbs.), some twin-engine aircraft, and occasional corporate jets. There are no jets currently based at the Airport. Other activities at the Airport include two hot air balloon companies, Ultralights, and an area where aerobatic flight is allowed. The 2009 Airport Land Use Compatibility Plan contains existing and future CNEL noise contours for Tracy Municipal Airport as shown in Figures 9-1 and 9-2 on pages 9-15 and 9-16.

### b. Railroads

Altamont Commuter Express (ACE) provides passenger rail service between Stockton and San Jose. The ACE Station for Tracy is located on Tracy Boulevard at Linne Road. There are currently three ACE trains per day which arrive in Tracy between 4:00 a.m. and 7:00 a.m. and return between 5:00 p.m. and 7:00 p.m.

		Peak	Dist				
Roadway	Location	Hour Volume	Distance to CL	L <sub>dn</sub>	70-L <sub>dn</sub>	65-L <sub>dn</sub>	60-L <sub>dn</sub>
Interstate 205	West of Eleventh Street	8,250	150	83	1,110	2,380	5,120
Interstate 205	Between Eleventh Street and Corral Hollow	6,825	150	82	950	2,040	4,390
Interstate 205	Between Corral Hollow and MacArthur Drive	6,900	150	82	950	2,040	4,390
Interstate 205	East of MacArthur Drive	6,900	150	82	950	2,040	4390
Interstate 580	North of Corral Hollow	3,075	150	77	440	950	2,040
Interstate 580	South of Corral Hollow	2,850	150	78	510	1,100	2,380
Interstate 5	North of Eleventh Street	3,225	150	80	700	1,500	3,230
Interstate 5	South of Eleventh Street	1,650	150	77	440	950	2,040
Grant Line Road	West of Corral Hollow	2,545	75	77	220	470	1,020
Grant Line Road	East of Corral Hollow	1,668	75	75	160	350	750
Grant Line Road	East of Tracy Boulevard	1,133	75	73	120	260	550
Grant Line Road	East of Chrisman Road	764	75	71	90	190	410
Eleventh Street	East of Lammers Road	2,443	75	73	120	260	550
Eleventh Street	East of Corral Hollow	2,183	75	72	100	220	470
Eleventh Street	East of MacArthur Drive	1,851	75	73	120	260	550
Eleventh Street	East of Banta Drive	2,433	75	74	140	300	640
Schulte Road	West of Corral Hollow	110	75	58			60
Schulte Road	East of Corral Hollow	1,061	75	67	50	100	220
Schulte Road	East of Tracy Boulevard	1,116	75	68	60	120	260
Schulte Road	East of MacArthur Drive	470	75	63		60	120
Valpico Road	West of Corral Hollow	329	75	59			60
Valpico Road	East of Tracy Boulevard	677	75	67	50	100	220
Valpico Road	East of MacArthur Drive	437	75	60			80
Linne Road	West of Corral Hollow	296	75	62		50	100
Linne Road	East of Tracy Boulevard	425	75	64		60	140
Lammers Road	South of Grant Line Road	278	75	61			90

### TABLE 9-4**TRAFFIC NOISE CONTOUR DISTANCES**

De a dessar	Leader	Peak Hour	Distance	т	70 1		(0.1
Roadway		Volume	to CL	L <sub>dn</sub>	70-L <sub>dn</sub>	65-L <sub>dn</sub>	60-L <sub>dn</sub>
Lammers Road	South of Eleventh Street	366	75	62		50	100
Lammers Road	North of Valpico Road	1,152	75	67	50	100	220
Corral Hollow Road	South of Grant Line Road	2,184	75	74	140	300	640
Corral Hollow Road	South of Eleventh Street	2,018	75	73	120	260	550
Corral Hollow Road	South of Schulte Road	1,236	75	69	60	140	300
Corral Hollow Road	North of Valpico Road	533	75	65		80	160
Tracy Boulevard	North of Grant Line Road	1,408	75	69	60	140	300
Tracy Boulevard	South of Grant Line Road	1,779	75	70	80	160	350
Tracy Boulevard	North of Eleventh Street	1,795	75	70	80	160	350
Tracy Boulevard	South of Eleventh Street	1,939	75	71	90	190	410
Tracy Boulevard	North of Schulte Road	1,416	75	69	60	140	300
Tracy Boulevard	South of Schulte Road	934	75	68	60	120	260
Tracy Boulevard	South of Valpico Road	426	75	66		90	190
MacArthur Drive	South of I-205	988	75	69	60	140	300
MacArthur Drive	South of Grant Line Road	373	75	66		90	190
MacArthur Drive	South of Eleventh Street	551	75	65		80	160
MacArthur Drive	North of Valpico Road	554	75	65		80	160
MacArthur Drive	South of Valpico Road	232	75	66	40	90	190
Chrisman Road	South of Eleventh Street		75	72	100	220	470
Chrisman Road	South of Schulte Road	602	75	70	80	160	350
Byron Road	South of I-205	702	75	69	60	140	300

### TABLE 9-4 TRAFFIC NOISE CONTOUR DISTANCES (CONTINUED)

CITY OF TRACY GENERAL PLAN NOISE ELEMENT

There are three major rail lines that enter the City of Tracy from the east, two of which merge and subsequently exit to the west. The rail lines are owned by Union Pacific Railroad (UPRR). The main line runs through south Tracy along Linne Road. This line is used both as an industrial (10 freights per day) and commuter (via ACE train service) rail. Train noise contour distances are shown in Table 9-5.

### c. Truck Routes

The City of Tracy has a specific city ordinance relating to truck routes (Section 3.08.310 of the Tracy Municipal Code). The ordinance defines weight restrictions, specifies the ability of trucks to enter areas not designated as truck routes, and defines the truck routes within the city. The designated truck routes in the city are discussed in the Circulation Element of this General Plan.

### B. Goals, Objectives, Policies and Actions

### Goal N-1 A citizenry protected from excessive noise.

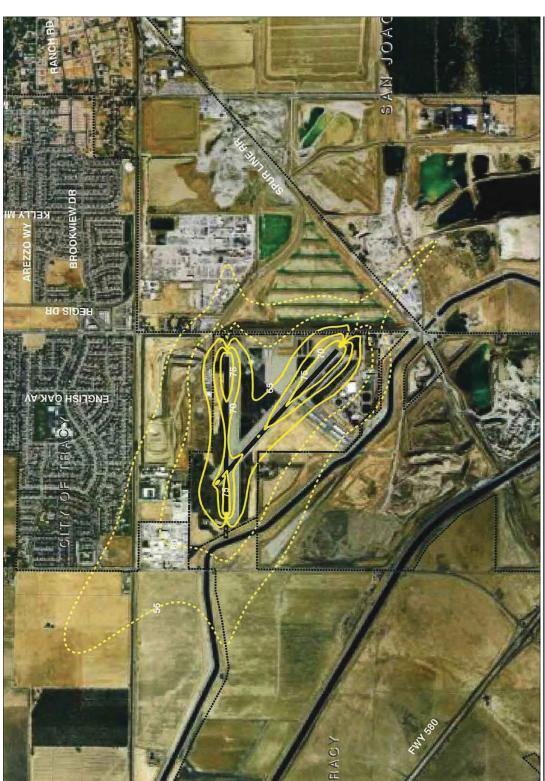
Objective N-1.1 Ensure appropriate exterior and interior noise levels for new land uses.

### Policies

P1. Noise sensitive land uses shall not be located in areas with noise levels that exceed those considered normally acceptable for each land use unless measures can be implemented to reduce noise to acceptable levels. FIGURE 9-1

EXISTING TRACY MUNICIPAL AIRPORT NOISE CONTOURS





e: Aerial Photography dated 2006. San Joaquin Geographic Information Systems, February 2008. Coffinan Associates analysis.

CITY OF TRACY General plan Noise element FIGURE 9-2

FUTURE TRACY MUNICIPAL AIRPORT NOISE CONTOURS





ze: Aerial Photography dated 2006. San Joaquin Geographic Information Systems, February 2008. Coffman Associates analysis.

CITY OF TRACY General plan Noise element

-	Distance to Noise Contour (Feet)		
	70 L <sub>dn</sub>	65 L <sub>dn</sub>	60 L <sub>dn</sub>
UPRR Railroad			260
~10 Freight +ACE Trains/day	60	120	260
UPRR Railroad Local Freight	60	120	260
to Stockton	00	120	260
UPRR Railroad	60	120	260
Leased to California Northern Railroad	60	120	200
UPRR Railroad Byron Road			
UPRR Railroad Schulte Road			
Industrial Spur Lines			

#### TABLE 9-5 TRAIN NOISE CONTOUR DISTANCES

- P2. Land uses shall require appropriate interior noise environments when located in areas adjacent to major noise generators.
- P3. Recognizing that some new single-family residential uses may be located adjacent to non-residential uses, new single-family residential development shall not exceed 60 Ldn (day/night average noise level) for exterior noise in private use areas.
- P4. New residential uses exposed to noise levels exceeding 60 Ldn shall be analyzed following protocols in the operative California Building Code or other operative code.

- P5. For new residential land uses, noise from external sources shall not cause building interiors to exceed 45 Ldn.
- P6. For new multi-family residential land uses, noise from external sources shall not cause the community outdoor recreation areas to exceed 65 Ldn. This policy shall not apply to balconies.
- P7. New residential development affected by noise from railroads or aircraft operations shall be designed to limit typical maximum instantaneous noise levels to 50 dBA in bedrooms and 55 dBA in other rooms.
- P8. Measures to attenuate exterior and/or interior noise levels to acceptable levels shall be incorporated into all development projects. Acceptable, conditionally acceptable and unacceptable noise levels are presented in Figure 9-3.
- P9. If the primary noise sources are train pass-bys then the standard for outdoor noise levels in single- and multi-family residential outdoor activity areas shall be 70 Ldn.

#### Objective N-1.2 Control sources of excessive noise.

#### Policies

P1. The City's Noise Ordinance, as revised from time to time, shall prohibit the generation of excessive noise.

	Exterior Noise Exposure (Ldn)					
Land Use Category	55	60	65	70	75	80
Single-Family Residential						
Multi-Family Residential, Hotels, and Motels			(a)			
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						

(a) Residential development sites exposed to noise levels exceeding 60 Ldn shall be analyzed following protocols in Appendix Chapter 12, Section 1208A, Sound Transmission Control, California Building Code.



#### Normally Acceptable

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.



#### **Conditionally Acceptable**

Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.



#### Unacceptable

New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

#### FIGURE 9-3

# LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENT

#### CITY OF TRACY

GENERAL PLAN Noise element

- P2. Mitigation measures shall be required for new development projects that exceed the following criteria:
  - Cause the Ldn at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level.
  - Cause the Ldn at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable."
  - Cause new noise levels to exceed the City of Tracy Noise Ordinance limits.
- P3. Pavement surfaces that reduce noise from roadways should be considered as paving or repavement opportunities arise.
- P4. All construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 a.m. to 7:00 p.m. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts:
  - Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
  - Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
  - Utilize "quiet" air compressors and other stationary noise sources where technology exists.

# Actions

- A1. Enforce Section 27007 of the California Motor Vehicle Code that prohibits amplified sound that can be heard 50 or more feet from a vehicle.
- A2. Enforce Section 27150 of the California Motor Vehicle Code that addresses excessive exhaust noise.
- A3. Develop noise abatement flight procedures for large aircraft accessing Tracy Municipal Airport.

Objective N-1.3 Consider noise issues in the Development Review process.

#### Policies

- P1. Development projects shall be evaluated for potential noise impacts and conflicts as part of the Development Review process.
- P2. Significant noise impacts shall be mitigated as a condition of project approval.
- P3. New development projects shall have an acoustical specialist prepare a noise analysis with recommendations for design mitigation if a noise-producing project is proposed near existing or planned noise-sensitive uses.
- P4. Proposed noise sensitive projects within noise-impacted areas shall submit acoustical studies and provide necessary mitigation from noise.

- P5. Site design techniques shall be considered as the primary means to minimize noise impacts as long as they do not conflict with the goals of the Community Character Element. Techniques include:
  - Designing landscaped building setbacks to serve as a buffer between the noise source and receptor.
  - Placing noise-tolerant land uses, such as parking lots, maintenance facilities, and utility areas between the noise source, such as highways and railroad tracks, and receptor.
  - Orienting buildings to shield noise sensitive outdoor spaces from a noise source.
  - Locating bedrooms or balconies on the sides of buildings facing away from noise sources.
  - Utilizing noise barriers (e.g., fences, walls, or landscaped berms) to reduce adverse noise levels in noisesensitive outdoor activity areas.
- P6. The City shall seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100 feet from the centerline of the railroad tracks whenever feasible. The development of vibration-sensitive buildings within 100 feet from the centerline of the railroad tracks would require a study demonstrating that ground borne vibration issues associated with rail operations have been adequately addressed (i.e., through building siting or construction techniques).

APPENDIX 3.2:

**CITY OF TRACY NOISE CONTROL ORDINANCE** 



# Tracy, California, Code of Ordinances >> Title 4 - PUBLIC WELFARE, MORALS AND CONDUCT >> Chapter 4.12 - MISCELLANEOUS REGULATIONS >> Article 9. Noise Control >>

#### Article 9. Noise Control

<u>4.12.710 Name.</u>
4.12.720 Declaration of policy.
4.12.730 Definitions.
4.12.740 Sound level measurement.
4.12.750 General sound level limits.
4.12.760 Limits for Planned Unit Developments.
4.12.770 Limits for joint boundaries.
4.12.780 Noncompliance with sound level limits—Extensions—Variations.
4.12.790 Required findings for the granting of a variation.
4.12.800 Exception and alternative sound level limits for certain properties.
4.12.810 General prohibition.
4.12.820 Specific noises prohibited.
4.12.830 Exemptions.
4.12.840 Minor maintenance to or improvement of real property.
4.12.850 Preempted activities.
4.12.860 Violations—Infractions and misdemeanors.
4.12.870 Violations—Public nuisance.
4.12.880 Declaration of nuisances.
4.12.890 Form of notice of hearing.
4.12.900 Posting and serving notice.
4.12.910 Form of proper service of notice.
4.12.920 Hearing by City Council.
4.12.930 Decision of City Council.
4.12.940 Limitation of filing judicial action.
4.12.950 Service of resolution to abate.
4.12.960 Record of cost for abatement.
4.12.970 Report—Hearing and proceedings.
4.12.980 Assessment of costs against property—Lien.
4.12.990 Violations.
4.12.1000 Severability.

# 4.12.710 Name.

This chapter shall be known as the "noise control ordinance."

(Prior code § 4-3.1000)

# 4.12.720 Declaration of policy.

It is hereby declared to be the policy of the City to prohibit unnecessary, excessive, and annoying noises from all sources subject to its police power. At certain levels, noise is detrimental to the health and welfare of the citizenry and, therefore, it is in the public interest to systematically proscribe harmful noises. (Prior code § 4-3.1001)

# 4.12.730 Definitions.

For the purposes of this article, the words set out in this section shall have the following meanings:

"Average sound level" shall mean the sound level typical of the sound levels at a certain place during a given period of time, averaged by the general rule of combination for sound levels, said general rule being set forth in the latest revision of the American National Standard Specifications for sound level meters. Average sound level is also called equivalent continuous sound level (Leq).

"Base district" shall mean those land use regulations as similarly referenced in the Tracy zoning regulations.

"Decibel" shall mean a unit for measuring the amplitude of sound, equal to twenty (20) times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is twenty (20) micropascals.

"Emergency work" shall mean work made necessary to restore property to a safe condition following a public calamity or work required to protect persons or property from imminent exposure to danger or damage or work by public or private utilities when restoring utility service. Also included, is any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.

"Noise" shall mean the composite noise from all sources near and far. In this context, the noise level constitutes a normal or existing level of environmental noise at a given location and time.

"Noise disturbance" shall mean any sound which, as judged by the Community Development Director, (1) endangers or injures the safety or health of human beings or animals, or (2) annoys or disturbs reasonable persons of normal sensitivities, or (3) endangers or injures personal or real property, or (4) violates the general sound limits set forth in <u>Section 4.12.750</u> of this article. Compliance with the quantitative standards as listed therein shall constitute elimination of a noise disturbance.

Nuisance. A "public nuisance" is one which affects at the same time a community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

"Person" means any individual, association, partnership, or corporation, and includes any officer, employee, department, agency or instrumentality of the State or any political subdivision of the State.

"Sound level" shall mean the weighted sound pressure level obtained by the use of a sound level meter and frequency weighing network as specified in American National Standards Institute specifications for sound level meters (ANSISI.4-1971, or the latest revision thereof). If the frequency weighing employed is not indicated, the A-weighing is implied.

"Sound level meter" shall mean an instrument, including a microphone, an amplifier, readout, and frequency weighing networks for the measurement of sound levels which meets or exceeds the requirements pertinent for type S2A meters in the latest revision of the American National Standards Institute Specification for sound level meters.

(Prior code § 4-3.1002)

# 4.12.740 Sound level measurement.

The City shall establish appropriate standards and procedures to ensure the accuracy of sound level measurements. Any such measurements shall be made consistent with these standards and procedures.

(Prior code § 4-3.1003)

# 4.12.750 General sound level limits.

Except for exempted activities and sounds as provided in this chapter or exempted properties as referenced in <u>Section 4.12.800</u>, it shall be unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property in the applicable Base District Zone on which the sound is produced exceeds the applicable limits set forth below:

Base District	Sound
Zone	Level
	Limits
	(Decibels)
1. Residential Districts:	55
RE (Residential Estate)	
LDR (Low Density)	
MDR/MDC (Medium Density)	
HDR (High Density)	
RMH (Mobile Home)	
2. Commercial Districts:	65
MO Medical Office	
POM Professional Office	
and Medical	
CS Community Shopping	
NS Neighborhood Shopping	
CBD Central Business District	
GHC General Highway	
H-S Highway Service	-
3. Industrial Districts:	75
M-1 Light Industrial	
M-2 Heavy Industrial	
4. A (Agricultural)	75
5. AMO Aggregate Mineral	75
Overlay Zone	

(Prior code § 4-3.1004)

# 4.12.760 Limits for Planned Unit Developments.

In addition to the sound level limits established above, there is hereby established sound level limits for PUD (Planned Unit Development) base district zones.

For any residential land use within a PUD zone, the sound level limit is that limit which would be otherwise applicable in the residential district zone (RE, LDR, MDR/MDC, HDR, and RMH) corresponding to density of the residential development in that PUD zone.

For any nonresidential land use within a PUD zone, the sound level limit is that limit corresponding to the C (Commercial) or I (Industrial) zone which would be applicable to that use if not subject to the PUD zone. For the purposes of this section, a land use shall be that use shown on a duly approved planned development plan or specific plan.

(Prior code § 4-3.1005)

# 4.12.770 Limits for joint boundaries.

When property lines form the joint boundary of two (2) Base District Zones, the sound level limit shall be arithmetic mean of the limit applicable to each of the two (2) zones.

(Prior code § 4-3.1006)

# 4.12.780 Noncompliance with sound level limits—Extensions—Variations.

- (a) If the noise resulting from any activity, event, or enterprise in any base district zone shall exceed the applicable area sound level limit prescribed <u>Section 4.12.750</u> on three (3) or more days during any thirty (30) day period, the Community Development Director shall serve a notice of noncompliance on the owner of the property which produces the noise. Service shall be in the manner prescribed by <u>Section 4.12.910</u>. Such notice shall indicate the applicable sound level limit for the area, identify when and where excessive sound level measurements were taken, and report the sound level measured during each such measurement.
- (b) Within thirty (30) days of service of the notice of noncompliance, the owner of the property shall do one of the following:
  - (1) Reduce the level of noise produced on the property so as to conform to the applicable sound level limit referenced in the notice;
  - (2) Deliver a written application to the Community Development Director for an extension of time in which to bring the noise into conformance with the referenced sound level limit; such extension may be granted for a period not to exceed thirty (30) days;
  - (3) Deliver to the Community Development Director a written objection to any or all of the findings indicated, identified, or reported in the notice; the Community Development Director shall rule on the validity of such objections within fifteen (15) days of such delivery and, if found to be invalid, shall order the owner to comply with the applicable sound level limit; or
  - (4) Apply for a variation from the sound level limit otherwise applicable. The Planning Commission shall hear applications for a variation during a duly noticed public hearing. The notice requirements shall be the same as those required by the Tracy zoning regulations in connection with an application for a conditional use permit which requires that notice of the hearing be provided in the local newspaper at least ten days prior to the hearing, and that a mailer be provided regarding the hearing to property owners within 300 feet of the exterior boundary of the subject property, also ten (10) days prior to the hearing.

# 4.12.790 Required findings for the granting of a variation.

- The Planning Commission shall approve the application for a variation on the basis of the (a) application, materials, and testimonies submitted to it if it finds that the health and welfare benefits of reducing the noise so as to conform with the applicable sound level limit are clearly outweighed by the burden on the applicant and the community in ameliorating, reducing, or modifying the noise so as to conform with the limit.
- (b) In ruling on the application for the variation, the Planning Commission shall consider the following:
  - (1) The characteristics and conditions in Section 4-3.1010;
  - (2) The nature and zoning of the area within which the noise emanates;
  - (3) The density of inhabitation of the area in which the noise emanates;
  - (4) The economic impact on the applicant of bringing the subject property into conformance with the sound level limit; and
  - (5) The impact of the proposed variation on the health, safety, and welfare on persons exposed to sound levels thereby permitted.

(Prior code § 4-3.1008)

# 4.12.800 Exception and alternative sound level limits for certain properties.

Notwithstanding the general sound level limits provided in Section 4.12.740, an owner or operator of commercial or industrial properties may apply for an exemption from these limits and substitution of alternative sound level limits for the property. The application and approval of alternative sound level limits are controlled by Article 11 of this chapter.

Any alternative sound level limit duly approved by the City shall be enforceable in the same manner as the general sound level limits provided in Section 4.12.750.

(Prior code § 4-3.1009)

# 4.12.810 General prohibition.

- (a) It shall be unlawful for any person to make, continue, or cause to be made or continued, within the limits of the City, any disturbing, excessive, or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity.
- (b) The following characteristics and conditions shall be considered in determining whether there exists a violation of the general prohibition of this section but shall not be limited to:
  - (1) The level of noise;
  - (2) Whether the nature of the noise is usual or unusual;
  - (3) The level of background noise;
  - (4) The time of day or night the noise occurs;
  - (5) The duration of the noise;
  - (6) Whether the noise is recurrent, intermittent, or constant.
- (c) It shall be rebuttably presumed that any noise which complies with the area sound level limits prescribed by <u>Section 4.12.750</u> is not in violation of the general prohibition of this section.

(Prior code § 4-3.1010)

# 4.12.820 Specific noises prohibited.

Notwithstanding the rebuttable presumption referenced in <u>Section 4.12.810</u>, the following acts

are declared to cause disturbing, excessive, or offensive noises in violation of this article although such enumeration shall not be deemed to be exclusive:

- (a) Horns, signaling devices, etc. The intentional sounding of any horn or other signaling device on any automobile, motorcycle, or other vehicle, except as a danger warning; the creation by means of any such signaling device of any unreasonably loud or harsh sound; and the sounding of any such device for any unnecessary and unreasonable period of time;
- (b) Radios, phonographs, etc. The use or operation of any sound production or reproduction device, radio receiving set, musical instrument, drum, phonograph, television set, loud speaker, sound amplifier, or other sound machine or device used for the purpose of producing or reproducing sound in such a manner as to disturb the peace, quiet, or comfort of any reasonable person of normal sensitivity. The operation of any such machine or device in such a manner as to be plainly audible at a distance of fifty (50') feet from its location shall be prima facie evidence of a violation of this section;
- (c) Loud-speakers, amplifiers for advertising. The using, operating, or permitting to be played, used, or operated of any radio receiving set, musical instrument, phonograph, loud-speaker, sound amplifier or other machine or device for the producing or reproducing of sound which is cast upon the public streets for the purpose of commercial advertising or attracting the attention of the public to any building or structure;
- Yelling, shouting, etc. Yelling, shouting, hooting, whistling, or singing on the public streets, particularly between the hours of 10:00 p.m. and 7:00 a.m. or at any time or place so as to annoy or disturb the quiet, comfort, or repose of persons in any office, or any dwelling, hotel, or other type of residence or any persons in the vicinity;
- (e) Animals, birds, etc. The keeping of any animal or bird which by causing frequent or long-continued and unreasonably loud noise shall disturb the comfort or repose of any person of normal sensitivity in the vicinity;
- (f) Exhausts. The noise emanating into the open air of the noise from the exhaust of any stationary internal-combustion engine, motorboat, or motor vehicle except through a muffler or other device which will effectively prevent loud or explosive noises therefrom;
- (9) Hawkers, peddlers. The shouting and crying of peddlers, hawkers, and vendors which disturbs the peace and quiet of the persons in the vicinity;
- (h) Pile drivers, hammers, etc. The operation between the hours of 10:00 p.m. and 7:00 a.m. of any pneumatic or air hammer, pile driver, steam shovel, derrick, steam, or electric hoist, parking lot cleaning equipment or other appliance, the use of which is attended by loud or unusual noise;
- (i) Business and residential relationships:
  - Delivery vehicles shall have their engines turned off when stationary during the regular business hours (6:00 a.m. to 11:00 p.m.);
  - (2) It is unlawful for stores to be loading, unloading, opening or other handling of boxes, crates, containers, building materials, garbage cans, other similar objects and trash compactor operations between the hours of 10:00 p.m. and 7:00 a.m. in an area between a business and residential in such a manner to cause a noise disturbance across a residential property line or at any time to violate the general sound level limits;
  - (3) Store Deliveries by motorized refrigeration systems. Motorized refrigeration systems shall not be left running between the hours of 10:00 p.m. and 7:00 a.m. within seventy-five feet of a residential zone, residential use, or sleeping quarters;

(j) Motorized recreational vehicles operating off public right-of-way. No person shall operate or cause to be operated any motorized recreational vehicle off a public right-ofway in such a manner that the sound levels emitted therefrom violate the provisions of <u>Section 4.12.750</u>. This section shall apply to all motorized recreational vehicles, whether or not duly licensed and registered, including, but not limited to, commercial or noncommercial racing vehicles, motorcycles, go carts, amphibious craft, campers, snowmobiles and dune buggies, but not including motorboats.

(Prior code § 4-3.1011)

# 4.12.830 Exemptions.

- (a) Emergency work. The provisions of this article shall not apply to any emergency work as defined herein, provided that the City has been notified as soon as practical and any vehicle, device, apparatus or equipment used with the emergency work is designed, modified, or equipped to reduce sounds produced to the lowest possible level consistent with effective operation of such vehicle, device, apparatus, or equipment. The provisions of this article shall not apply to any emergency work conducted by the City or its assignees or to any other activity to the extent regulation thereof has been preempted by State or Federal law.
- (b) Sporting, entertainment, or public events. The provisions of this article shall not apply to:
  - (1) Those reasonable sounds emanating from authorized school activities;
  - (2) Those reasonable and typical sounds emanating from social gatherings;
  - (3) Sporting, entertainment and public events which are conducted pursuant to a license or permit issued by the City;
  - (4) Those reasonable sounds emanating from a sporting, entertainment, or public event except that it shall be unlawful to exceed those sound level limits set forth in <u>Section</u> <u>4.12.750</u> when measured at the property lines of any property which is used for residential purposes.
- (c) Refuse collection vehicles. Refuse collection vehicles shall be exempted from the general sound level limits prescribed in <u>Section 4.12.750</u>
- (d) Warning devices. Warning devices necessary for the protection of public safety (e.g. police, fire and ambulance sirens) shall be exempted from the provisions of this article.
- (e) Agricultural operations. All mechanical devices, apparatus, or equipment associated with agricultural operations conducted on agricultural property are exempt from the provisions of this article unless adjacent to residential land uses. Where agricultural operations are adjacent to residential land uses, the following stipulations shall apply:
  - (1) Operations do not take place between 8:00 p.m. and 6:00 a.m.; unless
  - (2) Such operations and equipment are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions; or
  - (3) Such operations and equipment are associated with agricultural pest control through pesticide application, provided the application is made in accordance with permits issued by or regulations enforced by the (appropriate authority); or
  - (4) Such devices utilized for pest control which incorporate stationary or mobile noise sources (electromechanical bird scare devices, etc.) are operated only on approval by the Community Development Director. The allowable hours and days for operation of these devices will be specified in the approval; and
  - (5) All equipment and machinery powered by internal combustion engines shall be equipped with a proper muffler and air intake silencer in good working order.

The provisions of this article shall not apply to any work conducted by the City or its assignees or to any other activity to the extent regulation thereof has been preempted by State or Federal law. All equipment and machinery powered by internal combustion engines shall be equipped with a proper muffler and air intake silencer in good working order.

(Prior code § 4-3.1012)

## 4.12.840 Minor maintenance to or improvement of real property.

The provisions of this article shall not apply to noise sources associated with minor maintenance (lawn mowers, power-brushes, leaf blowers, etc.) to or improvement of property used either in part or in whole for residential and nonresidential purposes provided said activities take place between the hours of 7:00 a.m. and 10:00 p.m. on weekdays or between the hours of 7:00 a.m. and 10:00 p.m. on weekdays.

(Prior code § 4-3.1013)

## 4.12.850 Preempted activities.

The provisions of this article shall not apply to any activity to the extent regulation thereof has been preempted by State or Federal law or which is a necessary or appropriate means of complying with health or safety requirements imposed by State or Federal law.

(Prior code § 4-3.1014)

# 4.12.860 Violations—Infractions and misdemeanors.

(Ord. 1040 § 5 Exh. E (part), 2002: prior code § 4-3.1015)

# 4.12.870 Violations—Public nuisance.

As an additional remedy, the operation or maintenance of any device, instrument, vehicle, machinery, or other item in violation of any provision of this article shall be deemed and is declared to be a public nuisance and may be subject to summary judicial abatement in order to preserve or protect the public health, safety, or welfare by a restraining order or injunction or by abatement and assessment in accordance with the procedures and processes set forth in this article.

Any person owning, leasing, occupying, or having charge of any premises in this City who maintains, uses, or allows to be used, in such a manner so as to make, create, or allow noise which is a public nuisance is subject to having the nuisance abated pursuant to the procedures and processes set forth in Sections <u>4.12.860</u> through <u>4.12.970</u>.

(Prior code § 4-3.1016)

# 4.12.880 Declaration of nuisances.

Whenever an officer of the Community Development Department, or such other City official as may be designated by the City Manager, determines that any premises within the City is maintained, used, or allowed to be used so as to be a public nuisance within the meaning of the definition set forth in <u>Section 4.12.730</u> then that person shall cause notice to be given in the manner provided in this article for the holding of a public hearing to ascertain whether the same does in fact constitute such public nuisance, the abatement of which is appropriate under the police power of the City.

(Prior code § 4-3.1017)

# 4.12.890 Form of notice of hearing.

Notice of the time and place of hearing before the City Council shall be entitled, "NOTICE OF HEARING," in letters not less than one inch in height and shall be substantially in the following form:

"NOTICE OF HEARING TO DETERMINE EXISTENCE OF PUBLIC NUISANCE AND TO ABATE IN WHOLE OR PART. Notice is hereby given that on the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_, at the hour \_\_\_\_\_ of said day, the City Council of the City of Tracy will hold a public hearing in the Council Chambers of the Tracy City Hall, located at Tracy, California, to ascertain whether certain premises situated in the City of Tracy, State of California, known and designated as , in said City, and more particularly described as , constitute a public nuisance subject to noise abatement by means necessary and appropriate to reduce, modify, or eliminate such noise. If said premises, in whole or part, are found to constitute a public nuisance as defined by the Tracy Municipal Code and if the same are not promptly abated by the owner, such nuisances may be abated by municipal authorities and upon such abatement cost will constitute a lien upon such land until paid. Said alleged violations consist of the following: . Said methods of abatement available are: namerule;. All persons having any objection to, or interest in said matters are hereby notified to attend a meeting of the City Council of the City of Tracy to be held on the \_\_\_\_\_ day of \_/\_\_\_\_\_, 19\_\_\_\_\_, the hour of \_\_\_\_\_\_, when their testimony and evidence will be heard and given due consideration. DATED: CODE ENFORCEMENT

OFFICER

(or title of such other City officer designated by the City Manager)" (Prior code § 4-3.1018)

# 4.12.900 Posting and serving notice.

An officer of the Community Development Department or such other City official as may be designated by the City Manager, shall cause to be served upon the owner of each of the affected premises a copy of said notice and shall cause a copy thereof to be conspicuously posted on each of the affected premises.

Said notice shall be posted and served at least fifteen (15) days before the time fixed for such hearing. Proof of posting and service of such notices shall be made by declaration under penalty of perjury filed with the City Council.

(Prior code § 4-3.1019)

# 4.12.910 Form of proper service of notice.

Service of said notice shall be by personal service upon the owner of the affected premises or by depositing a copy of said notice in the U.S. Mail enclosed in a sealed envelope and with postage thereon fully prepaid. Said mail shall be registered or certified and addressed to the said owner, and if there is no known address, then in care of the property address. The service is complete at the time of such deposit. "Owner," as used herein, shall mean any person in possession and also any person having or claiming to have any legal or equitable interest in said premises, as disclosed by a current title search from any accredited title company. The failure of any person to receive such notice shall not affect the validity of the proceedings hereunder.

# 4.12.920 Hearing by City Council.

At the time stated in the notices, the City Council shall hear and consider all relevant evidence, objections, or protests, and shall receive testimony from owners, witnesses, City personnel, and interested persons relative to such alleged public nuisance and the means necessary and appropriate to reduce, modify, or eliminate such nuisance from such premises. Said hearing may be continued from time to time.

(Prior code § 4-3.1021)

# 4.12.930 Decision of City Council.

Upon or after the conclusion of said hearing, the City Council shall, based upon such hearing, determine whether the premises, or any part thereof, as maintained, used, or allowed to be used in a manner constitute a public nuisance. If the City Council finds that such public nuisance does exist and that there is sufficient cause to order abatement of the nuisance, the City Council shall adopt a resolution setting forth its findings and ordering the owner or other person having charge or control of such premises to abate such nuisance by having such premises, buildings, structures, or activities thereon altered or eliminated in the manner and by the means specifically set forth in its resolution. Such resolution shall set forth times within which such work shall be commenced and completed by the owner. The decision and order of the City Council shall be final.

(Prior code § 4-3.1022)

# 4.12.940 Limitation of filing judicial action.

Any owner or other interested person having any objections or feeling aggrieved at any proceeding taken by the City Council in ordering the abatement of any public nuisance under the provisions of this article must bring an action to contest such decision within thirty (30) days after the date of such decision of the City Council. Otherwise all objections to such decision shall be deemed waived.

(Prior code § 4-3.1023)

# 4.12.950 Service of resolution to abate.

A copy of the resolution of the City Council ordering the abatement of said nuisance shall be served upon the owners of said property in accordance with the provisions of <u>Section 4.12.910</u> and shall contain a detailed list of needed corrections, alterations, and/or other noise abatement methods. Any property owner shall have the right to have any such premises or activities thereon altered or eliminated in accordance with said resolution and at his own expense provided the same is done prior to the expiration of abatement period set forth in the resolution. Upon such abatement in full by the owner, then proceedings hereunder shall terminate.

If such nuisance is not completely abated by the owner as directed within the designated abatement period, then the City Manager, or such other City official as may be designated by him, is authorized and directed to cause the same to be abated by the City forces or private contract, and the City Manager (or his designated agents) is expressly authorized to enter upon said premises for such purpose. Upon request of the designated official, other City departments shall cooperate fully and shall render all reasonable assistance in abating any such nuisance.

# 4.12.960 Record of cost for abatement.

- (a) The City Manager, or such other City official as may be designated by him or her, shall keep an account of the cost (including incidental expenses) of abating such nuisance on each separate lot or parcel of land where the work is done, and shall render an itemized report in writing to the said City Council showing the cost of noise abatement at said premises; provided, that before such report is submitted to said City Council, a copy of the same shall be posted for at least five (5) days upon such premises together with a notice of the time when the report shall be heard by the City Council for confirmation.
- (b) The City Council shall set the matter for hearing to determine the correctness or reasonableness, or both, of such costs.
- (c) A copy of said report and notice shall be served upon the owners of said property in accordance with the provisions of <u>Section 4.12.910</u>, at least five (5) days prior to the date of the City Council hearing.
- (d) Proof of said posting and service shall be made by declaration under penalty of perjury filed with the City Clerk.
- (e) The term "incidental expenses" shall include, but not be limited to, the actual expenses and costs of the City in preparation of notices, specifications, and contracts and in inspecting the work, and the costs of printing and mailing required hereunder.

(Prior code § 4-3.1025)

# 4.12.970 Report—Hearing and proceedings.

At the time and place fixed for receiving and considering said report, the City Council shall hear and pass upon the report of such costs of abatement, together with any objections or protests. Thereupon the City Council may make such revision, correction, or modification in the report as it may deem just, after which by resolution the report, as submitted or as revised, corrected, or modified, shall be confirmed. The decision of the City Council on all protests and objections which may be made shall be final and conclusive.

(Prior code § 4-3.1026)

# 4.12.980 Assessment of costs against property—Lien.

The total cost for abating such nuisance, as so confirmed by the City Council, shall constitute a special assessment against the respective lot or parcel of land to which it relates, and upon recordation in the office of the County Recorder of a notice of lien, as so made and confirmed, shall constitute a lien on said property for the amount of such assessment.

- (a) After such confirmation and recordation, a certified copy of such decision shall be sent to the tax division of the County Auditor-Controller's office, whereupon it shall be the duty of said Auditor-Controller to add the amounts of the respective assessments to the next regular tax bills levied against said respective lots and parcels of land for municipal purposes, and thereafter said amounts shall be collected at the same time and in the same manner as ordinary municipal taxes are collected, and shall be subject to the same penalties and the same procedure under foreclosure and sale in case of delinquency as provided for ordinary municipal taxes; or
- (b) After such recordation such lien may be foreclosed by judicial or other sale in the manner and means provided by law;

(c) Such notice of lien for recordation shall be in form substantially as follows:

## "NOTICE OF LIEN—CLAIM OF CITY OF

# TRACY.

Pursuant to the authority vested by the provisions of Article 9 of <u>Chapter 4.12</u> of the Tracy Municipal Code, the City manager of the City of Tracy (or his designated agents) did on or about the day of, 20\_\_\_\_\_\_, cause the premises hereinafter described to be altered, in order to abate a public nuisance on said real property; and the City Council of the City of Tracy did on the day of, 20\_\_\_\_\_\_, assess the cost of such abatement upon said real property hereinafter described; and the same has not been paid nor any part thereof; and that said City of Tracy does hereby claim a lien on such abatement in the amount of said assessment, to wit: the sum of \$\_\_\_\_\_\_; and the same shall be a lien upon said real property until the same has been paid in full and discharged of record. The real property hereinbefore mentioned, and upon which a lien is claimed, is that certain parcel of land lying and being in the City of Tracy, County of San Joaquin, State of California, and more particularly described as follows:

# (DESCRIPTION)

DATED:	
(ACKNOWLEDGEMENT)	City Manager of the City of Tracy."

(Ord. 1040 § 5 Exh. E (part), 2002; prior code § 4-3.1027)

# 4.12.990 Violations.

- (a) The owner or other person having charge or control of any such buildings or premises maintaining any public nuisance as defined in this chapter, or who violates any order of abatement made pursuant to <u>Section 4.12.930</u> is guilty of a misdemeanor.
- (b) Any person who removes any notice or order posted as required in this chapter is guilty of a misdemeanor.

(Prior code § 4-3.1028)

# 4.12.1000 Severability.

If any section, sentence, clause or phrase of this chapter is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this chapter. The City Council hereby declares that it would have passed this ordinance and adopted this chapter and each section, sentence, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

(Prior code § 4-3.1029)

APPENDIX 5.1:

**STUDY AREA PHOTOS** 





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IMG\_0056.JPG 37° 40.87' 0"121° 27.72' 0"



IMG\_0055.JPG 37° 40.87' 0"121° 27.71' 0"



IMG\_0057.JPG 37° 40.8' 0"121° 28.16' 0"



IMG\_0058.JPG 37° 40.8' 0"121° 28.16' 0"



IMG\_0059.JPG 37° 40.8' 0"121° 28.16' 0"



IMG\_0060.JPG 37° 40.79' 0"121° 28.16' 0"



IMG\_0063.JPG 37° 40.38' 0"121° 27.43' 0"



IMG\_0062.JPG 37° 43.05' 0"121° 27.53' 0"



IMG\_0064.JPG 37° 40.38' 0"121° 27.43' 0"



IMG\_0065.JPG 37° 40.38' 0"121° 27.43' 0"



IMG\_0066.JPG 37° 40.38' 0"121° 27.43' 0"



IMG\_0068.JPG 37° 40.49' 0"121° 27.58' 0"



IMG\_0069.JPG 37° 40.49' 0"121° 27.57' 0"



IMG\_0070.JPG 37° 40.49' 0"121° 27.57' 0"



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IMG\_0074.JPG 37° 40.49' 0"121° 27.57' 0"



IMG\_0075.JPG 37° 40.47' 0"121° 27.59' 0"



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IMG\_0077.JPG 37° 40.47' 0"121° 27.58' 0"



IMG\_0079.JPG 37° 40.51' 0"121° 27.62' 0"



IMG\_0080.JPG 37° 40.51' 0"121° 27.63' 0"



IMG\_0081.JPG 37° 40.5' 0"121° 27.63' 0"



IMG\_0083.JPG



IMG\_0084.JPG 37° 40.53' 0"121° 27.69' 0"



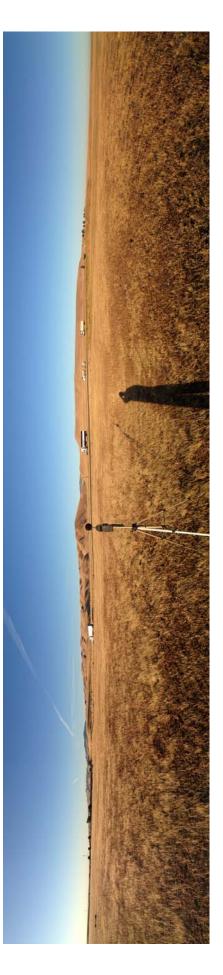
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IMG\_0087.JPG 37° 40.53' 0"121° 27.69' 0"



IMG\_0089.JPG 37° 40.53' 0"121° 27.69' 0"



IMG\_0067.JPG 37°40.49'0"121°27.57'0"



IMG\_0078.JPG 37° 40.47' 0"121° 27.59' 0"



IMG\_0082.JPG 37° 40.5' 0"121° 27.63' 0"



IMG\_0088.JPG 37° 40.53' 0"121° 27.69' 0" **2 of 2** 

APPENDIX 5.2:

# **NOISE LEVEL MEASUREMENT WORKSHEETS**

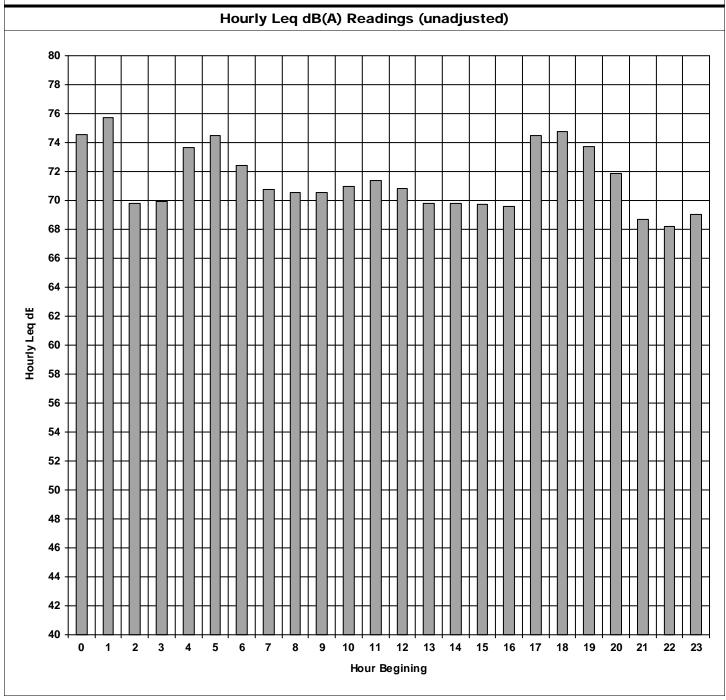


# 24-Hour Noise Level Measurement Summary - v20130414

Project Name: Tracy Hills

Job Number: 8559 Analyst: B. Lawson

Description: L1 - At I-580 Caltrans ROW Start Date: Thursday, May 30, 2013



Measured Peak Noise Hour: 1

Measured Peak Hour dBA Leq: 75.7

# 24-Hour Noise Level Measurement Summary - v20130414

Project Name: Tracy Hills

Job Number: 8559 Analyst: B. Lawson

Description: L1 - At I-580 Caltrans ROW Start Date: Thursday, May 30, 2013

Leq To CNEL Noise Calculations					
Noise Hour	Hourly Leq	CNEL Penalty	Adjusted Hourly Leq		
0	74.5	10	84.5		
1	75.7	10	85.7		
2	69.8	10	79.8		
3	69.9	10	79.9		
4	73.6	10	83.6		
5	74.5	10	84.5		
6	72.4	10	82.4		
7	70.8	0	70.8		
8	70.6	0	70.6		
9	70.6	0	70.6		
10	71.0	0	71.0		
11	71.4	0	71.4		
12	70.8	0	70.8		
13	69.8	0	69.8		
14	69.8	0	69.8		
15	69.7	0	69.7		
16	69.6	0	69.6		
17	74.5	0	74.5		
18	74.8	0	74.8		
19	73.7	5	78.7		
20	71.9	5	76.9		
21	68.7	5	73.7		
22	68.2	10	78.2		
23	69.0	10	79.0		

Calculated CNEL: 79.2



**Evening Hours** 

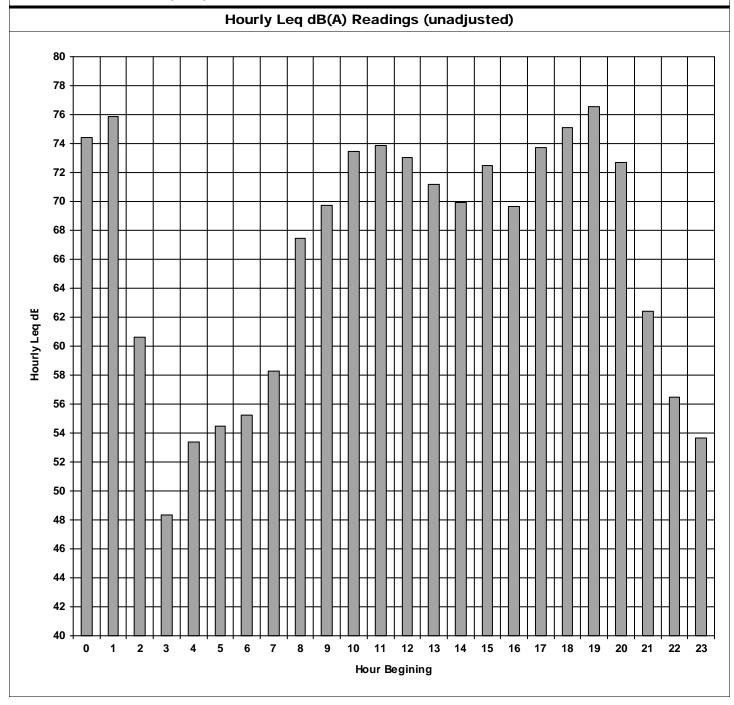
Nighttime Hours

#### 24-Hour Noise Level Measurement Summary - v20130414

Project Name: Tracy Hills

Job Number: 8559 Analyst: B. Lawson

Description: L2 - At 1,700 from I-580 Fwy. Start Date: Thursday, May 30, 2013



Measured Peak Noise Hour: 19 Measured Peak Hour dBA Leq: 76.6

#### 24-Hour Noise Level Measurement Summary - v20130414

Project Name: Tracy Hills

Job Number: 8559 Analyst: B. Lawson

Description: L2 - At 1,700 from I-580 Fwy. Start Date: Thursday, May 30, 2013

	Leq To CNEL N	oise Calculations	
Noise Hour	Hourly Leq	CNEL Penalty	Adjusted Hourly Leq
0	74.4	10	84.4
1	75.8	10	85.8
2	60.6	10	70.6
3	48.3	10	58.3
4	53.4	10	63.4
5	54.5	10	64.5
6	55.2	10	65.2
7	58.3	0	58.3
8	67.5	0	67.5
9	69.7	0	69.7
10	73.4	0	73.4
11	73.9	0	73.9
12	73.0	0	73.0
13	71.2	0	71.2
14	69.9	0	69.9
15	72.5	0	72.5
16	69.7	0	69.7
17	73.7	0	73.7
18	75.1	0	75.1
19	76.6	5	81.6
20	72.7	5	77.7
21	62.4	5	67.4
22	56.5	10	66.5
23	53.6	10	63.6

Calculated CNEL: 76.5



**Evening Hours** 

Nighttime Hours

Tracy - Weather Conditions,	Thrusday,	May 30, 2013
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Time (PDT)	Humidity	Pressure	Visibility	Wind Dir	Wind Spee	Gust Speed	Precip	Events	Condition
12:55 AM	65%	<b>29.90</b> in	<b>10.0</b> mi	WNW	8.1 mph	-	N/A		Clear
1:55 AM	74%	<b>29.90</b> in	<b>10.0</b> mi	NW	4.6 mph	-	N/A		Clear
2:55 AM	80%	<b>29.90</b> in	<b>10.0</b> mi	NW	5.8 mph	-	N/A		Clear
3:55 AM	77%	<b>29.89</b> in	<b>10.0</b> mi	NW	5.8 mph	-	N/A		Clear
4:55 AM	80%	<b>29.91</b> in	<b>10.0</b> mi	NW	5.8 mph	-	N/A		Clear
5:55 AM	77%	<b>29.91</b> in	<b>10.0</b> mi	West	6.9 mph	-	N/A		Clear
6:55 AM	72%	<b>29.91</b> in	<b>10.0</b> mi	West	4.6 mph	-	N/A		Clear
7:55 AM	62%	<b>29.94</b> in	<b>10.0</b> mi	WNW	10.4 mph	-	N/A		Clear
8:55 AM	50%	<b>29.94</b> in	<b>10.0</b> mi	WNW	11.5 mph	-	N/A		Clear
9:55 AM	37%	<b>29.94</b> in	<b>10.0</b> mi	West	11.5 mph	-	N/A		Clear
10:55 AM	34%	<b>29.94</b> in	<b>10.0</b> mi	NW	11.5 mph	19.6 mph	N/A		Clear
11:55 AM	36%	<b>29.94</b> in	<b>10.0</b> mi	WNW	15.0 mph	20.7 mph	N/A		Clear
12:55 PM	36%	<b>29.94</b> in	<b>10.0</b> mi	NW	12.7 mph	21.9 mph	N/A		Clear
1:55 PM	27%	<b>29.93</b> in	<b>10.0</b> mi	WNW	13.8 mph	21.9 mph	N/A		Clear
2:55 PM	27%	<b>29.91</b> in	<b>10.0</b> mi	West	11.5 mph	17.3 mph	N/A		Clear
3:55 PM	19%	<b>29.90</b> in	<b>10.0</b> mi	NW	8.1 mph	-	N/A		Clear
4:55 PM	17%	29.88 in	<b>10.0</b> mi	NW	12.7 mph	21.9 mph	N/A		Clear
5:55 PM	25%	29.88 in	<b>10.0</b> mi	NW	12.7 mph	17.3 mph	N/A		Clear
6:55 PM	25%	<b>29.89</b> in	<b>10.0</b> mi	NW	11.5 mph	-	N/A		Clear
7:55 PM	26%	<b>29.90</b> in	<b>10.0</b> mi	West	12.7 mph	-	N/A		Clear
8:55 PM	36%	<b>29.91</b> in	<b>10.0</b> mi	West	11.5 mph	-	N/A		Clear
9:55 PM	43%	<b>29.92</b> in	<b>10.0</b> mi	West	8.1 mph	-	N/A		Clear
10:55 PM	43%	<b>29.92</b> in	<b>10.0</b> mi	WNW	8.1 mph	-	N/A		Clear
11:55 PM	52%	<b>29.94</b> in	<b>10.0</b> mi	NE	4.6 mph	-	N/A		Clear

APPENDIX 7.1:

**ON-SITE TRAFFIC NOISE ANALYSIS WORKSHEETS** 



			4	Peak Hour Noise Level (dBA Leq)	Noise Leve	l (dBA Leq	(				24-Hour N	24-Hour Noise Level (dBA CNEL)	dBA CNEL)		
Q	Location	No	,9	,8	,0T	12'	14'	16'	No	,9	8،	10'	12'	14'	16'
		Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
R-1	Backyard	67.2	66.0	65.1	63.8	62.2	61.1	60.0	72.2	71.0	70.1	68.8	67.2	66.1	65.0
R-2	Frontyard	67.3	67.4	67.4	67.0	66.0	63.2	62.1	72.3	72.4	72.4	72.0	71.0	68.2	67.1
R-3	Backyard	62.9	62.9	62.7	61.3	58.3	57.4	56.9	67.9	67.9	67.7	66.3	63.3	62.4	61.9
R-4	Backyard	66.0	66.1	60.7	58.5	56.7	55.4	54.5	71.0	71.1	65.7	63.5	61.7	60.4	59.5
R-5	Backyard	63.9	63.9	61.0	59.8	58.8	57.5	56.7	68.9	68.9	0.99	64.8	63.8	62.5	61.7
R-6	Backyard	67.7	68.2	68.2	66.8	65.6	62.8	62.5	72.7	73.2	73.2	71.8	70.6	67.8	67.5
R-7	Frontyard	62.9	66.2	66.1	66.0	65.4	63.5	60.7	70.9	71.2	71.1	71.0	70.4	68.5	65.7
R-8	Backyard	68.2	68.3	68.3	68.3	67.7	65.2	62.7	73.2	73.3	73.3	73.3	72.7	70.2	67.7
R-9	Frontyard	66.5	66.7	66.7	9.99	64.6	61.3	60.1	71.5	71.7	71.7	71.6	9.69	66.3	65.1
R-10	Backyard	66.4	64.5	58.9	57.2	54.4	52.9	53.0	71.4	69.5	63.9	62.2	59.4	57.9	58.0
C-1	Community	53.3	53.9	53.9	53.9	53.9	54.0	54.0	58.3	58.9	58.9	58.9	58.9	59.0	59.0
C-2	Community	53.2	54.0	54.0	54.0	54.0	54.2	54.4	58.2	59.0	29.0	59.0	59.0	59.2	59.4
C-3	Community	55.1	56.2	56.2	56.2	56.2	56.2	56.4	60.1	61.2	61.2	61.2	61.2	61.2	61.4
C-4	Community	57.3	58.8	58.8	58.7	58.7	58.7	58.7	62.3	63.8	63.8	63.7	63.7	63.7	63.7
	Eutrus CNEL active laugh and heard heard an the Calturate contraction heatman	ad beend on	Coltrade		•	deserve to to to	A non-provided and a second		Tashaisal N		14.00				

Future CNEL noise levels calculated based on the Caltrans conversion between noise descriptors methodology (Section 2.2.3 Technical Noise Supplement)

Tracy Hills Phase 1 Noise Anlaysis Tracy, CA (JN: 08599-10.xlsx)



**Future Exterior Noise Levels** 

				Noise	Noise Level (dBA CNEL)	CNEL)		
₽	Location	No Wall	6' Wall	8' Wall	10' Wall	12' Wall	14' Wall	16' Wall
R-1	Backyard		1.2	2.1	3.4	5.0	6.1	7.2
R-2	Frontyard		-	-	6.0	1.3	4.1	5.2
R-3	Backyard		-	0.2	1.6	4.6	5.5	6.0
R-4	Backyard		ı	5.3	7.5	6.3	10.6	11.5
R-5	Backyard		ı	2.9	<b>1.1</b>	5.1	6.4	7.2
R-6	Backyard		ı	-	6.0	2.1	4.9	5.2
R-7	Frontyard		·		-	0.5	2.4	5.2
R-8	Backyard		-	-	-	0.5	3.0	5.5
R-9	Frontyard		ı	I	1	1.9	5.2	6.4
R-10	Backyard		1.9	7.5	9.2	12.0	13.5	13.4
C-1	Community		I	I	I	I	I	I
C-2	Community		ı	I	I	I	I	I
C-3	Community		ı	I	I	ı	I	I
C-4	Community		ı	ı	ı	ı	ı	ı

Noise Barrier Barrier Attenuation

Tracy Hills Phase 1 Noise Anlaysis Tracy, CA (JN: 08599-10.xlsx)



RESULTS: SOUND LEVELS						08559				
Urban Crossroads						28 August 2013	t 2013			
Е						TNM 2.5				
						Calculate	Calculated with TNM 2.5	2.5		
RESULIS: SOUND LEVELS BPO IECTICONTBACT.	U0EEO									
PROJECT/CONTRACT.	U00009	9								
BARRIER DESIGN:	.NANI						Average p	avement type s	Average pavement type shall be used unless	S
							a State hig	lhway agency s	a State highway agency substantiates the use	se
ATMOSPHERICS:	68 de	68 deg F, 50% RH	т				of a differ	ent type with ap	of a different type with approval of FHWA.	
Receiver										
Name No.	o. #DUs	Existing	No Barrier					With Barrier		
		LAeq1h	LAeq1h		Increase over existing	r existing	Type	Calculated N	<b>Noise Reduction</b>	
			Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h C	Calculated Goal	Calculated
						Sub'l Inc	•			minus
										Goal
		dBA	dBA	dBA	dB	dB		dBA dB	3 dB	dB
R-1	52	1 62.0	0 67.2		66 5.2	2 10	Snd Lvl	66.0	1.2	6.8
R-2	53	1 0.0	0 67.3		66 67.3	3 10	Snd Lvl	67.4	-0.1	8 -8.1
R-3	54	1 0.0	0 62.9		66 62.9	9 10	1	62.9	0.0	8-8.0
R-4	55	1 0.0	0 66.0		66 66.0	0 10	Snd Lvl	66.1	-0.1	81
R-5	56	1 0.0	0 63.9		66 63.9	9 10	1	63.9	0.0	8-8.0
R-6	57	1 0.0	0 67.7		66 67.7	7 10	Snd Lvl	68.2	-0.5	8 -8.5
R-7	58	1 0.0	0 65.9		66 65.9	9 10	1	66.2	-0.3	8 -8.3
R-8	59	1 0.0	0 68.2		66 68.2	2 10	Snd Lvl	68.3	-0.1	81
R-9	60	1 0.0	0 66.5		66 66.5	5 10	Snd Lvl	66.7	-0.2	8 -8.2
R-10	61	1 0.0	0 66.4		66 66.4	4 10	Snd Lvl	64.5	1.9	8 -6.1
C-1	62	1 0.0	0 53.3		66 53.3	3 10	1	53.9	9.0-	8 -8.6
C-2	63	1 0.0	0 53.2		66 53.2	2 10	1	54.0	-0.8	8.8-
C-3	64	1 0.0	0 55.1		66 55.1	1 10	1	56.2	-1.1	-9.1
C-4	65	1 0.0	0 57.3		66 57.3	3 10	1	58.8	-1.5	8 -9.5
Dwelling Units	# DUs		<b>Noise Reduction</b>							
		Min	Avg	Мах						
		dB	dB	dB						
All Selected	-	14 -1.5	5 -0.2		1.9					
All Impacted		7 -0.5	5 0.3		1.9					
All that meet NR Goal		0.0	0.0	0.0	0					

<b>RESULTS: SOUND LEVELS</b>						08559	_						
Urban Crossroads						28 AI	28 August 2013	2013					
EL						TNM 2.5 Calculat	2.5 Ilated	TNM 2.5 Calculated with TNM 2 5	о <del>г</del>				
RESULTS: SOUND LEVELS									2				
PROJECT/CONTRACT:	08559	60											
RUN:	Futt	Future_8											
<b>BARRIER DESIGN:</b>	R	INPUT HEIGHTS	S					Average p	avement typ	Average pavement type shall be used unless	ed unless		
ATMOSPHEBICS.	89	68 ded E 50% PH	Ц					l State hiç Mare	hway agenc	a State highway agency substantiates the use of a different tyrne with sourcoval of EHWA	es the us	Ð	_
Paraivar Baraivar	8												
Name	No. #DUs	ls Existing		No Barrier					With Barrier				
				LAeq1h	Increas	Increase over existing		Type	Calculated	Noise Reduction	ction		
		•		Calculated Crit'n		ated Crit'n		Impact	LAeq1h	Calculated	Goal	Calculated	ed
							рс					minus	
												Goal	
		dBA	dE	dBA dBA	dB	đB			dBA	dB	dB	dB	
R-1	52	1 6	62.0	67.2	66	5.2	10	Snd Lvl	65.1	2.1	_	8	-5.9
R-2	53	-	0.0	67.3	66	67.3	10	Snd Lvl	67.4	t -0.1	_	8	<del>6</del> .
R-3	54	~	0.0	62.9	66	62.9	10	1	62.7	0.2	0		-7.8
R-4	55	-	0.0	66.0	66	66.0	10	Snd Lvl	60.7	5.3	m	8	-2.7
R-5	56	-	0.0	63.9	66	63.9	10	1	61.0	2.9	0	8	-5.1
R-6	57	-	0.0	67.7	66	67.7	10	Snd Lvl	68.2	2 -0.5	10	8	-8.5
R-7	58	-	0.0	65.9	66	65.9	10	1	66.1	-0.2	0	8	-8.2
R-8	59	-	0.0	68.2	66	68.2	10	Snd Lvl	68.3	-0.1	_	8	-8. 1
R-9	60	-	0.0	66.5	66	66.5	10	Snd Lvl	66.7	-0.2	0	8	-8.2
R-10	61	-	0.0	66.4	66	66.4	10	Snd Lvl	58.9	9 7.5	10	8	-0.5
C-1	62	-	0.0	53.3	66	53.3	10	1	53.9	9.0-	6	8	-8.6
C-2	63	-	0.0	53.2	66	53.2	10	1	54.0	0.8	m		-8.8
C-3	64	-	0.0	55.1	66	55.1	10	1	56.2	-1.1	_		-9.1
C-4	65	-	0.0	57.3	66	57.3	10		58.8	-1.5	10	8	-9.5
Dwelling Units	# DUs	Us Noise Reduction	Redu	ction									
		Min	<	Avg Max									
		dВ	σ	dB dB									
All Selected		14	-1.5	6.0	7.5								
All Impacted		- 2	-0.5	2.0	7.5								
All that meet NR Goal		0	0.0	0.0	0.0								

<b>RESULTS: SOUND LEVELS</b>						08559							
Urban Crossroads						28 August 2013	ist 2013						
EL						<b>TNM 2.5</b>							
						Calculat	Calculated with TNM 2.5	NM 2.5					
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:	08559												
RUN:	Future_10	_10											
BARRIER DESIGN:	INPUT	INPUT HEIGHTS	S				Averaç	je pavemei	nt type s	Average pavement type shall be used unless	d unless		
							a State	highway a	Igency s	a State highway agency substantiates the use	es the use	đ	
ATMOSPHERICS:	68 deç	68 deg F, 50% RH	RH				of a di	ferent type	e with ap	of a different type with approval of FHWA.	HWA.		
Receiver													
Name No.	#DUs	Existing	g No Barrier					With Barrier	arrier				
		LAeq1h	LAeq1h		Increase ov	Increase over existing	Type	Calculated		<b>Noise Reduction</b>	tion		
			Calculated	Crit'n	Calculated	Crit'n		LAeq1h		Calculated	Goal	Calculated	ated
						Sub'l Inc						minus	
												Goal	
		dBA	dBA	dBA	dB	dВ		dBA	q	dB	dB	dB	
R-1 5	52	0	62.0 67	67.2 (	99	5.2	10 Snd Lvl	<u>۲</u>	63.8	3.4		8	-4.6
R-2 5	53	-	0.0	67.3 (	66 6	67.3	10 Snd Lvl	7	67.0	0.3		8	-7.7
R-3	54	-	0.0	62.9	66	62.9	10		61.3	1.6		8	-6.4
R-4 5	55 ,	-	0.0	66.0	66 6	. 0.99	10 Snd Lvl	<u>_</u>	58.5	7.5		8	-0.5
R-5	56	-	0.0	63.9	66	63.9	10		59.8	4.1		8	-3.9
R-6	57 .	-	0.0	67.7 (	66 66	67.7	10 Snd Lvl	<u>۲</u>	66.8	0.9		8	-7.1
R-7 5	58	-	0.0	65.9	66 6	65.9	10		66.0	-0.1		8	-8. 1
R-8	59	<del>-</del>	0.0	68.2	99	68.2	10 Snd Lvl	<u>_ر</u>	68.3	-0.1		8	<del>.</del> 4
R-9 6	. 09	-	0.0	66.5	66 6	66.5	10 Snd Lvl	<u>_ر</u> ا	66.6	-0.1		8	-8.1
R-10 6	61	-	0.0	66.4 (	66 6	66.4	10 Snd Lvl	<u>&gt;</u>	57.2	9.2		8	1.2
6 6	62	-	0.0 53	53.3 (	66 5	53.3	10		53.9	9.0-		8	-8.6
6 C-2	63	~	0.0 53	53.2 (	66 5	53.2	10		54.0	-0.8		8	8.8- 8
G-3	64	-	0.0 55	55.1 (	66 5	55.1	10		56.2			8	-9.1
C-4 6	65	7	0.0	57.3	66 5	57.3	10		58.7	-1.4		8	-9.4
Dwelling Units	# DUs	ł	<b>Noise Reduction</b>										
		Min	Avg	Мах									
		dB	dB	dB									
All Selected	14		-1.4	1.6 9	9.2								
All Impacted		-	-0.1	3.0 9	9.2								
All that meet NR Goal		1	9.2	9.2 9	9.2								

RESULTS: SOUND LEVELS						08559					
Urban Crossroads						28 August 2013	st 2013				
EL						<b>TNM 2.5</b>					
						Calculate	Calculated with TNM 2.5	1 2.5			
RESULTS: SOUND LEVELS											
PROJECT/CONTRACT:	08559										
RUN:	Future_12	_12									
BARRIER DESIGN:	INPUT	INPUT HEIGHTS	S				Average	Average pavement type shall be used unless	e shall be use	d unless	
							a State hi	a State highway agency substantiates the use	y substantiate	es the use	0
ATMOSPHERICS:	68 deç	68 deg F, 50% RH	ЯH				of a differ	of a different type with approval of FHWA.	approval of F	HWA.	
Receiver											
Name No.	#DUs	Existing	J No Barrier					With Barrier		1	
		LAeq1h	LAeq1h		Increase over existing	er existing	Type	Calculated	<b>Noise Reduction</b>	tion	
			Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
						Sub'l Inc	•	•			minus
											Goal
		dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R-1 5	52 、	30	62.0 67	67.2 (	566	5.2 10	0 Snd Lvl	62.2	5.0		-3.0
R-2 5	53 、	-	0.0	67.3 6	66 67	67.3 10	0 Snd Lvl	66.0	1.3		8 -6.7
R-3 5	54 1		0.0	62.9	66 62	62.9 10	0	58.3	4.6		8 -3.4
R-4 5	55 1		0.0	66.0	66 66	66.0 10	0 Snd Lvl	56.7	9.3	-	1.3
R-5	56 1		0.0	63.9	66 63	63.9 10		58.8	5.1		8 -2.9
R-6	57 1		0.0	67.7 6	66 67	67.7 10	0 Snd Lvl	65.6	2.1		8 -5.9
R-7 5	58 1		0.0	65.9 6	66 65	65.9 10	0	65.4	0.5	-	8 -7.5
R-8	59 1		0.0	68.2 (	66 68	68.2 10	0 Snd Lvl	67.7	0.5		8 -7.5
R-9	60 1		0.0	66.5 6	66 66	66.5 10	0 Snd Lvl	64.6	1.9		-6.1
R-10 6	61 1		0.0	66.4 6	66 66	66.4 10	0 Snd Lvl	54.4	12.0		8 4.0
G-1	62 、	-	0.0 53	53.3 (	66 53	53.3 10		53.9	9.0-		8 -8.6
G-2	63 1		0.0 53	53.2 6	66 53	53.2 10		54.0	-0.8	-	8.8-
6 C-3	64 1		0.0 55	55.1 6	66 55	55.1 10		56.2	-1.1		-9.1
C-4 6	65 1		0.0	57.3	66 57	57.3 10	0	58.7	-1.4		8 -9.4
Dwelling Units	# DUs	ł	<b>Noise Reduction</b>								
		Min	Avg	Мах							
		dB	đB	dB							
All Selected	14		-1.4	2.7 12.0	0.						
All Impacted			0.5	4.6 12.0	0.						
All that meet NR Goal		2	9.3 1(	10.6 12.0	0.						

<b>RESULTS: SOUND LEVELS</b>						08559					
Urban Crossroads						28 August 2013	t 2013				
EL						TNM 2.5		1			
						Calculate	Calculated with TNM 2.5	2.5			
	002200										
	ACCON										
		9_14							·		
BARRIER DESIGN:	DAN						Average p	avement type	Average pavement type shall be used unless a State hickway accord substantiates the use	inless he use	
ATMOSPHERICS:	68 de	68 deg F, 50% RH	т				of a differ	ent type with a	a Jtate ingriway agency substantiates the of a different type with approval of FHWA.	IA.	
Receiver											
Name	. #DUs	Existing	No Barrier					With Barrier			
		LAeq1h	LAeq1h		Increase over existing	er existing	Type		<b>Noise Reduction</b>	5	
		•	Calculated	Crit'n	Calculated	Crit'n	Impact		Calculated Goal	bal	Calculated
						Sub'l Inc	•				minus
											Goal
		dBA	dBA	dBA	dB	dB		dBA 0	dB dB		dB
R-1	52	1 62.0	0 67.2		66 55	5.2 10	Snd Lvl	61.1	6.1	8	-1.9
R-2	53	1	0.0 67.3		66 67	67.3 10	Snd Lvl	63.2	4.1	8	-3.9
R-3	54	1	0.0 62.9		66 62	62.9 10	-	57.4	5.5	8	-2.5
R-4	55	1	0.0 66.0		66 66	66.0 10	Snd Lvl	55.4	10.6	ω	2.6
R-5	56	1	0.0 63.9		66 63	63.9 10		57.5	6.4	80	-1.6
R-6	57	1	0.0 67.7		66 67.7	.7 10	Snd Lvl	62.8	4.9	80	-3.1
R-7	58	1	0.0 65.9		66 65	65.9 10		63.5	2.4	8	-5.6
R-8	59	1 0	0.0 68.2		66 68	68.2 10	Snd Lvl	65.2	3.0	80	-5.0
R-9	60	1	0.0 66.5		66 66	66.5 10	Snd Lvl	61.3	5.2	80	-2.8
R-10	61	1	0.0 66.4		66 66	66.4 10	Snd Lvl	52.9	13.5	80	5.5
C-1	62	1	0.0 53.3		66 53	53.3 10		54.0	-0.7	80	-8.7
C-2	63	1	0.0 53.2		66 53	53.2 10		54.2	-1.0	80	0.6-
C-3	64	1	0.0 55.1		66 55	55.1 10		56.2	-1.1	ω	-9.1
C-4	65	1	0.0 57.3		66 57	57.3 10		58.7	-1.4	8	-9.4
Dwelling Units	# DUs		<b>Noise Reduction</b>								
		Min	Avg	Мах							
		dB	dB	dB							
All Selected	-	14 -1.4		4.1 13.5	5						
All Impacted		7 3	3.0 6	6.8 13.5	5						
All that meet NR Goal		2 10.6	6 12.0	.0 13.5	5						

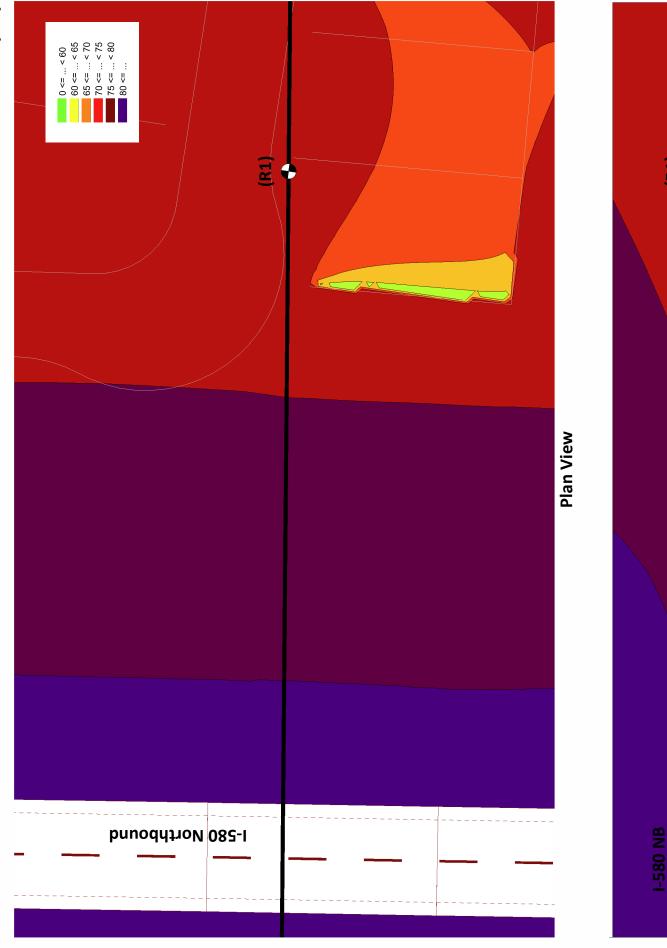
<b>RESULTS: SOUND LEVELS</b>						08559					
Urban Crossroads						28 August 2013	t 2013				
EL						<b>TNM 2.5</b>					
						Calculate	Calculated with TNM 2.5	2.5			
RESULTS: SOUND LEVELS											
PROJECT/CONTRACT:	08559										
RUN:	Future_16	_16									
BARRIER DESIGN:	INPUT	INPUT HEIGHTS	S				Average p	avement type	Average pavement type shall be used unless	d unless	
							a State high	ghway agenc	a State highway agency substantiates the use	es the use	•
ATMOSPHERICS:	68 deç	68 deg F, 50% RH	ЯH				of a differ	ent type with	of a different type with approval of FHWA.	HWA.	
Receiver											
Name No.	#DUs	Existing	J No Barrier					With Barrier			
		LAeq1h	LAeq1h		Increase over existing	existing	Type	Calculated	<b>Noise Reduction</b>	tion	
		•		Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
						Sub'l Inc		•			minus
											Goal
		dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R-1 52	,	62	62.0 67	67.2 6	66 5	5.2 10	Snd Lvl	60.0	7.2		8-0-
R-2 53		1	0.0	67.3 6	66 67.3	3 10	Snd Lvl	62.1	5.2		8 -2.8
R-3 54		1	0.0	62.9	66 62.9	9 10		56.9	6.0		8 -2.0
R-4 55		-	0.0	66.0	66 66.0	0 10	Snd Lvl	54.5	11.5		8 3.5
R-5 56		1	0.0	63.9	66 63.9	9 10		56.7	7.2		8 -0.8
R-6 57		1	0.0	67.7 6	66 67.7	7 10	Snd Lvl	62.5	5.2		8 -2.8
R-7 58		1	0.0	65.9	66 65.9	9 10		60.7	5.2		8 -2.8
R-8 59		1	0.0	68.2 6	66 68.2	2 10	Snd Lvl	62.7	5.5		8 -2.5
R-9 60		1	0.0	66.5 6	66 66.5	5 10	Snd Lvl	60.1	6.4		-1.6
R-10 61		1	0.0	66.4 6	66 66.4	4 10	Snd Lvl	53.0	13.4		8 5.4
C-1 62		1	0.0 53	53.3 6	66 53.3	3 10		54.0	-0.7		8 -8.7
C-2 63		-	0.0 53	53.2 6	66 53.2	2 10		54.4	-1.2		8 -9.2
C-3 64		1	0.0 55	55.1 6	66 55.1	1 10		56.4	-1.3		-9.3
C-4 65		1 (	0.0	57.3 6	66 57.3	.3 10	(	58.7	-1.4		-9.4
Dwelling Units	# DUs		<b>Noise Reduction</b>								
		Min	Avg	Мах							
		dB	dB	dB							
All Selected	14		-1.4	4.9 13.4	4.						
All Impacted			5.2	7.8 13.4	4.						
All that meet NR Goal		2	11.5 12	12.5 13.4	4.						

APPENDIX 7.2:

#### FOCUSED EXTERIOR NOISE CONTOUR BOUNDARIES



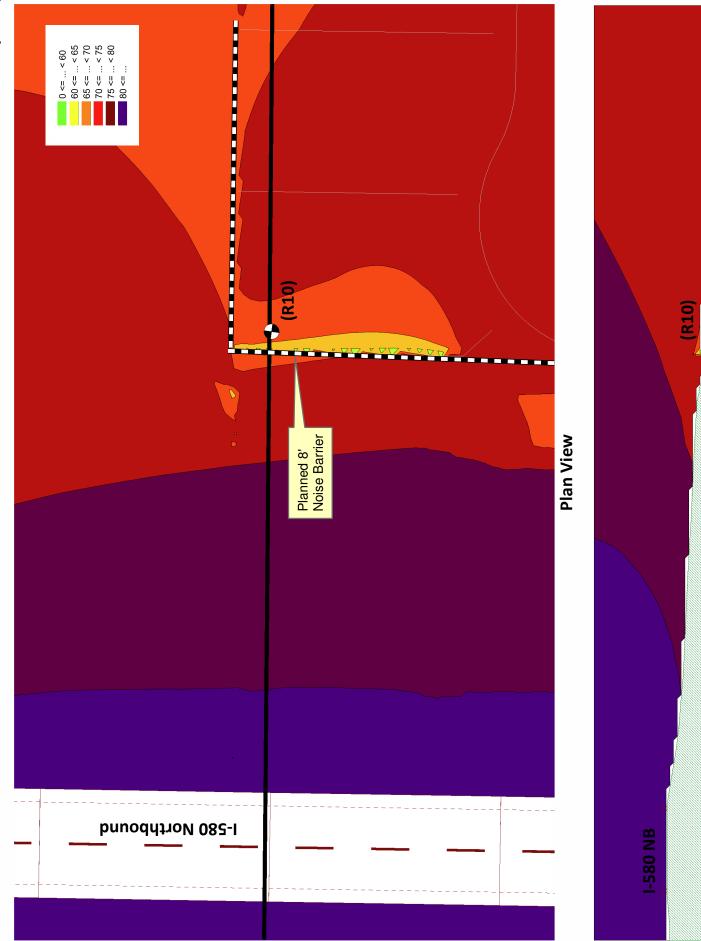
Noise Receiver Location (R1)



**Cross-Section View** 

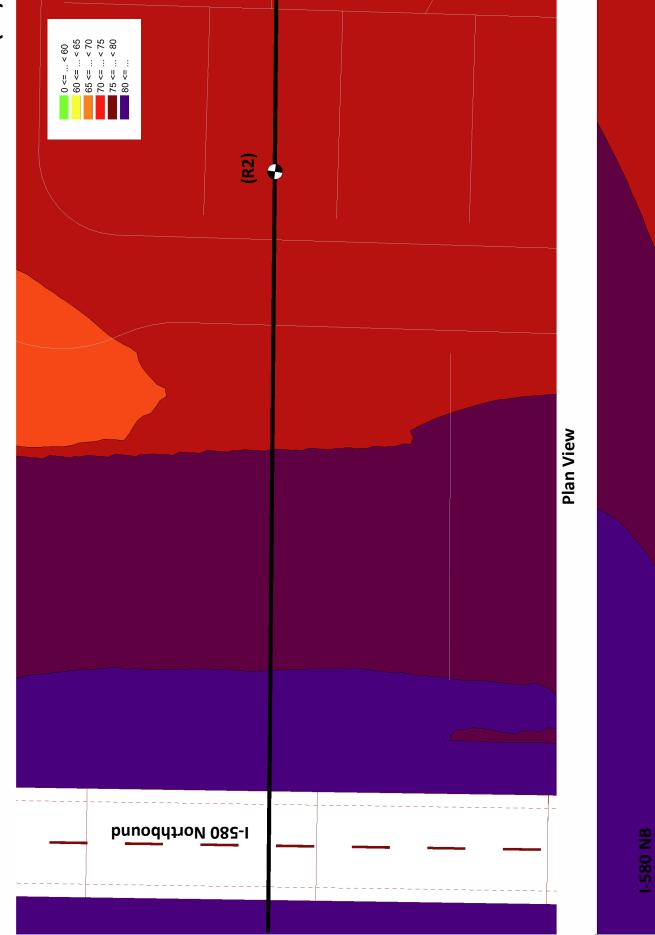
(R1)

# Noise Receiver Location (R10)



### **Cross-Section View**

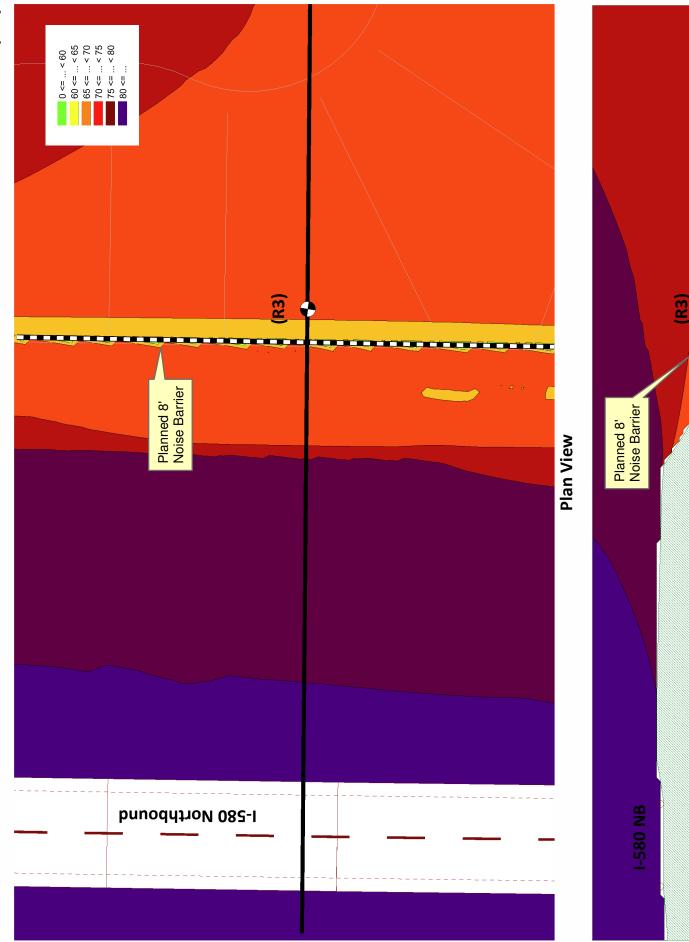
Noise Receiver Location (R2)



**Cross-Section View** 

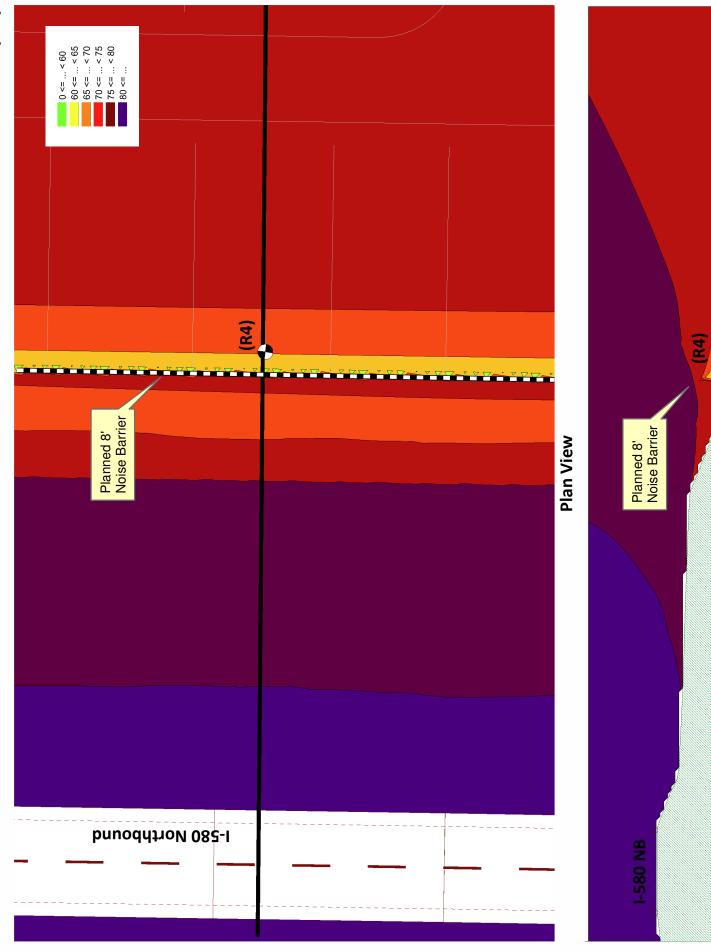
(R2)

Noise Receiver Location (R3)



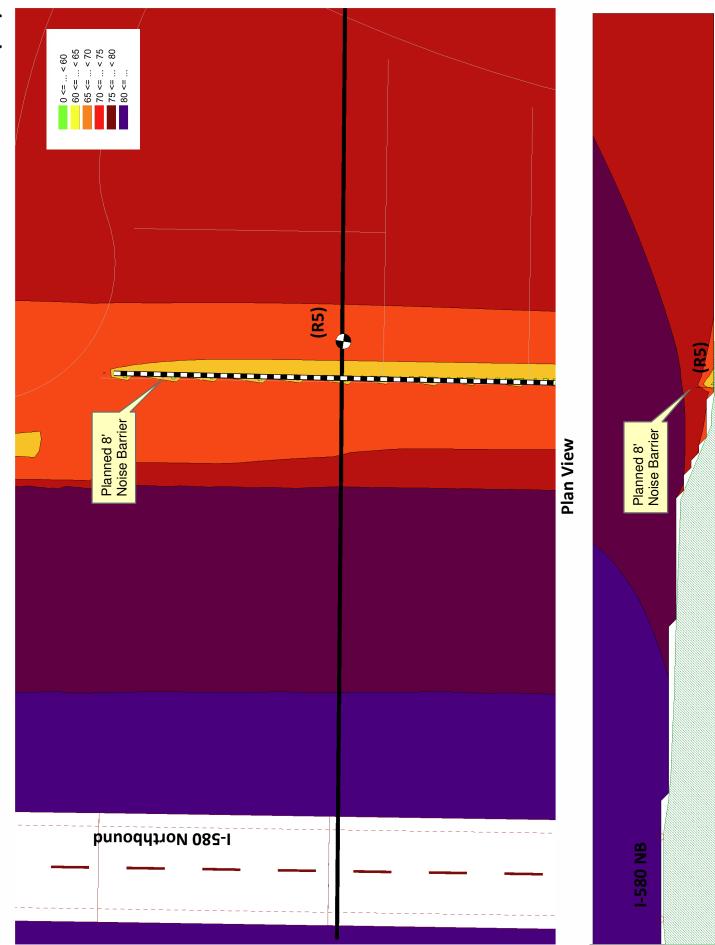
**Cross-Section View** 

Noise Receiver Location (R4)



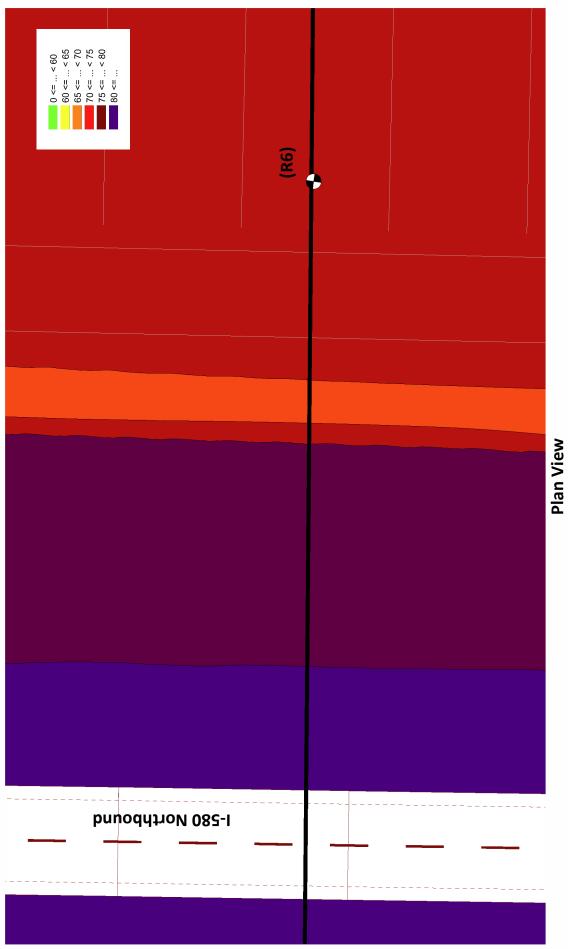
**Cross-Section View** 

## **Cross-Section View**



Noise Receiver Location (R5)



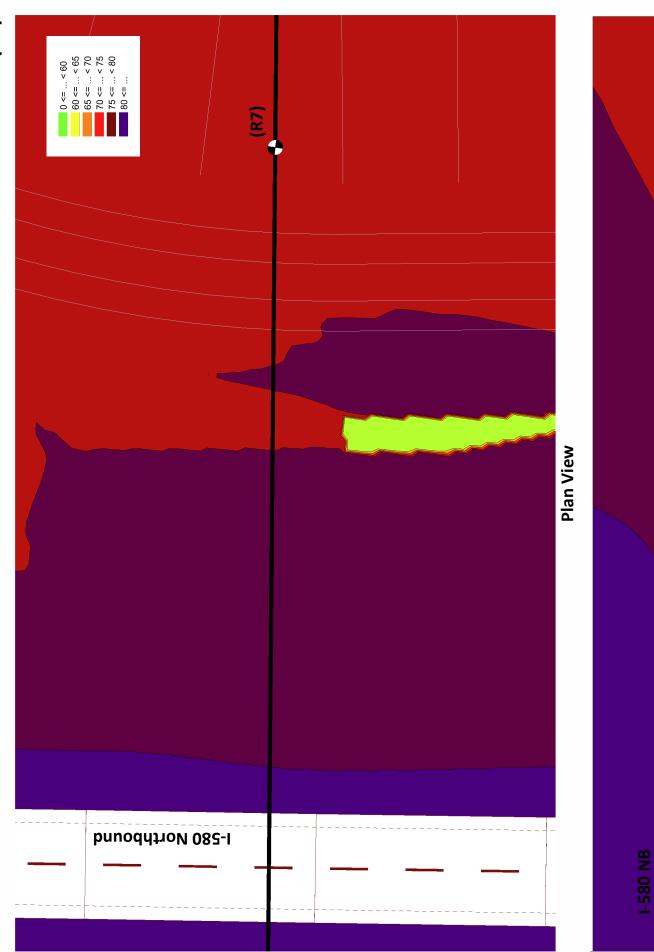


## **Cross-Section View**

I-580 NB

(R6)

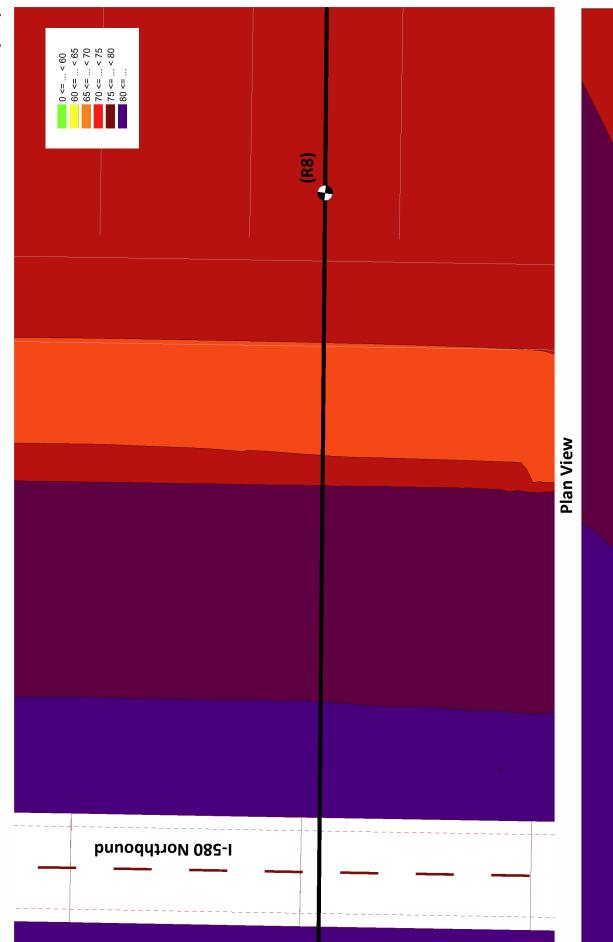
Noise Receiver Location (R7)



## **Cross-Section View**

(R7)

Noise Receiver Location (R8)

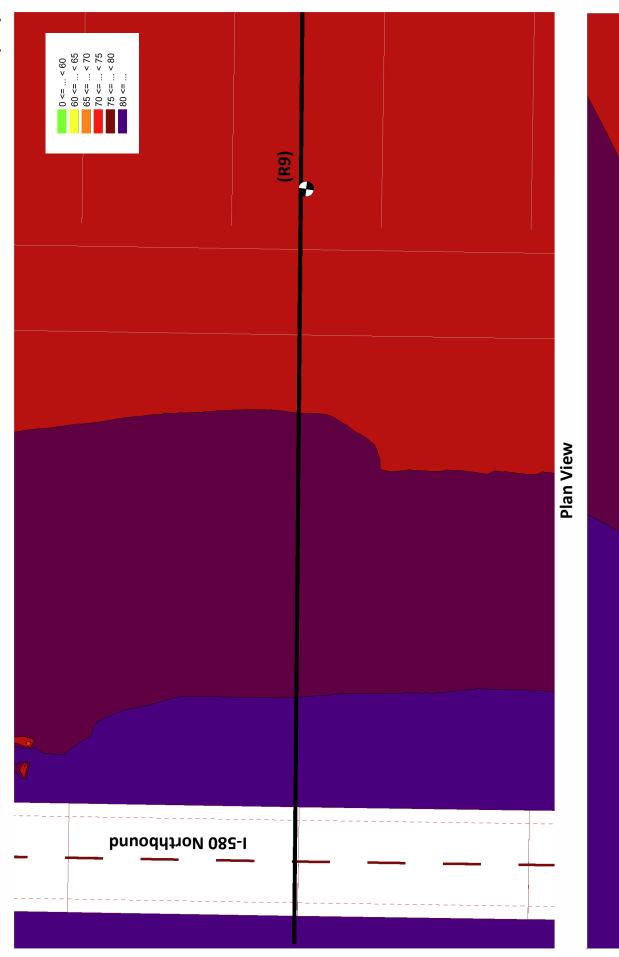


## **Cross-Section View**

I-580 NB

(R8)

## Noise Receiver Location (R9)



## **Cross-Section View**

I-580 NB

(R9)

APPENDIX 8.1:

**OFF-SITE TRAFFIC NOISE CONTOUR WORKSHEETS** 



	FH\	WA-RD-77-10	B HIGH	WAY NO	DISE PF	REDICTION		ΞL			
	p: Existing					Project Na			ls		
	e: Tracy Boul					Job Num	ber: 85	59			
Road Segmen	t: South of Li	nne Rd									
	SPECIFIC IN	NPUT DATA							INPUTS	5	
Highway Data				S	te Con	ditions (H	ard = 1	0, Soft	= 15)		
Average Daily	Traffic (Adt):	1,000 vehicle	es				AL	itos:	15		
Peak Hour I	Percentage:	10%			Me	dium Truck	is (2 Ax	les):	15		
Peak He	our Volume:	100 vehicle	es		He	avy Trucks	(3+ Ax	les):	15		
Vel	nicle Speed:	55 mph		V	ehicle I	Nix					
Near/Far Lar	e Distance:	48 feet		-		cleType	D	av E	vening	Night	Daily
Site Data						Aut	os: 7	7.5%	12.9%	9.6%	
Bar	rier Height:	0.0 feet			Me	edium Truc	ks: 84	1.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa		0.0			ŀ	leavy Truc	ks: 80	6.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		N	oise Sc	urce Elev	ations	in feet	t)		
Centerline Dist. t		100.0 feet				Autos:	0.00		/		
Barrier Distance t		0.0 feet			Mediur	n Trucks:	2.29	7			
Observer Height (/	,	5.0 feet			Heav	v Trucks:	8.00	6 G	rade Adji	ustment	: 0.0
	d Elevation:	0.0 feet									
	d Elevation:	0.0 feet		Li	ane Equ	uivalent Di			et)		
F	Road Grade:	0.0%				Autos:	97.20	-			
	Left View:	-90.0 degre				n Trucks:	97.11	-			
	Right View:	90.0 degre	es		Heav	y Trucks:	97.12	4			
FHWA Noise Mode	l Calculation										
VehicleType	REMEL	Traffic Flow		ance	Finite		Fresnei		arrier Atte		m Atten
Autos:	71.78			-4.43		-1.20		.77	0.0		0.00
Medium Trucks:	82.40			-4.43		-1.20		.88	0.0		0.000
Heavy Trucks:	86.40			-4.43		-1.20	-5	.16	0.0	00	0.00
Unmitigated Noise					<u> </u>					-	
,,	Leq Peak Hou		-	Leq Eve	~	Leq Nig		L	dn		NEL
Autos: Medium Trucks:		3.3 3.7	51.4 45.2		49.7 38.8		43.6 37.3		52.2 45.8		52. 46.
		5.7 5.8	45.2 45.3		38.8		37.3 37.5		45.8 45.9		
Heavy Trucks: Vehicle Noise:		5.8 1.9	45.3 53.1		36.3		37.5 45.3		45.9		46. 54.
					50.2		45.3		53.9		54.
Centerline Distanc	e to Noise C	ontour (in fee	t)	70 dE	BA	65 dB	A	60	dBA	55	dBA
			Ldn:	8		18			19		84
		C	NEL:	9		19			2		90
		-	-	-							

	FHW	A-RD-77-108 H	IIGH\	WAY N	OISE PR	EDICTIC	N MOI	DEL						
Scenario: Exist Road Name: Trac Road Segment: Nortl	y Boule			Project Name: Tracy Hills Job Number: 8559										
SITE SPECI	FIC IN	PUT DATA				NC	ISE N	IODE	L INPUT	S				
Highway Data				S	Site Conditions (Hard = 10, Soft = 15)									
Average Daily Traffic (	Adt): 13	3,600 vehicles					A	Autos:	15					
Peak Hour Percent	age:	10%			Med	lium Truc	ks (2 A	xles):	15					
Peak Hour Volu		1,360 vehicles			Hea	vy Truck	s (3+ A	xles):	15					
Vehicle Sp		55 mph		١	/ehicle M	lix								
Near/Far Lane Dista	nce:	48 feet			Vehic	leType		Day	Evening	Night	Daily			
Site Data						Au	tos:	77.5%	12.9%	9.6%	97.42			
Barrier He	iaht:	0.0 feet			Me	dium Tru	cks: I	84.8%	4.9%	10.3%	1.849			
Barrier Type (0-Wall, 1-Be	•	0.0			H	eavy Tru	cks: I	86.5%	2.7%	10.8%	0.749			
Centerline Dist. to Ba	rrier:	100.0 feet			loise So	urce Ele	ations	in fa	oot)					
Centerline Dist. to Obse	rver:	100.0 feet			10/30 001	Autos:	0.0							
Barrier Distance to Obse	rver:	0.0 feet			Medium	Trucks:	2.2							
Observer Height (Above F		5.0 feet				Trucks:	8.0		Grade Ad	justment	0.0			
Pad Eleva		0.0 feet		-						,				
Road Eleva		0.0 feet		L	ane Equ				feet)					
Road Gr		0.0%				Autos:	97.2							
Left V		-90.0 degrees				Trucks: Trucks:	97.1 97.1							
Right \	new:	90.0 degrees	5		neavy	TTUCKS.	97.1	24						
FHWA Noise Model Calcu	lations													
VehicleType REM	EL	Traffic Flow	Dist	ance	Finite F	Road	Fresn	el	Barrier Att	ten Ber	m Atter			
Autos:	71.78	-1.49		-4.43		-1.20		4.77		000	0.00			
Medium Trucks:	82.40	-18.73		-4.43		-1.20		4.88		000	0.00			
Heavy Trucks:	86.40	-22.68		-4.43	3	-1.20		-5.16	0.0	000	0.00			
Unmitigated Noise Levels	s (witho	ut Topo and b	arrie	r atteni	uation)									
VehicleType Leq Pe				Leq Ev		Leq N	•		Ldn		VEL			
Autos:	64.7		2.8		61.0		54.9		63.6		64			
Medium Trucks:	58.1		6.5		50.2		48.6		57.		57			
Heavy Trucks:	58.1	-	6.7		47.6		48.9		57.2		57			
Vehicle Noise:	66.2		4.5		61.5		56.6		65.2	2	65			
Centerline Distance to No	oise Col	ntour (in feet)	-	70 -	04	05 -11			0.404		-10.4			
		,	dn:	70 d 48		65 dE		C	0 dBA 222		dBA 79			
									444		13			

FHWA-RD-77-108 HIG	HWAY NO	DISE PR	EDICTIO	N MODEL			
Scenario: Existing			Project Na	ame: Tracy	Hills		
Road Name: Tracy Boulevard			Job Nun	nber: 8559			
Road Segment: Btwn Linne Rd and Valpico Rd							
SITE SPECIFIC INPUT DATA					EL INPUTS	5	
Highway Data	S	ite Cond	litions (H	ard = 10, S	Soft = 15)		
Average Daily Traffic (Adt): 8,730 vehicles				Autos	: 15		
Peak Hour Percentage: 10%		Mea	lium Truck	(s (2 Axles)	: 15		
Peak Hour Volume: 873 vehicles		Hea	vy Trucks	: (3+ Axles)	: 15		
Vehicle Speed: 55 mph	V	ehicle N	lix				
Near/Far Lane Distance: 48 feet	-		leType	Day	Evening	Night	Daily
Site Data			Aut	os: 77.5%	% 12.9%	9.6% 9	97.429
Barrier Height: 0.0 feet		Me	dium Truc	ks: 84.89	% 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		н	eavy Truc	ks: 86.5%	% 2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 100.0 feet	N	oise So	urce Elev	ations (in	feet)		
Centerline Dist. to Observer: 100.0 feet		0130 001	Autos:	0.000			
Barrier Distance to Observer: 0.0 feet		Modium	Trucks:	2.297			
Observer Height (Above Pad): 5.0 feet			Trucks:	8.006	Grade Adj	ustment <sup>.</sup> (	0
Pad Elevation: 0.0 feet		Tieavy	muchs.	0.000	Grado / laj	dourionit. (	
Road Elevation: 0.0 feet	Li	ane Equ	ivalent D	istance (in	feet)		
Road Grade: 0.0%			Autos:	97.206			
Left View: -90.0 degrees		Medium	Trucks:	97.115			
Right View: 90.0 degrees		Heavy	Trucks:	97.124			
FHWA Noise Model Calculations	1						
VehicleType REMEL Traffic Flow Di	istance	Finite F	Road	Fresnel	Barrier Atte	en Berm	Atten
Autos: 71.78 -3.41	-4.43		-1.20	-4.77			0.00
Medium Trucks: 82.40 -20.65	-4.43		-1.20	-4.88			0.000
Heavy Trucks: 86.40 -24.61	-4.43		-1.20	-5.16	0.0	00	0.00
Unmitigated Noise Levels (without Topo and barr	ier attenu	ation)					
VehicleType Leq Peak Hour Leq Day	Leq Eve		Leq Ni	,	Ldn	CNE	
Autos: 62.7 60.8		59.1		53.0	61.6		62.
Medium Trucks: 56.1 54.6		48.3		46.7	55.2		55.
Heavy Trucks: 56.2 54.7		45.7		47.0	55.3		55.
Vehicle Noise: 64.3 62.6		59.6		54.7	63.3	3	63.
Centerline Distance to Noise Contour (in feet)				i.			-
	70 dE		65 dB	A	60 dBA	55 dl	
Ldn: CNFL :	36 38		77 83		165 178	356	-

FHWA-RD-77-108 HIGH	Y NOISE PREDICTION	MODEL	
Scenario: Existing Road Name: Corral Hollow Road Road Segment: Btwn I-580 EB Ramps and I-580	Job Numi	me: Tracy Hills ber: 8559	
SITE SPECIFIC INPUT DATA	NOI	SE MODEL INPUT	S
Highway Data	Site Conditions (Ha	rd = 10, Soft = 15)	
Average Daily Traffic (Adt): 5,430 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 543 vehicles	Medium Trucks Heavy Trucks		
Vehicle Speed: 55 mph	Vehicle Mix		
Near/Far Lane Distance: 48 feet	VehicleType	Day Evening	Night Daily
Site Data	Auto		9.6% 97.42%
Barrier Height: 0.0 feet	Medium Truck		10.3% 1.84%
Barrier Type (0-Wall, 1-Berm): 0.0	Heavy Truck	s: 86.5% 2.7%	10.8% 0.74%
Centerline Dist, to Barrier: 100.0 feet	Noise Course Flour	dia	
Centerline Dist. to Observer: 100.0 feet	Noise Source Eleva		
Barrier Distance to Observer: 0.0 feet	Autos:	0.000	
Observer Height (Above Pad): 5.0 feet	Medium Trucks: Heavy Trucks:		justment: 0.0
Pad Elevation: 0.0 feet	neavy mucks.	8.006 Grade Ad	Justinent. 0.0
Road Elevation: 0.0 feet	Lane Equivalent Dis	stance (in feet)	
Road Grade: 0.0%	Autos:	97.206	
Left View: -90.0 degrees	Medium Trucks:	97.115	
Right View: 90.0 degrees	Heavy Trucks:	97.124	
FHWA Noise Model Calculations			
VehicleType REMEL Traffic Flow Dis	ce Finite Road F	resnel Barrier At	ten Berm Atten
Autos: 71.78 -5.47	4.43 -1.20	-4.77 0.0	0.00
Medium Trucks: 82.40 -22.71	4.43 -1.20	-4.88 0.0	0.00
Heavy Trucks: 86.40 -26.67	4.43 -1.20	-5.16 0.0	0.00
Unmitigated Noise Levels (without Topo and barrie	ttenuation)		
VehicleType Leq Peak Hour Leq Day	q Evening Leq Nig		CNEL
Autos: 60.7 58.8	57.0	51.0 59.	
Medium Trucks: 54.1 52.6	46.2	44.6 53.	
Heavy Trucks: 54.1 52.7	43.6	44.9 53.2	
Vehicle Noise: 62.3 60.5	57.5	52.7 61.3	2 61.
Centerline Distance to Noise Contour (in feet)			
	70 dBA 65 dBA	60 dBA	55 dBA
Ldn:	26 56	120	260

Wednesday, November 13, 2013

Wednesday, November 13, 2013

	FHW	/A-RD-77-108	HIGH	WAY N	IOISE PI	REDICTI	ON MOI	DEL			
	c: Existing						Name: 1		Hills		
	e: Corral Hollo					Job N	umber: 8	3559			
Road Segmen	t: Btwn I-580	WB Ramps ar	nd Spir	ne Rd							
SITE S	PECIFIC IN	PUT DATA				N	OISE N	IODE	L INPUT	5	
Highway Data				5	Site Cor	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	raffic (Adt):	6,330 vehicle	s					Autos:	15		
Peak Hour I	Percentage:	10%			Me	dium Tru	icks (2 A	xles):	15		
Peak Ho	our Volume:	633 vehicle	s		He	avy Truc	:ks (3+ A	xles):	15		
Vel	icle Speed:	55 mph			Vehicle	Mix					
Near/Far Lar	e Distance:	48 feet		Ľ		icleType		Dav	Evening	Night	Dailv
Site Data								77.5%	•	9.6%	
Par	rier Heiaht:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	
Barrier Type (0-Wa	all, 1-Berm):	0.0			I	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		1	Voise Se	ource El	evations	s (in fe	et)		
Centerline Dist. t		100.0 feet				Autos	s: 0.0	000	1		
Barrier Distance t		0.0 feet			Mediu	m Trucks	: 2.2	97			
Observer Height (/	,	5.0 feet			Heav	v Trucks	s: 8.0	006	Grade Adj	ustment	: 0.0
	d Elevation:	0.0 feet		H							
	d Elevation:	0.0 feet		1	ane Eq	uivalent			leet)		
F	load Grade:	0.0%				Autos					
	Left View:	-90.0 degre				m Trucks					
	Right View:	90.0 degre	es		Heav	/y Trucks	s: 97.1	124			
FHWA Noise Mode					T						
VehicleType	REMEL	Traffic Flow	Dis	tance		Road	Fresn		Barrier Atte		rm Atter
Autos:	71.78	-4.81		-4.43	-	-1.20		-4.77	0.0		0.00
Medium Trucks:	82.40	-22.05		-4.43	-	-1.20		4.88	0.0		0.00
Heavy Trucks:	86.40	-26.00		-4.43	-	-1.20		-5.16	0.0	00	0.00
Unmitigated Noise VehicleType	Levels (with Leg Peak Hou			Leg Ev		Log	Night		l dn	0	NEL
Autos	Ley Peak Hou 61.		59.4	LEYEN	57.7	Ley	51.6	I	<u>Lun</u> 60.2		60
Medium Trucks:	54.	-	53.2		46.9		45.3		53.8		54
Heavy Trucks:	54.		53.3		44.3		45.6		53.9		54
Vehicle Noise:	62.	-	61.2		58.2		53.3		61.9		62.
Centerline Distanc	e to Noise Co	ntour (in fee	)								
				70 c	1BA	65	dBA	6	0 dBA	55	dBA
			Ldn:	29	-	6	-		133	-	288
			NFI :	31		6			144		309

	FHV	VA-RD-77-108	HIGH	IWAY N	IOISE PR	EDICT		DEL			
	io: Existing						Name:		Hills		
	e: Corral Hollo					Job N	lumber:	8559			
Road Segme	nt: Btwn N. Tra	acy Hills Rd an	d Linr	ne Rd							
	SPECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				5	Site Con	ditions	(Hard =	= 10, S	oft = 15)		
Average Daily	Traffic (Adt):	6,330 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Med	dium Tr	ucks (2	Axles):	15		
Peak H	lour Volume:	633 vehicle	s		Hea	avy Tru	cks (3+	Axles):	15		
Ve	hicle Speed:	55 mph		1	Vehicle N	Nix					
Near/Far La	ne Distance:	48 feet		F		cleType	,	Day	Evening	Night	Dailv
Site Data							Autos:	77.5%			97.42
Ba	rrier Height:	0.0 feet			Me	dium T	rucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-W	•	0.0			h	leavy T	rucks:	86.5%	2.7%	10.8%	0.749
Centerline Di	. ,	100.0 feet									
Centerline Dist.		100.0 feet		1	Voise So				eet)		
Barrier Distance		0.0 feet				Auto		.000			
Observer Height	Above Pad):	5.0 feet			Mediun			.297			
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8	.006	Grade Ad	justment.	0.0
Ro	ad Elevation:	0.0 feet		1	Lane Equ	iivalen	t Distar	nce (in	feet)		
	Road Grade:	0.0%				Auto	s: 97	.206			
	Left View:	-90.0 degre	es		Mediun	n Truck	s: 97	.115			
	Right View:	90.0 degre	es		Heav	y Truck	s: 97	.124			
FHWA Noise Mod	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fres	nel	Barrier Att	en Ber	m Atter
Autos:	71.78	-4.81		-4.43	3	-1.20		-4.77	0.0	000	0.00
Medium Trucks:	82.40	-22.05		-4.43	3	-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	86.40	-26.00		-4.43	3	-1.20		-5.16	0.0	000	0.00
Unmitigated Nois	e Levels (with	out Topo and	barri	er atten	uation)						
VehicleType	Leq Peak Hou			Leq E	<u> </u>	Leq	Night		Ldn		VEL
Autos:	61		59.4		57.7		51.		60.2		60.
Medium Trucks:	54		53.2		46.9		45.		53.8		54.
Heavy Trucks:	54	-	53.3		44.3		45.	•	53.9		54
Vehicle Noise:	62		61.2		58.2		53.	3	61.9	Э	62
Centerline Distan	ce to Noise Co	ontour (in feet	!)	70 c		67	dBA		60 dBA	57	dBA
			Ldn:	29			aBA 62		133		<i>dBA</i> 88
			NFL:	23			52 57		133		88 09

	FHW	/A-RD-77-108 H	IGHWA	T NOISE P	REDICTIC	N MODE	35			
	io: Existing					<i>lame:</i> Tr				
	ne: Corral Hollo				Job Nu	mber: 85	59			
Road Segme	nt: Btwn Spine	Rd and N. Tracy	Hills R	d						
SITE Highway Data	SPECIFIC IN	PUT DATA		Site Co	NC nditions (I					
* /				Sile CO	iuilions (i		15, 3011 = 1	,		
Average Daily	. ,	6,330 vehicles			edium Truc					
	Percentage: lour Volume:	10% 633 vehicles			eaun Truck	,	· ·			
	hicle Speed:	55 mph		п	eavy much	IS (3+ AX	ies). 15	)		
				Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		Vei	nicleType	D	ay Eve	ning N	light E	Daily
Site Data					AL	utos: 77	7.5% 12	.9%	9.6% 97	7.42%
Ba	rrier Height:	0.0 feet		N	ledium Tru	icks: 84	1.8% 4	.9% 1	0.3% 1	1.84%
Barrier Type (0-W		0.0			Heavy Tru	icks: 86	6.5% 2	.7% 1	0.8% 0	0.74%
Centerline Di	st. to Barrier:	100.0 feet		Noise S	ource Ele	vations	(in foot)			
Centerline Dist.	to Observer:	100.0 feet		Noise a	Autos:					
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks:		-			
Observer Height (	(Above Pad):	5.0 feet			vy Trucks:			le Adius	tment: 0.	0
Pa	ad Elevation:	0.0 feet			,		-	io / lajuo		
Ro	ad Elevation:	0.0 feet		Lane Ed	uivalent l	Distance	(in feet)			
	Road Grade:	0.0%			Autos:		-			
	Left View:	-90.0 degrees		Mediu	ım Trucks:	97.11	5			
	Right View:	90.0 degrees		Hea	vy Trucks:	97.12	4			
FHWA Noise Mod										-
VehicleType	REMEL	Traffic Flow	Distanc		e Road	Fresnel		er Atten	Berm A	
Autos:	71.78	-4.81		4.43	-1.20		.77	0.000		0.000
Medium Trucks:		-22.05		4.43	-1.20		.88	0.000		0.00
Heavy Trucks:		-26.00		4.43	-1.20	-5	. 16	0.000		0.00
Unmitigated Nois										
VehicleType	Leq Peak Hou			q Evening	Leq N	•	Ldn		CNEL	
Autos: Medium Trucks:	61.			57.7		51.6		60.2 53.8		60. 54.
				46.9		45.3				
Heavy Trucks:	54.			44.3		45.6		53.9		54.0
Vehicle Noise:			.2	58.2	<u> </u>	53.3		61.9		62.
Centerline Distan	ce to Noise Co	ntour (in feet)		70 -10 4	05.		00.10		FF ./P	
		La		70 dBA 29	65 di 62		60 dB. 133	4	55 dB. 288	А
		CNF		29 31	67		144		309	

	FHV	VA-RD-77-108	HIGHW	ay no	DISE PF	REDICTI		EL			
Road Nam	io: Existing e: Corral Hollo nt: Btwn Linne		o Rd				Name: Tr umber: 85				
SITE	SPECIFIC IN	PUT DATA					OISE MO				
Highway Data				Si	ite Con	ditions	(Hard = 1	0, Soft = 1	15)		
Average Daily	Traffic (Adt):	5,330 vehicle	s				AL	itos: 15	;		
Peak Hour	Percentage:	10%			Me	dium Tru	ıcks (2 Ax	les): 15	;		
Peak H	our Volume:	533 vehicle	s		He	avy Truc	cks (3+ Ax	<i>les):</i> 15	;		
Ve	hicle Speed:	55 mph		V	ehicle I	Mix					
Near/Far La	ne Distance:	48 feet		-		icleType		ay Ever	nina I	Night	Daily
Site Data									.9%	•	97.42%
Bai	rier Height:	0.0 feet			Me	edium Tr	ucks: 84	1.8% 4	.9%	10.3%	1.84%
Barrier Type (0-W		0.0			ŀ	leavy Tr	ucks: 8	6.5% 2	.7%	10.8%	0.74%
Centerline Dis	. ,	100.0 feet		AL	alaa Ce	uree El	evations	(in feet)			
Centerline Dist.	to Observer:	100.0 feet		/14	use sc			· · · ·			
Barrier Distance	to Observer:	0.0 feet			Ma dia	Autos					
Observer Height (	Above Pad):	5.0 feet				n Trucks			lo Adius	stment:	0.0
Pa	ad Elevation:	0.0 feet			neav	y Trucks	s. 0.00	0 0/20	ic Aujuc	sunon.	0.0
Roa	ad Elevation:	0.0 feet		La	ane Eq	uivalent	Distance	(in feet)			
1	Road Grade:	0.0%				Autos	s: 97.20	6			
	Left View:	-90.0 degre	es		Mediur	n Trucks	s: 97.11	5			
	Right View:	90.0 degre	es		Heav	y Truck	s: 97.12	4			
FHWA Noise Mode	el Calculation:	5									
VehicleType	REMEL	Traffic Flow	Distar	се	Finite	Road	Fresne	Barrie	er Atter	n Berr	n Atten
Autos:	71.78	-5.56		-4.43		-1.20	-4	.77	0.00	0	0.000
Medium Trucks:	82.40	-22.79		-4.43		-1.20	-4	.88	0.00	0	0.000
Heavy Trucks:	86.40	-26.75		-4.43		-1.20	-5	. 16	0.00	0	0.000
,											
Unmitigated Noise	e Levels (with	out Topo and	barrier a	attenu	ation)						
VehicleType	Leq Peak Hou	r Leq Day	' L	<b>attenu</b> eq Eve	ening	Leq	Night	Ldn		Cl	IEL
VehicleType Autos:	Leq Peak Hou 60.	r Leq Day 6	, L 58.7		ening 56.9	Leq	50.9	Ldn	59.5	CI	60.1
VehicleType Autos: Medium Trucks:	Leq Peak Hou 60. 54.	r Leq Day 6 .0	, L 58.7 52.5		ening 56.9 46.1	Leq	50.9 44.6	Ldn	53.0	CN	60.1 53.3
VehicleType Autos: Medium Trucks: Heavy Trucks:	Leq Peak Hou 60 54 54	r Leq Day 6 0 0	58.7 52.5 52.6		ening 56.9 46.1 43.6	Leq	50.9 44.6 44.8	Ldn	53.0 53.2	CN	60.1 53.3 53.3
VehicleType Autos: Medium Trucks:	Leq Peak Hou 60. 54.	r Leq Day 6 0 0	, L 58.7 52.5		ening 56.9 46.1	Leq	50.9 44.6	Ldn	53.0	Ch	60.1 53.3 53.3
VehicleType Autos: Medium Trucks: Heavy Trucks:	Leq Peak Hou 60. 54. 54. 62	r Leq Day 6 0 2	258.7 52.5 52.6 60.4	eq Eve	ening 56.9 46.1 43.6 57.5		50.9 44.6 44.8 52.6		53.0 53.2 61.1		60.1 53.3 53.3 61.6
VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	Leq Peak Hou 60. 54. 54. 62	r Leq Day 6 0 0 2 2 mtour (in feet	/ L0 58.7 52.5 52.6 60.4	eq Eve 70 dE	ening 56.9 46.1 43.6 57.5	65	50.9 44.6 44.8 52.6	60 dB	53.0 53.2 61.1	55	60.1 53.3 53.3 61.6 dBA
VehicleType Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	Leq Peak Hou 60. 54. 54. 62	r Leq Day 6 0 0 2 nntour (in feet	258.7 52.5 52.6 60.4	eq Eve	ening 56.9 46.1 43.6 57.5 BA	65	50.9 44.6 44.8 52.6		53.0 53.2 61.1	55	60.1 53.3 53.3 61.6

Wednesday, November 13, 2013

Wednesday, November 13, 2013

	FHW	/A-RD-77-108	HIGHW	AY NO	DISE PI	REDICTI	ON MOI	DEL			
Scenario	p: Existing					Project	Name: -	Fracy I	Hills		
Road Name	e: Corral Hollo	w Road				Job N	umber: 8	3559			
Road Segmen	t: Btwn Valpic	o Rd and Sch	ulte Rd								
	PECIFIC IN	PUT DATA							L INPUT	5	
Highway Data				S	ite Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily 7	Traffic (Adt):	9,925 vehicle	s					Autos:	15		
Peak Hour F	Percentage:	10%			Me	dium Tru	icks (2 A	xles):	15		
Peak Ho	our Volume:	993 vehicle	s		He	avy Truc	:ks (3+ A	xles):	15		
Veh	nicle Speed:	55 mph		V	ehicle	Mix					
Near/Far Lan	e Distance:	48 feet		-		icleType		Day	Evening	Night	Daily
Site Data						A	utos:	77.5%	12.9%	9.6%	97.42
Bari	rier Heiaht:	0.0 feet			M	edium Tr	ucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		N	oise So	ource El	evation	s (in fe	et)		
Centerline Dist. t		100.0 feet				Autos	s: 0.0	000			
Barrier Distance to		0.0 feet			Mediu	m Trucks	: 2.2	97			
Observer Height (A	,	5.0 feet			Heav	v Trucks	s: 8.0	006	Grade Adj	ustmen	t: 0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		L	ane Eq	uivalent			leet)		
R	Road Grade:	0.0%				Autos					
	Left View:	-90.0 degre				m Trucks					
	Right View:	90.0 degre	es		Heav	/y Trucks	s: 97.1	124			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dista			Road	Fresn		Barrier Atte		rm Atten
Autos:	71.78	-2.86		-4.43		-1.20		-4.77	0.0		0.00
Medium Trucks:	82.40	-20.09		-4.43		-1.20		4.88	0.0		0.00
Heavy Trucks:	86.40	-24.05		-4.43		-1.20		-5.16	0.0	00	0.00
Unmitigated Noise VehicleType						1	linder t		l dn		NEL
Autos:	Leq Peak Hou		61.4	eq Eve	59.6	Leq	53.6		Lan 62.2		NEL 62.
Autos: Medium Trucks:	63. 56.		61.4 55.2		59.6 48.8		53.6 47.3		55.7		62. 56
Heavy Trucks:	56.		55.2 55.3		48.8		47.3		55.9		56.
Vehicle Noise:	56. 64.	-	55.3 63.1		46.3		47.5		55.5 63.8		56. 64
venicie ivolse.					00.2		55.5		03.0	,	04.
Oranta dina Dia i		ntour (in feet	)								
Centerline Distanc	e to Noise Co			70 dł	BA	65	:IBA	6	0 dBA	55	dBA
Centerline Distanc	e to Noise Co		Ldn:	70 dł 39		65 ( 8		6	0 dBA 180		6 <i>dBA</i> 388

Sconor	io: Existing					Project	Name: Tra	cy Hills		
	ie: Lammers R	heo					umber: 855			
		o Rd and Old S	chulte	Rd		00074	umber. 000	5		
SITE	SPECIFIC IN	PUT DATA				N	OISE MO	DEL INPUT	s	
Highway Data				s	ite Con			Soft = 15)	-	
Average Daily	Traffic (Adt):	5,600 vehicles					Aut	os: 15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 Axle	s): 15		
Peak H	lour Volume:	560 vehicles			He	avy Truc	cks (3+ Axle	es): 15		
Ve	hicle Speed:	55 mph		V	/ehicle l	Niv				
Near/Far La	ne Distance:	48 feet				icleType	Da	v Evening	Niaht	Daily
Site Data					VCIII			5% 12.9%	9.6%	
	rrier Heiaht:	0.0 feet			Me	edium Tr		8% 4.9%	10.3%	
Barrier Type (0-W		0.0			F	leavy Tr	ucks: 86	5% 2.7%	10.8%	0.749
Centerline Di	. ,	100.0 feet		-						
Centerline Dist.		100.0 feet		N	loise Sc		evations (i	,		
Barrier Distance		0.0 feet				Autos				
Observer Height (		5.0 feet				n Trucks				
	ad Flevation:	0.0 feet			Heav	y Trucks	s: 8.006	Grade Ad	iustment	: 0.0
	ad Elevation:	0.0 feet		L	ane Eq	uivalent	Distance	(in feet)		
	Road Grade:	0.0%				Auto		,		
	Left View:	-90.0 degrees			Mediur	n Truck				
	Right View:	90.0 degrees			Heav	y Trucks	s: 97.124			
FHWA Noise Mod	ol Calculation									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresnel	Barrier Att	en Be	rm Atten
Autos:	71.78	-5.34		-4.43		-1.20	-4.		000	0.00
Medium Trucks:	82.40	-22.58		-4.43		-1.20	-4.		000	0.00
Heavy Trucks:	86.40	-26.53		-4.43		-1.20	-5.	16 0.0	000	0.00
Unmitigated Noise	e Levels (with	out Topo and b	arrier	attenu	uation)					
VehicleType	Leq Peak Hou	r Leq Day	L	eq Ev	ening	Leq	Night	Ldn	С	NEL
Autos:	60.	8 5	8.9		57.1		51.1	59.7	7	60.
Medium Trucks:	54.	2 5	2.7		46.3		44.8	53.2	2	53.
Heavy Trucks:	54.	2 5	2.8		43.8		45.0	53.4	1	53.
Vehicle Noise:	62.	4 6	0.6		57.7		52.8	61.3	3	61.
Centerline Distan	ce to Noise Co	ntour (in feet)								
				70 di			dBA	60 dBA		dBA
		-	dn:	26		-	7	123	-	265
			FL:	29			1	132		285

	FHV	VA-RD-77-108	HIGHWA	Y NOISE P	REDICT	ION MODEL		
	o: Existing					Name: Tracy	Hills	
	e: Corral Hollo				Job N	lumber: 8559		
Road Segmer	nt: North of Sc	nuite Ra						
	SPECIFIC IN	IPUT DATA				IOISE MODE		
Highway Data				Site Cor	nditions	(Hard = 10, S	oft = 15)	
Average Daily	Traffic (Adt): 2	20,760 vehicles	3			Autos.		
	Percentage:	10%				ucks (2 Axles)		
	our Volume:	2,076 vehicles	6	He	eavy Tru	cks (3+ Axles)	15	
	hicle Speed:	55 mph		Vehicle	Mix			
Near/Far La	ne Distance:	48 feet		Veł	icleType	e Day	Evening	Night Daily
Site Data						Autos: 77.5%	6 12.9%	9.6% 97.42%
Bai	rier Heiaht:	0.0 feet		M	edium T	rucks: 84.8%	4.9%	10.3% 1.84%
Barrier Type (0-W		0.0			Heavy T	rucks: 86.5%	s 2.7%	10.8% 0.74%
Centerline Dis	st. to Barrier:	100.0 feet		Noiso S	ourco E	levations (in f	(oot)	
Centerline Dist.	to Observer:	100.0 feet		NUISE 3	Auto		eel)	
Barrier Distance	to Observer:	0.0 feet		Modiu	m Truck			
Observer Height (	Above Pad):	5.0 feet			/v Truck	0	Grade Adiu	stment: 0.0
	ad Elevation:	0.0 feet					,	
	ad Elevation:	0.0 feet		Lane Eq		t Distance (in	feet)	
I	Road Grade:	0.0%			Auto			
	Left View:	-90.0 degree			m Truck			
	Right View:	90.0 degree	es	Hea	vy Truck	s: 97.124		
FHWA Noise Mode	el Calculation	-						
VehicleType	REMEL	Traffic Flow	Distan		Road	Fresnel	Barrier Atter	
Autos:	71.78	0.35		4.43	-1.20	-4.77	0.00	
Medium Trucks:	82.40	-16.89		4.43	-1.20	-4.88	0.00	
Heavy Trucks:	86.40	-20.84	-	4.43	-1.20	-5.16	0.00	0 0.00
Unmitigated Noise			-	,				
VehicleType	Leq Peak Hou	, ,		q Evening		Night	Ldn	CNEL
Autos:	66		64.6	62.8		56.8	65.4	66.
Medium Trucks:	59		58.4	52.0		50.5	58.9	59.
Heavy Trucks:	59		58.5	49.5		50.7	59.1	59.
Vehicle Noise:	68	.1	66.3	63.4		58.5	67.0	67.
Centerline Distand	e to Noise Co	ontour (in feet						
				70 dBA		-	60 dBA	55 dBA
			Ldn: IFI :	63 68		37 47	295 317	635 683

	FHWA-R	D-77-108 HI	GHWAY	NOISE PI	REDICTIO	N MODEL			
Scenario: Exis	ting				Project N	ame: Trac	y Hills		
Road Name: Lam	mers Road				Job Nur	nber: 8559			
Road Segment: Btwr	n Old Schulte	e Rd and Ele	venth St						
SITE SPECI	FIC INPUT	DATA					EL INPUT	S	
Highway Data				Site Cor	ditions (F	lard = 10, 3	Soft = 15)		
Average Daily Traffic (	Adt): 5,60	0 vehicles				Auto			
Peak Hour Percen	tage: 1	0%				ks (2 Axles			
Peak Hour Vol	ume: 56	0 vehicles		He	avy Truck	s (3+ Axles	): 15		
Vehicle Sp	eed: 5	5 mph		Vehicle	Mix				
Near/Far Lane Dista	ance: 4	8 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data					Au	tos: 77.5	% 12.9%	9.6%	97.42%
Barrier He	iaht <sup>.</sup> 0	.0 feet		М	edium Tru	cks: 84.8	% 4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-B		.0			Heavy Tru	cks: 86.5	% 2.7%	10.8%	0.74%
Centerline Dist. to Ba	nrrier: 100	.0 feet		Noise S	ource Elev	vations (in	feet)		
Centerline Dist. to Obse		.0 feet			Autos:	0.000	,		
Barrier Distance to Obse		.0 feet		Mediu	m Trucks:	2.297			
Observer Height (Above I	, .	.0 feet			v Trucks:	8.006	Grade Ad	iustment:	0.0
Pad Eleva		.0 feet							
Road Eleva		0.0 feet		Lane Eq		Distance (ii	1 feet)		
Road G		.0%			Autos:	97.206			
Left		0.0 degrees			m Trucks:	97.115			
Right	view: 90	.0 degrees		Heav	ry Trucks:	97.124			
FHWA Noise Model Calco									
VehicleType REN			Distance		Road	Fresnel	Barrier Att		m Atten
Autos:	71.78	-5.34	-4.4		-1.20	-4.7		000	0.000
Medium Trucks:	82.40	-22.58	-4.4		-1.20	-4.8		000	0.000
Heavy Trucks:	86.40	-26.53	-4.4		-1.20	-5.10	5 0.0	000	0.000
Unmitigated Noise Level									
VehicleType Leq Pe	ak Hour	Leq Day		Evening	Leq N	v	Ldn		VEL
710100.	60.8	58.	-	57.1 46.3		51.1 44.8	59.7		60.3
Medium Trucks:	54.2 54.2	52. 52.				44.8 45.0	53.2 53.4		53.5
Heavy Trucks: Vehicle Noise:	54.2 62.4	52. 60.1	-	43.8		45.0	53.4 61.3		53.5 61.8
			D	57.7		52.8	61.3	>	61.0
Centerline Distance to No	oise Contou	ır (in feet)	70	-10.4	05 -1	24	00-104		-10.4
		L de		dBA	65 dE	5/4	60 dBA		dBA
		Ldr	E 1	26	57		123	20	65
		CNFI		29	61		132	~	85

Wednesday, November 13, 2013

Wednesday, November 13, 2013

	FH\	VA-RD-77-108	HIGHV	VAY NO	DISE PR	EDICTIO	N MOD	EL			
Scenario:	Existing					Project Na	ame: T	racy H	lills		
Road Name:						Job Nun	nber: 8	559			
Road Segment:	North of Ele	eventh St									
	PECIFIC IN	IPUT DATA							INPUTS	3	
Highway Data				S	te Con	ditions (H	ard = 1	10, So	ft = 15)		
Average Daily Tr	raffic (Adt):	3,990 vehicle	s				A	utos:	15		
Peak Hour P	ercentage:	10%			Med	lium Truck	(2 A	xles):	15		
Peak Hou	ur Volume:	399 vehicle	s		Hea	avy Trucks	(3+ A	xles):	15		
Vehi	cle Speed:	55 mph		V	ehicle I	lix					
Near/Far Lane	e Distance:	36 feet				cleType	1	Dav	Evening	Night	Daily
Site Data						Aut		7.5%	12.9%	9.6%	
Barri	er Height:	0.0 feet			Me	dium Truc	ks: 8	34.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wal		0.0			H	leavy Truc	ks: 8	86.5%	2.7%	10.8%	0.74%
Centerline Dist.		100.0 feet		N	oise So	urce Elev	ations	(in fe	et)		
Centerline Dist. to	Observer:	100.0 feet				Autos:	0.0		. ,		
Barrier Distance to	Observer:	0.0 feet			Mediur	n Trucks:	2.2				
Observer Height (Al	bove Pad):	5.0 feet			Heav	v Trucks:	8.0	06	Grade Adj	ustment	: 0.0
	Elevation:	0.0 feet									
	Elevation:	0.0 feet		Li	ane Equ	ivalent D			eet)		
Ro	oad Grade:	0.0%				Autos:	98.4	- ·			
	Left View:	-90.0 degre				n Trucks:	98.4				
F	Right View:	90.0 degre	es		Heav	y Trucks:	98.4	13			
FHWA Noise Model	Calculation	s									
VehicleType	REMEL	Traffic Flow	Dista	nce	Finite	Road	Fresne		Barrier Atte	en Ber	m Atten
Autos:	71.78	-6.81		-4.52		-1.20	-	4.77	0.0	00	0.00
Medium Trucks:	82.40	-24.05		-4.51		-1.20		4.88	0.0		0.000
Heavy Trucks:	86.40	-28.01		-4.51		-1.20	-	5.16	0.0	00	0.000
Unmitigated Noise					<u> </u>						
<i>,</i> ,	eq Peak Hou			Leq Eve	· ·	Leq Ni	,		Ldn		NEL
Autos:	59		57.3		55.6		49.5		58.2		58.8
Medium Trucks:	52		51.1		44.8		43.2		51.7		51.9
Heavy Trucks:	52		51.3		42.2		43.5		51.8		51.
Vehicle Noise:	60		59.1		56.1		51.2		59.8		60.3
Centerline Distance	to Noise Co	ontour (in fee	:)	70 dE	RA	65 dB	4	RI	) dBA	55	dBA
			Ldn:	21	<i></i>	45		00	97		209
		C	NFL:	22		48			104		24
		U	****	22		40				2	

	FHW	/A-RD-77-108 H	IIGHV	VAY N	OISE PR	EDICTIC	ON MO	DEL			
Scenario: Existi						Project N			Hills		
Road Name: Linne Road Segment: East		v Blvd				Job Nu	mber: 1	3559			
SITE SPECIF		,				NC	DISE	IODE		s	
Highway Data				S	Site Cond	ditions (I				-	
Average Daily Traffic (A	Adt):	3,680 vehicles						Autos:	15		
Peak Hour Percent	age:	10%			Med	dium Truc	:ks (2 A	(xles):	15		
Peak Hour Volu	me:	368 vehicles			Hea	avy Truck	is (3+ A	(xles):	15		
Vehicle Spe		55 mph		V	ehicle N	lix					
Near/Far Lane Dista	nce:	48 feet		F		cleType		Day	Evening	Night	Daily
Site Data								77.5%	v		97.42
Barrier Hei	aht.	0.0 feet			Me	dium Tru	cks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wall, 1-Be		0.0			н	leavy Tru	cks:	86.5%	2.7%	10.8%	0.74
Centerline Dist. to Bar		100.0 feet			loiso Sa	urce Ele	vation	c (in f	0.0.1		
Centerline Dist. to Obser	ver:	100.0 feet		,	ioise 30	Autos:		000	eel)		
Barrier Distance to Obser	ver:	0.0 feet			Modium	n Trucks:		297			
Observer Height (Above P	ad):	5.0 feet				v Trucks:		006	Grade Ad	iustment	. 0.0
Pad Eleva	tion:	0.0 feet								Juounom	. 0.0
Road Eleva		0.0 feet		L	ane Equ	ivalent l			feet)		
Road Gr		0.0%				Autos:					
Left V		-90.0 degrees				n Trucks:					
Right V	iew:	90.0 degrees			Heavy	y Trucks:	97.	124			
FHWA Noise Model Calcu	lations										
VehicleType REM		Traffic Flow	Dista		Finite I		Fresn		Barrier Att		m Atte
	71.78	-7.16		-4.43		-1.20		-4.77		000	0.0
	82.40	-24.40		-4.43		-1.20		-4.88		000	0.0
Heavy Trucks:	86.40	-28.36		-4.43		-1.20		-5.16	0.0	000	0.0
Unmitigated Noise Levels			-								
VehicleType Leq Pea				Leq Ev		Leq N	<u> </u>		Ldn		NEL
Autos:	59.		7.1		55.3		49.3		57.9		58
Medium Trucks:	52. 52.		).9		44.5 42.0		43.0		51.4		51
Heavy Trucks: Vehicle Noise:	52. 60.		1.0 3.8		42.0		43.2 51.0		51.6 59.5		51 60
			5.8		55.8		51.0		59.	0	60
Centerline Distance to No	ise Co	ntour (in feet)	1	70 d	RΔ	65 d	RA	6	60 dBA	55	dBA
		1.	dn:	20		43			93		200
			=[:	22		46			100		215

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL Scenario: Existing Road Name: Linne Road Project Name: Tracy Hills Job Number: 8559 Road Segment: Btwn Corral Hollow Rd and Tracy Blvd SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15) Highway Data Average Daily Traffic (Adt): 3,915 vehicles Autos: 15 Peak Hour Percentage: 10% Medium Trucks (2 Axles): 15 Peak Hour Volume: 392 vehicles Heavy Trucks (3+ Axles): 15 55 mph Vehicle Speed: Vehicle Mix Near/Far Lane Distance: 48 feet Day Evening Night Daily VehicleType Site Data Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Barrier Height: Barrier Type (0-Wall, 1-Berm): 0.0 feet Heavy Trucks: 86.5% 2.7% 10.8% 0.74% 0.0 Centerline Dist. to Barrier: Centerline Dist. to Observer: 100.0 feet Noise Source Elevations (in feet) 100.0 feet Autos: 0.000 Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297 Observer Height (Above Pad): 5.0 feet Grade Adjustment: 0.0 Heavy Trucks: 8.006 Pad Elevation: 0.0 feet Lane Equivalent Distance (in feet) Road Elevation: 0.0 feet Road Grade: Autos: 97.206 0.0% Medium Trucks: 97.115 Left View: -90.0 degrees Right View: Heavy Trucks: 97.124 90.0 degrees FHWA Noise Model Calculations MEL Traffic Flow Distance Finite Road
71.78 -6 90 VehicleType REMEL Autos: 71. Fresnel Barrier Atten Berm Atten -4.77 0.000 0.000 -1.20 Medium Trucks: 82.40 -24.13 -4.43 -4.88 0.000 0.000 Heavy Trucks: 86.40 -28.09 -4.43 -1.20 -5.16 0.000 0.000 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour CNEL Leq Day Leq Evening Leq Night 57.4 55.6 49 Ldn 58.2 Autos 59.3 49.5 58.8 Medium Trucks: 51.1 44.8 43.2 51.7 52.6 51.9 Heavy Trucks: 52.7 51.3 42.2 43.5 51.8 52.0 Vehicle Noise: 60.8 59.1 56.1 51.2 59.8 60.3 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 21 45 97 209 CNEL: 22 48 104 225

	FHW	A-RD-77-108	HIGHW/	AY NOIS	SE PR	EDICTIO	ON MOD	EL			
Scenario:	Existing					Project I	Vame: T	racy I	Hills		
Road Name:	Valpico Roa	d				Job Nu	mber: 8	559			
Road Segment:	Btwn Lamm	ers Rd and Co	orral Hollo	w Rd							
SITE SI	PECIFIC INI	PUT DATA							L INPUTS	;	
Highway Data				Site	Cond	ditions (	Hard = 1	10, Sc	oft = 15)		
Average Daily Tr	raffic (Adt):	4,480 vehicle	5				A	utos:	15		
Peak Hour P	ercentage:	10%			Med	dium Tru	cks (2 A)	kles):	15		
Peak Ho	ur Volume:	448 vehicle	5		Hea	avy Truci	ks (3+ A)	kles):	15		
Vehi	cle Speed:	55 mph		Veh	icle N	Nix					
Near/Far Lane	e Distance:	48 feet		ven		cleType	1	Day	Evening	Night	Daily
Site Data								7.5%	•	9.6%	
Parri	ier Heiaht:	0.0 feet			Me	dium Tru	icks: 8	4.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wal		0.0			н	leavy Tru	icks: 8	6.5%	2.7%	10.8%	0.74%
Centerline Dist.		100.0 feet		Noi		urce Ele	votiono	lin fe	no.41		
Centerline Dist. to	Observer:	100.0 feet		NOI	se so				eet)		
Barrier Distance to	Observer:	0.0 feet				Autos					
Observer Height (A	bove Pad):	5.0 feet				n Trucks			Grade Adjı	olmoni	
Pad	Elevation:	0.0 feet			Heavy	y Trucks	: 8.00	06	Grade Adju	Isunem	. 0.0
Road	Elevation:	0.0 feet		Lan	e Equ	ivalent	Distance	e (in i	feet)		
Ro	oad Grade:	0.0%				Autos.	97.2	06			
	Left View:	-90.0 degree	es	M	lediun	n Trucks	97.1	15			
F	Right View:	90.0 degree	es		Heavy	y Trucks	97.1	24			
FHWA Noise Model	Calculations	;									
VehicleType	REMEL	Traffic Flow	Distan	ce F	inite l	Road	Fresne	e/	Barrier Atte	n Bei	m Atten
Autos:	71.78	-6.31		4.43		-1.20		4.77	0.00	00	0.000
Medium Trucks:	82.40	-23.55		4.43		-1.20		4.88	0.00	00	0.000
Heavy Trucks:	86.40	-27.50		4.43		-1.20	-	5.16	0.00	00	0.000
Unmitigated Noise	Levels (witho	out Topo and	barrier a	ttenuat	ion)						
VehicleType L	eq Peak Hour	r Leq Day	Le	eq Eveni	ing	Leq N	light		Ldn	С	NEL
Autos:	59.8	-	57.9		56.2		50.1		58.7		59.3
Medium Trucks:	53.2	2	51.7		45.4		43.8		52.3		52.5
			51.8		42.8		44.1		52.4		52.5
Heavy Trucks:	53.3	3	51.8								
	53.5 61.4	-	51.8 59.7		56.7		51.8		60.4		60.9
Heavy Trucks:	61.4	4	59.7								
Heavy Trucks: Vehicle Noise:	61.4	4 ntour (in feet	59.7	70 dBA		65 d	BA	6	60 dBA	55	dBA
Heavy Trucks: Vehicle Noise:	61.4	4 ntour (in feet	59.7			65 d 49	BA )	6		55	60.9 dBA 228 246

Wednesday, November 13, 2013

Wednesday, November 13, 2013

			NOISE PI	LEDIOTIO					
Scenario: Existing				Project Na	me: ٦	racy ⊦	lills		
Road Name: Valpico Road				Job Num	ber: 8	559			
Road Segment: Btwn Corral Hollow	VRd and Tra	cy Blvd							
SITE SPECIFIC INPUT	DATA						INPUT:	5	
Highway Data			Site Cor	ditions (H	ard =	10, So	ft = 15)		
Average Daily Traffic (Adt): 8,475	vehicles				A	Autos:	15		
Peak Hour Percentage: 10%	6		Me	dium Truck	's (2 A	xles):	15		
Peak Hour Volume: 848	vehicles		He	avy Trucks	(3+ A	xles):	15		
Vehicle Speed: 55	mph	-	Vehicle	Mix					
Near/Far Lane Distance: 48	feet	-		icleType		Dav	Evening	Night	Daily
Site Data				Aut	os: 1	77.5%	12.9%	9.6%	
Barrier Height: 0.0	feet		М	edium Truc	ks: 1	34.8%	4.9%	10.3%	1.849
Barrier Type (0-Wall, 1-Berm): 0.0			I	Heavy Truc	ks: 1	36.5%	2.7%	10.8%	0.749
Centerline Dist. to Barrier: 100.0	feet		Noise Se	ource Elev	ations	; (in fe	et)		
Centerline Dist. to Observer: 100.0				Autos:	0.0		.,		
	feet		Mediu	m Trucks:	2.2	97			
	feet		Heav	v Trucks:	8.0	06	Grade Adj	ustment	: 0.0
	feet	_							
	feet	_	Lane Eq	uivalent Di			eet)		
Road Grade: 0.0				Autos:	97.2				
	degrees			m Trucks:	97.1				
Right View: 90.0	degrees		Heav	/y Trucks:	97.1	24			
FHWA Noise Model Calculations									
VehicleType REMEL Traffic		stance			Fresn		Barrier Atte		m Atter
Autos: 71.78	-3.54	-4.4	-	-1.20		4.77	0.0		0.00
	-20.78	-4.4	-	-1.20		4.88	0.0		0.00
	-24.74	-4.4	-	-1.20		-5.16	0.0	00	0.00
Unmitigated Noise Levels (without Top									
	eq Day	Leq E	vening	Leq Nig			Ldn		NEL
Autos: 62.6	60.7		58.9		52.9		61.5		62
Medium Trucks: 56.0	54.5		48.1		46.6		55.0		55
Heavy Trucks: 56.0	54.6		45.6		46.8		55.2		55.
Vehicle Noise: 64.2	62.4		59.5		54.6		63.1		63.
Centerline Distance to Noise Contour	(in feet)	70	dBA	65 dB	Δ	6	0 dBA	55	dBA
	Ldn:		35	05 UL	-		162		49
	CNFL:		38	81			174		945 176
	ONLL.			01					

	FHW	A-RD-77-108	HIGH	IWAY NO	DISE PR	EDICTI	ом мо	DEL			
Scenario:	Existing Plu	s Project				Project I	Name:	Tracy	Hills		
Road Name:	Tracy Boule	vard				Job NL	imber:	8559			
Road Segment: \$	South of Lin	ne Rd									
	ECIFIC IN	PUT DATA							L INPUT	S	
Highway Data				S	ite Conc	litions (	Hard =	10, So	oft = 15)		
Average Daily Trai	ffic (Adt):	1,070 vehicle	5					Autos:	15		
Peak Hour Per	centage:	10%			Med	lium Tru	cks (2 A	Axles):	15		
Peak Hour	Volume:	107 vehicle	5		Hea	vy Truc	ks (3+ A	(xles)	15		
Vehicle	e Speed:	55 mph		V	ehicle M	liv					
Near/Far Lane L	Distance:	48 feet		-		leType		Dav	Evening	Night	Dailv
Site Data								77.5%			97.429
Parrio	r Height:	0.0 feet			Me	dium Tru	ucks:	84.8%	4.9%	10.3%	1.849
Barrier Type (0-Wall,		0.0 1001			н	eavy Tru	ucks:	86.5%	2.7%	10.8%	0.749
Centerline Dist. to		100.0 feet				,					
Centerline Dist. to C		100.0 feet		N	oise So				et)		
Barrier Distance to C		0.0 feet				Autos		000			
Observer Height (Abo		5.0 feet			Medium			297			
	levation:	0.0 feet			Heavy	Trucks	: 8.0	006	Grade Ad	ustment.	0.0
Road E	levation:	0.0 feet		Li	ane Equ	ivalent	Distan	ce (in i	feet)		
Roa	d Grade:	0.0%				Autos	: 97.:	206			
L	eft View:	-90.0 degree	es		Medium	Trucks	: 97.	115			
Rig	ght View:	90.0 degree	es		Heavy	r Trucks	: 97.	124			
FHWA Noise Model C	alculations	;		-							
VehicleType I	REMEL	Traffic Flow	Dis	stance	Finite F	Road	Fresr	el	Barrier Att	en Ber	m Atter
Autos:	71.78	-12.53		-4.43		-1.20		-4.77	0.0	000	0.00
Medium Trucks:	82.40	-29.77		-4.43		-1.20		-4.88	0.0	000	0.00
Heavy Trucks:	86.40	-33.72		-4.43		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise Le											
,,	q Peak Hou			Leq Eve	· ·	Leq I	·		Ldn		VEL
Autos:	53.		51.7		50.0		43.9		52.5		53.
Medium Trucks:	47.	-	45.5		39.1		37.6		46.		46.
Heavy Trucks:	47.	-	45.6		36.6		37.8		46.2		46.
Vehicle Noise:	55.	-	53.4		50.5		45.6	6	54.2	2	54.
Centerline Distance to	o Noise Co	ntour (in feet	)	70 dE	24	65 0	IRΔ	6	0 dBA	55	dBA
			Ldn:	9	<i>2</i> /1	19			41		и <i>БА</i> 38
			VFI :	9		20	-		44		95

FI	IWA-RD-77-108	HIGHWA	T NOISE P	REDICTIO	MODEL			
Scenario: Existing				Project N	<i>lame:</i> Trac	y Hills		
Road Name: Valpico R				Job Nur	nber: 8559	)		
Road Segment: East of T	racy Blvd							
SITE SPECIFIC	NPUT DATA		Site Co		ISE MOD	EL INPUTS	5	
	40.000	_	0/10 00/	iuluons (i	Auto	,		
Average Daily Traffic (Adt): Peak Hour Percentage:		s	14	dium Truc	ks (2 Axles			
Peak Hour Volume:		c			s (3+ Axles	/		
Vehicle Speed:	55 mph	5			5 (37 AXIES	9. 15		
Near/Far Lane Distance:	48 feet		Vehicle					
	40 1661		Veł	nicleType	Day		Night	Daily
Site Data					tos: 77.5		9.6%	
Barrier Height:	0.0 feet			ledium Tru			10.3%	1.849
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy Tru	cks: 86.5	% 2.7%	10.8%	0.74
Centerline Dist. to Barrier:	100.0 feet		Noise S	ource Elev	vations (in	foot)		
Centerline Dist. to Observer:	100.0 feet		10130 0	Autos:	0.000	1001)		
Barrier Distance to Observer:	0.0 feet		Modiu	m Trucks:	2.297			
Observer Height (Above Pad):	5.0 feet			vv Trucks:	8.006	Grade Adj	ustment <sup>.</sup>	0.0
Pad Elevation:	0.0 feet		Tiea	vy mucks.	0.000	endde maj	douriont.	0.0
Road Elevation:	0.0 feet		Lane Eq	uivalent L	Distance (i	n feet)		
Road Grade:	0.0%			Autos:	97.206			
Left View:	-90.0 degre	es	Mediu	m Trucks:	97.115			
Right View:	90.0 degre	es	Hea	vy Trucks:	97.124			
FHWA Noise Model Calculatio			1					
VehicleType REMEL	Traffic Flow	Distan		Road	Fresnel	Barrier Atte		n Atter
Autos: 71.7			4.43	-1.20	-4.7			0.00
Medium Trucks: 82.4			4.43	-1.20	-4.8			0.00
Heavy Trucks: 86.4			4.43	-1.20	-5.1	6 0.0	00	0.00
Unmitigated Noise Levels (wi VehicleType Leg Peak H			ttenuation) q Evening	Leg N	iaht	Ldn	Ch	IEL
,, ,		62.3	60.6	,	54.5	63.1		63
Medium Trucks:	57.6	56.1	49.8		48.2	56.7		56
Heavy Trucks:	57.7	56.2	47.2		48.4	56.8	3	56
Vehicle Noise:	65.8	64.0	61.1		56.2	64.8	1	65
Centerline Distance to Noise	Contour (in feet	)						
			70 dBA	65 dE	BA	60 dBA	55	dBA
		Ldn:	45	97		208	4	48

	FHW	/A-RD-77-108	HIGH	WAY N	IOISE PI	REDICTI	ON MOD	DEL			
Road Nam	io: Existing Plus ne: Tracy Boule nt: Btwn Linne I	vard	o Rd				Name: T umber: 8		lills		
SITE	SPECIFIC IN	PUT DATA				N	OISE M	ODE		3	
Highway Data					Site Con	nditions	(Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt): 1	0,200 vehicle	s				A	lutos:	15		
Peak Hour	Percentage:	10%				dium Tru			15		
Peak H	lour Volume:	1,020 vehicle	s		He	avy Truc	:ks (3+ A	xles):	15		
Ve	hicle Speed:	55 mph			Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		-		icleType		Day	Evening	Night	Daily
Site Data								77.5%	12.9%	9.6%	
Ba	rrier Heiaht:	0.0 feet			M	edium Tr	ucks: 8	34.8%	4.9%	10.3%	1.84%
Barrier Type (0-W		0.0			1	Heavy Tr	ucks: 8	36.5%	2.7%	10.8%	0.74%
Centerline Di	. ,	100.0 feet		-	N-/ 0	ource El		1	- 41		
Centerline Dist.	to Observer:	100.0 feet		4	voise So				et)		
Barrier Distance	to Observer:	0.0 feet			1 de - 16 -	Autos m Trucks					
Observer Height	(Above Pad):	5.0 feet				m Trucks /y Trucks			Grade Adj	uctmont	
P	ad Elevation:	0.0 feet			neav	/y TTUCKS	s. 0.0	00	Orade Haj	usunone	0.0
Ro	ad Elevation:	0.0 feet		1	Lane Eq	uivalent	Distanc	e (in f	eet)		
	Road Grade:	0.0%				Autos		06			
	Left View:	-90.0 degree	es		Mediu	m Trucks	s: 97.1	15			
	Right View:	90.0 degree	es		Heav	/y Trucks	s: 97.1	24			
FHWA Noise Mod	el Calculations	;									
VehicleType	REMEL	Traffic Flow	Dist	tance	Finite	Road	Fresne	e/ I	Barrier Atte	en Ber	m Atten
Autos:	71.78	-2.74		-4.4	3	-1.20	-	4.77	0.0	00	0.000
Medium Trucks:		-19.97		-4.4		-1.20		4.88	0.0		0.000
Heavy Trucks:	86.40	-23.93		-4.4	3	-1.20	-	5.16	0.0	00	0.000
Unmitigated Nois	e Levels (witho	out Topo and	barrie	r atten	uation)						
VehicleType	Leq Peak Hour			Leq E	vening	,	Night		Ldn		NEL
Autos:	63.		61.5		59.7		53.7		62.3		62.9
Medium Trucks:	56.	-	55.3		48.9		47.4		55.8		56.1
Heavy Trucks:	56.		55.4		46.4		47.6		56.0		56.1
Vehicle Noise:			63.2		60.3		55.4		64.0		64.4
Centerline Distan	ce to Noise Co	ntour (in feet	)								
			L		dBA	65 (		6	0 dBA		dBA
			Ldn:	4	-	8			183		95
		CI	VEL:	4	3	9	2		197	4	25

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	FHV	VA-RD-77-108	HIGHW	AY NO	DISE PF	REDICTIO		EL			
Scenari	o: Existing Plu	is Project				Project Na	a <i>me:</i> Tr	acy ⊦	lills		
Road Nam	e: Tracy Boule	evard				Job Nun	nber: 85	59			
Road Segmer	nt: North of Va	lpico Rd									
	SPECIFIC IN	IPUT DATA								5	
Highway Data				S	ite Con	ditions (H	ard = 1	0, So	,		
Average Daily	, ,		s					itos:	15		
	Percentage:	10%				dium Truci		,	15		
Peak H	our Volume:	1,442 vehicle	s		He	avy Trucks	s (3+ Ax	les):	15		
	hicle Speed:	55 mph		V	ehicle I	Mix					
Near/Far Lai	ne Distance:	48 feet			Vehi	icleType	D	ay	Evening	Night	Daily
Site Data						Au	tos: 7	7.5%	12.9%	9.6%	97.429
Bar	rier Height:	0.0 feet			Me	edium Truc	ks: 84	4.8%	4.9%	10.3%	1.84%
Barrier Type (0-W	all, 1-Berm):	0.0			ŀ	leavy Truc	:ks: 80	6.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		N	oise Sc	ource Elev	ations	(in fe	et)		
Centerline Dist.		100.0 feet				Autos:	0.00	0			
Barrier Distance		0.0 feet			Mediur	m Trucks:	2.29	7			
Observer Height (	,	5.0 feet			Heav	v Trucks:	8.00	6	Grade Adj	ustment	: 0.0
	d Elevation:	0.0 feet		L.							
	d Elevation:	0.0 feet		L	ane Equ	uivalent D			eet)		
ŀ	Road Grade:	0.0%				Autos:	97.20	-			
	Left View:	-90.0 degre				m Trucks:	97.11	-			
	Right View:	90.0 degre	es		Heav	y Trucks:	97.12	4			
FHWA Noise Mode		-									
VehicleType	REMEL	Traffic Flow	Dista		Finite		Fresnel		Barrier Atte		rm Atten
Autos:	71.78	-1.23		-4.43		-1.20		1.77	0.0		0.00
Medium Trucks:	82.40	-18.47		-4.43		-1.20		1.88		00	0.00
Heavy Trucks:	86.40	-22.43		-4.43		-1.20	-5	5.16	0.0	00	0.00
Unmitigated Noise			1								
VehicleType Autos:	Leq Peak Hou 64		63.0	eq Eve	ening 61.2	Leq Ni	gnt 55.2		Ldn 63.8	-	NEL 64
	58		56.8		50.4		55.2 48.9		57.4		64. 57.
Medium Trucks:	58		56.8		50.4 47.9		48.9 49.1		57.4		57.
Heavy Trucks: Vehicle Noise:	58		56.9 64.7		47.9 61.8		49.1		57.5		57. 65.
			•		01.8		9.90		5.50	)	05.
Centerline Distance	e to Noise Co	ontour (in fee	<i>y</i>	70 dł	BA	65 dE	A	6	0 dBA	55	dBA
			Ldn:	50		107			231		198
		С	NEL:	54		115			249		536
		C	NEL:	54		115			249	Ę	536

Site Data         Autos:         77.5%         12.9%           Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%           Barrier Type (0-Wail, 1-Berm):         0.0         10.0         Heavy Trucks:         86.5%         2.7%           Centerline Dist. to Observer:         100.0 feet         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)           Denorm Hottly (University)         0.0 feet         Autos:         0.000           Barrier Distance to Observer:         0.0 feet         Autos:         0.000           Medium Trucks:         2.297         S0.0         Medium Trucks:         2.297	Night Dail 9.6% 97.42 10.3% 1.84 10.8% 0.74 ustment: 0.0
Road Segment: Btwn I-580 WB Ramps and Spine Rd           SITE SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Mighway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adl): 11,450 vehicles         Site Conditions (Hard = 10, Soft = 15)           Peak Hour Precentage:         10%         Autos: 15           Peak Hour Volume:         1,145 vehicles         Medium Trucks (2 Axles):         15           Vehicle Speed:         55 mph         Vehicle Speed:         55 mph           Near/Far Lane Distance:         48 feet         Vehicle Type         Day         Evening           Site Data         Autos::         77.5%         12.9%         Medium Trucks:         84.8%         4.9%           Barrier Type (0-Wall, 1-Barm):         0.0         Centerline Dist. to Doserver:         100.0 feet         Autos::         77.5%         12.9%           Barrier Type (0-Wall, 1-Barm):         0.0         Feet         Autos::         0.00         Medium Trucks::         84.8%         4.9%           Centerline Dist. to Dbserver:         0.0 feet         Autos::         0.00         Medium Trucks::         8.006         Grade Adju           Road Elevation:         0.0 feet         Autos::         97.206         M	Night Daily 9.6% 97.42 10.3% 1.84 10.8% 0.74
Site SPEcific INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt): 11,450 vehicles         Site Conditions (Hard = 10, Soft = 15)           Peak Hour Porcentage: 10%         Autos: 15           Peak Hour Porcentage: 10%         Medium Trucks (2 Akles): 15           Vehicle Speed: 55 mph         Medium Trucks (2 Akles): 15           Near/Far Lane Distance: 48 feet         Vehicle Type           Barrier Height: 0.0 feet         Autos: 77.5% 12.9%           Barrier Type (0-Wail, 1-Berm): 0.0         Oet           Centerline Dist. to Dbserver: 100.0 feet         Autos: 0.000           Barrier Joist no Boserver: 0.0 leet         Autos: 0.000           Road Elevation: 0.0 feet         Autos: 0.000           Road Elevation: 0.0 feet         Autos: 0.000           Road Grade: 0.0%         Left View: 90.0 degrees           Left View: 90.0 degrees         Medium Trucks: 2.297           Heavy Trucks: 97.115         Heavy Trucks: 97.124           FHMA Noise Model Calculations         Medium Trucks: 97.124           FHMA Noise Model Calculations         Distance         Finite Road           VehicleType         REMEL         Traffic Flow         Distance           VehicleType         71.78         -2.23	Night Daily 9.6% 97.42 10.3% 1.84 10.8% 0.74
Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt): 11,450 vehicles Peak Hour Volume: 11,45 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet         Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (2 Axles): 15           Site Data         Vehicle Type         Day         Evening           Barrier Height: Centerline Dist. to Diserver: Diserver Height (Above Pad): 5.0 feet Road Elevation: Left View: 90.0 degrees Right View: 90.0 degrees Right View: 90.0 degrees         Noise Source Elevations (in feet) Autos: 71.78         Lane Equivalent Distance (in feet) Autos: 97.206           Hewy Trucks: 84.5%         2.97         Heavy Trucks: 80.06         Grade Adju           Pad Elevation: Left View: 90.0 degrees Right View: 90.0 degrees         Medium Trucks: 97.115         Heavy Trucks: 97.124           FHWA Noise Model Calculations VehicleType         RELMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atte Autos: 71.78           VehicleType         71.78         -2.23         -4.43         -1.20         -4.77         0.00	Night Daily 9.6% 97.42 10.3% 1.84 10.8% 0.74
Average Daily Traffic (Adt): 11,450 vehicles     Autos: 15       Peak Hour Percentage:     10%       Peak Hour Volume:     1,145 vehicles       Vehicle Speed:     55 mph       Nean/Far Lane Distance:     48 feet       Site Data     Autos:: 77.5%       Barrier Height:     0.0 feet       Barrier Type (0-Wall, 1-Berm):     0.0       Centerline Dist. to Diserver:     100.0 feet       Barrier Jstance to Observer:     0.0 feet       Deserver Height (Above Pad):     5.0 feet       Pad Elevation:     0.0 feet       Road Elevation:     0.0 feet       Rad Elevation:     0.0 feet       Road Grade:     0.0%       Left View:     90.0 degrees       Right View:     90.0 degrees       Right View:     0.0 degrees       Right View:     0.0 degrees       Right View:     90.0 degrees       Right View:     17.18       VehicleType     REMEL       VehicleType     REMEL       VehicleType     REMEL       VehicleType     REMEL       Medium Trucks:     9.1.20       Heavy Trucks:     9.1.20	9.6% 97.42 10.3% 1.84 10.8% 0.74
Peak Hour Percentage:         10%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         1,145 vehicles         Heavy Trucks (3 Axles):         15           Vehicle Speed:         55 mph         Vehicle Mix         Vehicle Type         Day         Evening           Site Data         Vehicle Type         Day         Evening         Autos:         77.5%         12.9%           Barrier Type (Owall, 1-Berm):         0.0         Vehicle Speed         65.5%         2.7%           Centerline Dist. to Diserver:         100.0 feet         Autos:         0.00         Noise Source Elevations (in feet)           Diserver Height (Above Pad):         5.0 feet         Autos:         0.00         Medium Trucks:         8.2.97           Road Elevation:         0.0 feet         Autos:         0.00         Medium Trucks:         8.006         Grade Adju           Road Elevation:         0.0 feet         Late Equivalent Distance (in feet)         Late Equivalent Distance (in feet)           Road Elevation:         0.0 feet         Autos:         97.206         Heavy Trucks:         97.115           Heavy Trucks:         90.0 degrees         Heavy Trucks:         97.124         Heavy Trucks:         97.124	9.6% 97.42 10.3% 1.84 10.8% 0.74
Barrier Height: Vehicle Spreed:         1,145         vehicles Smph         Heavy Trucks (3+ Axles):         15           Vehicle Spreed:         55         mph           Near/Far Lane Distance:         48         feet         Vehicle Type         Day         Evening           Site Data           Meaning Type (0-Wall, 1-Berm):         0.0         teet         Noise Source Elevations (in feet)         2.7%           Centerline Dist. to Dbserver:         100.0         feet         Autos:         7.7%         2.9%           Barrier Jistance to Observer:         100.0         feet         Autos:         0.000           Barrier Distance to Observer:         100.0         feet         Autos:         0.000           Barrier Distance to Observer:         100.0         feet         Autos:         0.000           Barrier Distance to Observer:         0.0         feet         Autos:         9.0.000           Road Elevation:         0.0         feet         Autos:         97.105           Road Grade:         0.0%         Autos:         97.115         Heavy Trucks:         97.124           FHWA Noise Model Calculations           VehicleType         REtMEL         Traffic Flow         Dis	9.6% 97.42 10.3% 1.84 10.8% 0.74
Vehicle Speed:         55 mph Alson/Far Lane Distance:         Vehicle Type 48 feet         Vehicle Type Autos:         Tr.s% 77.5%         12.9%           Barrier Height:         0.0 feet         Autos:         77.5%         12.9%           Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%           Barrier Type (0-Wall, 1-Berm):         0.0 feet         Medium Trucks:         84.8%         4.9%           Centerline Dist. to Barrier:         100.0 feet         Mosies Source Elevations (in feet)         Autos:         0.000           Barrier Distance to Observer:         0.0 feet         Autos:         0.000         Medium Trucks:         84.8%         4.9%           Pad Elevation:         0.0 feet         Autos:         0.000         Medium Trucks:         84.8%         4.9%           Pad Elevation:         0.0 feet         Autos:         0.000         Medium Trucks:         84.9%         4.9%           Road Grade:         0.0%         Left Ivew:         90.0 degrees         Autos:         97.206           Heavy Trucks:         97.206         Medium Trucks:         97.115         Heavy Trucks:         97.124           FHWA Noise Model Calculations         Distance         Finite Road         Fresnel         Barrier Atter </td <td>9.6% 97.42 10.3% 1.84 10.8% 0.74</td>	9.6% 97.42 10.3% 1.84 10.8% 0.74
Near/Far Lane Distance:         48 feet         Vertice mix         Levening           Site Data         Verticel mix         Autos:         77.5%         12.9%           Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%           Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%           Centerline Dist. to Diserver:         100.0 feet         Noise Source Elevations (in feet)         Autos:         0.00           Barrier Distance to Observer:         100.0 feet         Medium Trucks:         2.297         Medium Trucks:         2.297           Observer Height (Above Pad)         5.0 feet         Medium Trucks:         2.297         Medium Trucks:         2.297           Pad Elevation:         0.0 feet         Medium Trucks:         8.006         Grade Adju           Road Grade:         0.0%         Left View:         90.0 degrees         Medium Trucks:         97.115           Heavy Trucks:         97.115         Heavy Trucks:         97.124         Heavy Trucks:         97.124           FHWA Noise Model Calculations         VenicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Attee           Autos:         71.78 <t< td=""><td>9.6% 97.42 10.3% 1.84 10.8% 0.74</td></t<>	9.6% 97.42 10.3% 1.84 10.8% 0.74
Site Data         Uniciti type         Day         Evening           Barrier Height:         0.0 feet         Matox:         77.5%         12.9%           Barrier Type (0-Wall, 1-Berrn):         0.0         feet         Medium Trucks:         84.8%         4.9%           Barrier Dist. to Barrier:         100.0 feet         Moise Source Elevations (in feet)         Noise Source Elevations (in feet)           Centerline Dist. to Observer:         0.0 feet         Moise Source Elevations (in feet)         Medium Trucks:         2.297           Observer Height (Above Pad):         5.0 feet         Heavy Trucks:         8.006         Grade Adju           Pad Elevation:         0.0 feet         Autos:         97.206         Autos:         97.206           Left View:         90.0 degrees         Medium Trucks:         97.115         Heavy Trucks:         97.124           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Attee           Medium Trucks:         82.40         -19.47         -4.43         -1.20         -4.78         0.00	9.6% 97.42 10.3% 1.84 10.8% 0.74
Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%           Barrier Type (0-Wall, 1-Berm):         0.0         100.0 feet         Heavy Trucks:         86.5%         2.7%           Centerline Dist. to Dbserver:         100.0 feet         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)           Barrier Type (0-Wall, 1-Berm):         0.0 feet         Autos:         0.000           Barrier Distance to Observer:         0.0 feet         Autos:         0.200           Barrier Distance to Observer:         0.0 feet         Autos:         2.297           Pad Elevation:         0.0 feet         Autos:         97.206           Right View:         90.0 degrees         Medium Trucks:         97.115           Heavy Trucks:         97.115         Heavy Trucks:         97.124           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fersnel         Barrier Attee           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00	10.3% 1.84 10.8% 0.74
Barrier Type (IV-Wall, 1-Bernier Type)     Out refer     Meany Trucks:     86.5%     2.7%       Barrier Type (IV-Wall, 1-Bernier):     0.00     feet     Noise Source Elevations (in feet)       Centerline Dist. to Observer:     100.0 feet     Autos:     0.000       Barrier Type (IV-Wall, 1-Bernier):     0.0 feet     Autos:     0.000       Barrier Type (IV-Wall, 1-Bernier):     0.0 feet     Autos:     0.000       Barrier Type (IV-Wall, 1-Bernier):     0.0 feet     Autos:     0.00       Road Grade:     0.0%     Autos:     97.206       Left Iview:     90.0 degrees     Medium Trucks:     97.115       FHWA Noise Model Calculations:     Distance     Finite Road     Fresnel       VehicleType     REIMEL Traffic Flow     Distance     Finite Road     Fersnel       Medium Trucks:     82.40     -19.47     -4.43     -1.20     -4.88	10.8% 0.74
Barrier Type (0-Wall, 1-Berm):         0.0         Heavy Trucks:         86.5%         2.7%           Centerline Dist. to Barrier:         100.0 feet         Noise Source Elevations (in feet)         Autos:         0.000           Barrier Distance to Observer:         0.0 feet         Autos:         0.000         Medium Trucks:         2.27%           Observer Height (Above Pad):         5.0 feet         Autos:         0.000         Medium Trucks:         2.297           Pad Elevation:         0.0 feet         Medium Trucks:         2.297         Heavy Trucks:         8.006         Grade Adju           Road Elevation:         0.0 feet         Left livew:         90.0 degrees         Autos:         97.206           Heavy Trucks:         97.00 degrees         Medium Trucks:         97.115         Heavy Trucks:         97.124           FHWA Noise Model Calculations         vehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fersnel         Barrier Atter           Autos:         71.78         -2.23         -4.43         -1.20         -4.88         0.00	
Centerline Dist. to Barrier:         100.0 feet         Noise Source Elevations (in feet)           Centerline Dist. to Observer:         100.0 feet         Autos:         0.000           Barrier Distance to Observer:         0.0 feet         Autos:         0.000           Doserver Height (Above Pad):         5.0 feet         Heavy Trucks:         2.297           Pad Elevation:         0.0 feet         Heavy Trucks:         8.006         Grade Adju           Road Grade:         0.0 feet         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)           Road Grade:         0.00 degrees         Medium Trucks:         97.115           Heavy Trucks:         97.00 degrees         Heavy Trucks:         97.124           FHWA Noise Model Calculations         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Attee           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00	istment: 0.0
Centerline Dist. to Observer:         100.0 feet         Autos:         0.000           Barrier Distance to Observer:         0.0 feet         Autos:         0.000           Observer Height (Above Pad):         5.0 feet         Medium Trucks:         2.297           Pad Elevation:         0.0 feet         Heavy Trucks:         8.006         Grade Adju           Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)           Road Calculation:         90.0 degrees         Medium Trucks:         97.115           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Attee           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00	ıstment: 0.0
Barrier Distance to Observer:     0.0 feet     Medium Trucks:     2.297       Observer Height (Above Pad):     5.0 feet     Heavy Trucks:     8.006     Grade Adju       Pad Elevation:     0.0 feet     Lett View:     90.0 feet     Latt View:     90.0 degrees       Right View:     90.0 degrees     Medium Trucks:     97.105     Heavy Trucks:     97.105       FHWA Noise Model Calculations:     VehicleType     REMEL     Traffic Flow     Distance     Finte Road     Fersnel     Barrier Attee       Autos:     71.78     -2.23     -4.43     -1.20     -4.77     0.00	ustment: 0.0
Observer Height (Above Pad):         5.0 feet         Heavy Trucks:         8.006         Grade Adju           Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)           Road Grade:         0.0%         Autos:         97.206           Left livew:         -90.0 degrees         Medium Trucks:         97.115           FHWA Noise Model Calculations:         -2.23         -4.43         -1.20         -4.77           VehicleType         REIMEL         Traffic Flow         Distance         Finite Road         Fersnel         Barrier Attee           Autos:         71.78         -2.23         -4.43         -1.20         -4.88         0.00	ustment: 0.0
Pad Elevation:         0.0 feet           Road Elevation:         0.0 feet           Road Grade:         0.0 feet           Left View:         -90.0 degrees           Right View:         90.0 degrees           Heavy Trucks:         97.206           Motise Model Calculations         Heavy Trucks:         97.115           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atte           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00	
Road Grade:         0.0%         Autos:         97.206           Left View:         -90.0 degrees         Medium Trucks:         97.115           Right View:         90.0 degrees         Heavy Trucks:         97.124           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atte           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00           Medium Trucks:         82.40         -19.47         -4.43         -1.20         -4.88         0.00	
Left View:         -90.0 degrees         Medium Trucks:         97.115           Right View:         90.0 degrees         Heavy Trucks:         97.124           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atter           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00           Medium Trucks:         82.40         -19.47         -4.43         -1.20         -4.88         0.00	
Fight View:         90.0 degrees         Heavy Trucks:         97.124           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Attee           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00           Medium Trucks:         82.40         -19.47         -4.43         -1.20         -4.88         0.00	
FHWA Noise Model Calculations           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atte           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00           Medium Trucks:         82.40         -19.47         -4.43         -1.20         -4.88         0.00	
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atte           Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00           Medium Trucks:         82.40         -19.47         -4.43         -1.20         -4.88         0.00	
Autos:         71.78         -2.23         -4.43         -1.20         -4.77         0.00           Medium Trucks:         82.40         -19.47         -4.43         -1.20         -4.88         0.00	
Medium Trucks: 82.40 -19.47 -4.43 -1.20 -4.88 0.00	n Berm Atte
Heavy Trucks: 86.40 -23.43 -4.43 -1.20 -5.16 0.00	
	0.0
Unmitigated Noise Levels (without Topo and barrier attenuation)	
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn	CNEL
Autos: 63.9 62.0 60.2 54.2 62.8	63
Medium Trucks: 57.3 55.8 49.4 47.9 56.3	56
Heavy Trucks: 57.3 55.9 46.9 48.1 56.5	
Vehicle Noise: 65.5 63.7 60.8 55.9 64.5	64
Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA	55 dBA
Ldn: 43 92 198	55 dBA 427
CNEL: 46 99 213	

FI	HWA-RI	D-77-108	HIG	HWAY I	NOISE PR	EDICTIO	N MO	DEL			
Scenario: Existing F Road Name: Corral Ho Road Segment: Btwn I-58	ollow Ro	ad	d I-58	0-WB F	tamps	Project Na Job Nun			Hills		
SITE SPECIFIC	INPUT	DATA							L INPUT	s	
Highway Data					Site Con	ditions (H		<u> </u>	,		
Average Daily Traffic (Adt):		) vehicle	S					Autos:	15		
Peak Hour Percentage:		)%				lium Truck	•				
Peak Hour Volume:		3 vehicle	s		Hea	avy Trucks	: (3+ /	Axles):	15		
Vehicle Speed:		5 mph		-	Vehicle I	lix					
Near/Far Lane Distance:	48	3 feet			Vehi	cleType		Day	Evening	Night	Daily
Site Data						Aut	os:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	· 0	0 feet			Me	dium Truc	ks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):					H	leavy Truc	ks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier.	: 100.	0 feet		F	Noise So	urce Elev	ation	s (in f	eet)		-
Centerline Dist. to Observer.	: 100.	0 feet		-		Autos:		000			
Barrier Distance to Observer:	: 0.	0 feet			Mediur	n Trucks:		297			
Observer Height (Above Pad):	5.	0 feet				v Trucks:		006	Grade Ad	liustmen	t: 0.0
Pad Elevation:		0 feet		_						·	
Road Elevation:		0 feet		_	Lane Equ	ivalent D			feet)		
Road Grade:		.0%				Autos:		206			
Left View:		0 degre				n Trucks:		115			
Right View:	90.	0 degre	es		Heav	y Trucks:	97.	124			
FHWA Noise Model Calculation											
VehicleType REMEL		ic Flow	Di	stance	Finite		Fresr	_	Barrier At		rm Atten
Autos: 71.7	-	-3.30		-4.4	-	-1.20		-4.77		000	0.000
Medium Trucks: 82.4		-20.54		-4.4	-	-1.20		-4.88		000	0.000
Heavy Trucks: 86.4		-24.49		-4.4	-	-1.20		-5.16	0.	000	0.000
Unmitigated Noise Levels (wi								1			
VehicleType Leq Peak H		Leq Day		Leq E	vening	Leq Ni	/		Ldn	-	NEL
	62.8 56.2		60.9 54.7		59.2 48.4		53.1 46.8		61. 55		62.4 55.1
										-	
	56.3		54.9		45.8		47.1		55.		55.
	64.4		62.7		59.7		54.8	3	63.	4	63.9
Centerline Distance to Noise	Contou	r (in feet	)	70	dBA	65 dB	4		SO dBA		5 dBA
			Ldn:		ава 86	65 dB 78	А		168		362
			VEL:	-	9	78 84			168		362 390

FI	IWA-RD-77-108	HIGHWA	Y NOISE I	PREDICTIO	N MODEL			
Scenario: Existing F Road Name: Corral Ho Road Segment: Btwn Spir	llow Road	cy Hills R	d		ame: Tracy nber: 8559	Hills		
SITE SPECIFIC	NPUT DATA		0/4- 0-				5	
Highway Data Average Daily Traffic (Adt):	16.220 vohiclos		Site Co	onditions (H	ard = 10, S Autos	,		-
Peak Hour Percentage:	10,330 Venicies		N	ledium Truci				
Peak Hour Volume:	1.633 vehicles			leavy Trucks	,			
Vehicle Speed:	55 mph		Vehicle	Mise	, ,			
Near/Far Lane Distance:	48 feet			hicleType	Day	Evening	Night	Daily
Site Data					os: 77.59	•	•	97.429
Barrier Height:	0.0 feet		1	Medium Truc			10.3%	1.849
Barrier Type (0-Wall, 1-Berm):	0.0			Heavy Truc	ks: 86.5	6 2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	100.0 feet		Noise S	Source Elev	ations (in	feet)		
Centerline Dist. to Observer:	100.0 feet			Autos:	0.000	000		
Barrier Distance to Observer:	0.0 feet		Medi	um Trucks:	2.297			
Observer Height (Above Pad):			Hea	avy Trucks:	8.006	Grade Adji	ustment:	0.0
Pad Elevation:	0.0 feet							
Road Elevation:	0.0 feet		Lane E	quivalent D		feet)		
Road Grade: Left View:	0.0%		Madi	Autos: um Trucks:	97.206 97.115			
Right View:	-90.0 degree 90.0 degree			avy Trucks:	97.115			
FHWA Noise Model Calculatio	ns							
VehicleType REMEL	Traffic Flow	Distan	ce Finit	e Road	Fresnel	Barrier Atte	en Berm	Atten
Autos: 71.7	8 -0.69	-	4.43	-1.20	-4.77	0.0	00	0.00
Medium Trucks: 82.4	0 -17.93		4.43	-1.20	-4.88	0.0	00	0.00
Heavy Trucks: 86.4	0 -21.89		4.43	-1.20	-5.16	0.0	00	0.00
Unmitigated Noise Levels (with							-	-
VehicleType Leq Peak H			q Evening	Leq Ni		Ldn	CNI	
		3.6 7.3	61. 51.	-	55.7 49.4	64.4 57.9		65.
		7.3 7.5	51. 48.	-	49.4 49.7	57.9		58. 58.
		67.5 65.3	40.		49.7 57.4	66.0		66.
Centerline Distance to Noise	Contour (in feet)		-					
	(		70 dBA	65 dE	A	60 dBA	55 d	BA
	L	dn:	54	117		251	54	1

Wednesday, November 13, 2013

Wednesday, November 13, 2013

	FHW	/A-RD-77-108	HIGHW	AY NC	DISE PI	REDICTIO	N MOE	DEL			
Scenario	o: Existing Plu	s Project				Project N	ame: T	racy I	Hills		
Road Name	e: Corral Hollo	w Road				Job Nur	nber: 8	559			
Road Segmen	t: Btwn N. Tra	cy Hills Rd an	d Linne R	d							
	SPECIFIC IN	PUT DATA							L INPUT	5	
Highway Data				Si	te Con	ditions (H	lard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 1	6,330 vehicle	s				A	utos:	15		
Peak Hour I	Percentage:	10%			Me	dium Truc	ks (2 A	xles):	15		
Peak Ho	our Volume:	1,633 vehicle	s		He	avy Truck	s (3+ A	xles):	15		
Vel	nicle Speed:	55 mph		V	ehicle	Mix					
Near/Far Lar	ne Distance:	48 feet				icleType	1	Dav	Evening	Night	Daily
Site Data								7.5%	•	9.6%	
Bar	rier Height:	0.0 feet			M	edium Tru	cks: 8	34.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wa	all, 1-Berm):	0.0			ŀ	Heavy Tru	cks: 8	36.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		N	oise So	ource Elev	ations	(in fe	et)		
Centerline Dist. t		100.0 feet				Autos:	0.0	00			
Barrier Distance t		0.0 feet			Mediu	m Trucks:	2.2	97			
Observer Height (/	,	5.0 feet			Heav	v Trucks:	8.0	06	Grade Adj	ustmen	t: 0.0
	d Elevation:	0.0 feet		-							
	d Elevation:	0.0 feet		Lá	ane Eq	uivalent L			eet)		
F	Road Grade:	0.0%				Autos:	97.2				
	Left View:	-90.0 degre				m Trucks:	97.1				
	Right View:	90.0 degre	es		Heav	y Trucks:	97.1	24			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Distan		Finite	Road	Fresne		Barrier Atte		rm Atten
Autos:	71.78	-0.69		-4.43		-1.20		4.77	0.0		0.00
Medium Trucks:	82.40	-17.93		-4.43		-1.20		4.88	0.0		0.00
Heavy Trucks:	86.40	-21.89		-4.43		-1.20	-	5.16	0.0	00	0.00
Unmitigated Noise VehicleType	Levels (with Leg Peak Hou			ttenu a Eve		Leq Ni	iaht		l dn		NFI
Autos	Ley Peak Hou 65.		63.6	Y EVE	61.8	Leq N	55.7		64.4	-	65.
Medium Trucks:	58.	-	57.3		51.0		49.4		57.9		58.
Heavy Trucks:	58.	-	57.5		48.4		49.7		58.0		58.
Vehicle Noise:	67.	*	65.3		62.3		57.4		66.0		66.
Centerline Distanc	e to Noise Co	ntour (in fee	)								
				70 dE	BA	65 dE	BA	6	0 dBA	55	i dBA
			I dn:	54		117			251	1	541
			NEL:	58		117			270		582

		/A-RD-77-108 H							
	io: Existing Plu					Name: Trac			
	e: Corral Hollo				Job Ni	Imber: 8559			
Road Segme	nt: Btwn Valpic	o Rd and Schult	e Rd						
	SPECIFIC IN	PUT DATA					EL INPUT	S	
Highway Data				Site Co	onditions	Hard = 10,	Soft = 15)		
Average Daily	Traffic (Adt): 1	3,945 vehicles				Auto	s: 15		
Peak Hour	Percentage:	10%		N	ledium Tru	cks (2 Axles	): 15		
Peak H	lour Volume:	1,395 vehicles		F	leavy Truc	ks (3+ Axles	): 15		
Ve	hicle Speed:	55 mph		Vehicle	Mix				
Near/Far La	ne Distance:	48 feet			hicleType	Day	Evening	Night	Daily
Site Data						utos: 77.5	•		97.42
		0.0 feet		_	Medium Tr			10.3%	
	rrier Height:	0.0 feet			Heavy Tr			10.8%	
Barrier Type (0-W Centerline Di		0.0 100.0 feet						. 0.070	0.74
Centerline Dist.		100.0 feet		Noise		evations (in	feet)		
Barrier Distance		0.0 feet			Autos				
Observer Height (		5.0 feet			um Trucks				
	ad Elevation:	0.0 feet		Hei	avy Trucks	8.006	Grade Ad	justment	: 0.0
	ad Elevation:	0.0 feet		Lane F	auivalent	Distance (i	n feet)		
	Road Grade:	0.0%		Lano	Autos		11000		
	Left View:	-90.0 degrees		Medi	um Trucks				
	Right View:	90.0 degrees			avy Trucks				
	rugni view.	50.0 degrees			ing maone				
FHWA Noise Mod	el Calculations								
VehicleType	REMEL	Traffic Flow	Distan	ce Finit	e Road	Fresnel	Barrier Att	en Ber	rm Atter
Autos:	71.78	-1.38		-4.43	-1.20	-4.7		000	0.00
Medium Trucks:	82.40	-18.62		-4.43	-1.20	-4.8		000	0.00
Heavy Trucks:	86.40	-22.57		-4.43	-1.20	-5.1	6 0.0	000	0.00
Unmitigated Noise	e Levels (witho	out Topo and b	arrier a	ttenuation	)				
VehicleType	Leq Peak Hou	r Leq Day	Le	q Evening	Leq I	Vight	Ldn	С	NEL
Autos:	64.	8 62	2.9	61.	1	55.0	63.	7	64
Medium Trucks:	58.	2 56	6.7	50.	3	48.7	57.2	2	57
Heavy Trucks:	58.	2 56	6.8	47.	7	49.0	57.3	3	57
Vehicle Noise:	66.	3 64	1.6	61.	6	56.8	65.3	3	65
Centerline Distan	ce to Noise Co	ntour (in feet)							
		,,		70 dBA	65 0	IBA	60 dBA	55	dBA
						1			
		Le	dn:	49	10	15	226	4	187

	FHV	VA-RD-77-108	HIGHW	AY NOI	SE PREDICT		EL					
	: Existing Plu : Corral Hollo : Btwn Linne	ow Road	o Rd			t Name: Ti Number: 85						
SITE S	PECIFIC IN	IPUT DATA		NOISE MODEL INPUTS								
Highway Data				Site	Conditions	; (Hard = 1	0, Soft = 15)					
Average Daily T Peak Hour P Peak Ho	, ,	10,895 vehicle 10% 1,090 vehicle				Aı rucks (2 Ax ıcks (3+ Ax						
Vehi	icle Speed:	55 mph		Vet	icle Mix							
Near/Far Lane	e Distance:	48 feet			VehicleTyp	e D	ay Evening	Night Daily				
Site Data					11		7.5% 12.9%	9.6% 97.42%				
Parr	ier Heiaht:	0.0 feet			Medium 1	rucks: 8	4.8% 4.9%	10.3% 1.84%				
Barrier Type (0-Wa		0.0			Heavy 1	rucks: 8	6.5% 2.7%	10.8% 0.74%				
Centerline Dist.		100.0 feet										
Centerline Dist. to		100.0 feet		Noi	se Source E		. ,					
Barrier Distance to	Observer:	0.0 feet			Auto							
Observer Height (A	bove Pad);	5.0 feet			ledium Truck							
<b>U</b> 1	Elevation:	0.0 feet			Heavy Truck	ks: 8.00	6 Grade Ad	ljustment: 0.0				
Road	d Elevation:	0.0 feet		Lan	e Equivaler	t Distance	e (in feet)					
Re	oad Grade:	0.0%			Auto	os: 97.20	)6					
	Left View:	-90.0 degre	es	٨	ledium Truck	ks: 97.11	5					
1	Right View:	90.0 degre	es		Heavy Truck	ks: 97.12	24					
FHWA Noise Model	Calculation	s										
VehicleType	REMEL	Traffic Flow	Distan	ce l	inite Road	Fresne	Barrier At	ten Berm Atten				
Autos:	71.78	-2.45		4.43	-1.20	-4	4.77 0.	0.00				
Medium Trucks:	82.40	-19.69		4.43	-1.20	-4	1.88 0.	000 0.00				
Heavy Trucks:	86.40	-23.64		4.43	-1.20	-8	5.16 0.	000 0.00				
Unmitigated Noise	Levels (with	out Topo and	barrier a	ttenuat	ion)							
11	eq Peak Hou			q Even	ing Leq	Night	Ldn	CNEL				
Autos:	63		61.8		60.0	54.0	62.					
Medium Trucks:	57		55.6		49.2	47.7	56.					
Heavy Trucks:	57		55.7		46.7	47.9	56.					
Vehicle Noise:	65	.3	63.5		60.6	55.7	64.	2 64.				
Centerline Distance	e to Noise Co	ontour (in feet	)									
				70 dBA	65	dBA	60 dBA	55 dBA				
			Ldn:	41		89	192	413				
		0	VFI:	44		96	206	444				

	FHW	/A-RD-77-108 HIG	HWAY N	IOISE PI	REDICTIC	N MODE	L	
	rio: Existing Plu ne: Corral Hollo					lame: Tra mber: 855		
	nt: North of Sch							
SITE	SPECIFIC IN	PUT DATA			NC	DISE MO	DEL INPUTS	;
Highway Data			:	Site Con	ditions (l	Hard = 10	, Soft = 15)	
Average Daily	Traffic (Adt): 2	4,360 vehicles				Aut	os: 15	
Peak Hour	Percentage:	10%		Me	dium Truc	ks (2 Axle	es): 15	
Peak H	lour Volume:	2,436 vehicles		He	avy Truck	s (3+ Axle	es): 15	
Ve	hicle Speed:	55 mph	h	Vehicle	Mix			
Near/Far La	ane Distance:	48 feet	H		icleType	Da	v Evening	Night Daily
Site Data							.5% 12.9%	9.6% 97.42%
Pa	rrier Heiaht:	0.0 feet		M	edium Tru	cks: 84	.8% 4.9%	10.3% 1.84%
Barrier Type (0-V		0.0		1	Heavy Tru	cks: 86	.5% 2.7%	10.8% 0.74%
<i>,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ist, to Barrier:	100.0 feet	-				(m. fm. m.t.)	
Centerline Dist.		100.0 feet	'	voise So	ource Ele		<i>,</i>	
Barrier Distance	to Observer:	0.0 feet			Autos:			
Observer Height	(Above Pad):	5.0 feet			m Trucks:			istment: 0.0
P	ad Elevation:	0.0 feet		Heav	ry Trucks:	8.006	Grade Adju	isuneni. 0.0
Road Elevation: 0.0 feet				Lane Eq	uivalent l	Distance	(in feet)	
	Road Grade:	0.0%			Autos:	97.206	6	
	Left View:	-90.0 degrees		Mediu	m Trucks:	97.115	5	
	Right View:	90.0 degrees		Heav	y Trucks:	97.124	1	
FHWA Noise Mod	lel Calculations	6						
VehicleType	REMEL	Traffic Flow D	istance	Finite	Road	Fresnel	Barrier Atte	n Berm Atten
Autos:	71.78	1.04	-4.43	3	-1.20	-4.	77 0.0	0.000
Medium Trucks:	82.40	-16.19	-4.43	3	-1.20	-4.	88 0.0	0.000
Heavy Trucks:	86.40	-20.15	-4.43	3	-1.20	-5.	16 0.0	0.00
		out Topo and barr		,				
VehicleType	Leq Peak Hou		Leq E		Leq N	•	Ldn	CNEL
Autos:	***			63.5		57.5	66.1	66.7
Medium Trucks:				52.7		51.2	59.6	
Heavy Trucks:				50.2		51.4	59.8	
Vehicle Noise:	68.	8 67.0		64.1		59.2	67.7	68.2
Centerline Distan	ce to Noise Co	ntour (in feet)						
			70 0		65 di		60 dBA	55 dBA
		Ldn: CNFL:		•	152 164	-	328 353	706 760

Wednesday, November 13, 2013

	FHW	/A-RD-77-108	HIGHW	AY NO	DISE PI	REDICTI	ON MOI	DEL			
Scenario	p: Existing Plu	s Project				Project	Name: -	Fracy H	Hills		
Road Name	e: Lammers R	oad				Job N	umber: 8	3559			
Road Segmen	t: Btwn Valpic	o Rd and Old	Schulte F	Rd							
	PECIFIC IN	PUT DATA							L INPUT	5	
Highway Data				S	ite Cor	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily 1	Traffic (Adt):	5,720 vehicle	s					Autos:	15		
Peak Hour F	Percentage:	10%			Me	dium Tru	icks (2 A	xles):	15		
Peak Ho	our Volume:	572 vehicle	s		He	avy Truc	:ks (3+ A	xles):	15		
Veh	nicle Speed:	55 mph		V	ehicle	Mix					
Near/Far Lan	e Distance:	48 feet				icleType		Day	Evening	Night	Daily
Site Data						A	Autos:	77.5%	12.9%	9.6%	97.429
Bari	rier Heiaht:	0.0 feet			М	edium Tr	ucks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa	all, 1-Berm):	0.0			1	Heavy Tr	ucks:	86.5%	2.7%	10.8%	0.749
Centerline Dis		100.0 feet		N	oise S	ource El	evation	s (in fe	et)		
Centerline Dist. t		100.0 feet				Autos	s: 0.0	000	1		
Barrier Distance t		0.0 feet			Mediu	m Trucks	s: 2.2	97			
Observer Height (A	,	5.0 feet			Heav	v Trucks	s: 8.0	006	Grade Adj	ustmen	: 0.0
	d Elevation:	0.0 feet									
	d Elevation:	0.0 feet		La	ane Eq	uivalent			leet)		
R	oad Grade:	0.0%				Autos					
	Left View:	-90.0 degre				m Trucks					
	Right View:	90.0 degre	es		Heav	y Trucks	s: 97.1	124			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Distar		Finite	Road	Fresn		Barrier Atte		rm Atter
Autos:	71.78	-5.25		-4.43		-1.20		-4.77	0.0		0.00
Medium Trucks:	82.40	-22.49		-4.43		-1.20		-4.88	0.0		0.00
Heavy Trucks:	86.40	-26.44		-4.43		-1.20		-5.16	0.0	00	0.00
Unmitigated Noise										-	
	Leq Peak Hou			eq Eve			Night		Ldn		NEL
Autos: Medium Trucks:	60. 54.	-	59.0 52.8		57.2 46.4		51.2 44.9		59.8 53.3		60.
Medium Trucks: Heavy Trucks:	• · ·	-									53
	54.	-	52.9		43.9		45.1		53.5		53 61
			60.7		57.8		52.9		61.4	ł	61
Vehicle Noise:	62.	-									
		-		70 dE	BA	65	dBA	6	0 dBA	55	dBA
Vehicle Noise:		-		70 dE 27			dBA 8	6	0 dBA 125		dBA 269

	FHV	VA-RD-77-108	HIGH	WAY NO	DISE PREDIC		IODEL						
Scenar	io: Existing Plu	is Project			Proje	ct Nam	e: Tracy	Hills					
Road Nam	e: Lammers R	load			Job	Numbe	r: 8559						
Road Segme	nt: North of Ele	eventh St											
	SPECIFIC IN	PUT DATA			NOISE MODEL INPUTS								
Highway Data				Si	ite Condition	s (Harc	l = 10, Se	oft = 15)					
Average Daily	Traffic (Adt):	4,010 vehicle	s				Autos:	15					
Peak Hour	Percentage:	10%			Medium T	Trucks (	2 Axles):	15					
Peak H	lour Volume:	401 vehicle	s		Heavy Tr	ucks (3	+ Axles):	15					
Ve	hicle Speed:	55 mph		V	ehicle Mix								
Near/Far La	ne Distance:	36 feet			VehicleTy	ne	Dav	Evening	Night	Dailv			
Site Data						Autos:				97.429			
Re	rrier Height:	0.0 feet			Medium	Trucks:	84.8%	4.9%	10.3%	1.849			
Barrier Type (0-W		0.0 1001			Heavy	Trucks	86.5%	2.7%	10.8%	0.749			
Centerline Di	. ,	100.0 feet											
Centerline Dist.		100.0 feet		N	oise Source			eet)					
Barrier Distance		0.0 feet					0.000						
Observer Height		5.0 feet			Medium Truc		2.297						
	ad Flevation:	0.0 feet			Heavy Truc	:ks:	8.006	Grade Ad	justment	: 0.0			
	ad Elevation: ad Elevation:	0.0 feet		1.	ane Equivale	nt Dist	ance (in	feet)					
	Road Grade:	0.0%					98.494	1001)					
	Left View:	-90.0 degree	<u>ac</u>		Medium Truc		98.404						
	Right View:	90.0 degree			Heavy Truc		98.413						
					-								
FHWA Noise Mod	el Calculation REMEL	s Traffic Flow	Die	tance	Finite Road		esnel	Demine Att	0	A			
VehicleType Autos:	71.78	-6.79	Dis	-4.52	-1.20		-4.77	Barrier Att	on Ber	m Atten 0.00			
Medium Trucks:	82.40	-0.79		-4.52	-1.20	-	-4.77		000	0.00			
Heavy Trucks:		-24.03		-4.51	-1.20		-4.00 -5.16		000	0.00			
,				-		,	-5.76	0.0	000	0.00			
Unmitigated Nois			-										
VehicleType	Leq Peak Hou			Leq Eve		q Night		Ldn		NEL			
Autos:	59		57.4		55.6		9.6	58.2		58.			
Medium Trucks:	52		51.2		44.8		3.2	51.		51.			
Heavy Trucks:	52		51.3		42.2		3.5	51.8		52.			
Vehicle Noise:			59.1		56.1	5	1.3	59.8	3	60.			
Centerline Distan	ce to Noise Co	ontour (in feet	)	70 dE		5 dBA		60 dBA		dBA			
			Ldn:	70 dE 21	04 0	45		97		09			
			Lan: NFL:	21		45 49		÷.		25			
		CI	VEL:	23		49		105	2	25			

	FH\	WA-RD-77-108	HIGHWA	Y NOISE P	REDICTIO	ON MODEL						
Scenar	io: Existing Pl	us Project		Project Name: Tracy Hills								
Road Nam	e: Lammers F	Road			Job Nu	mber: 8559						
Road Segme	nt: Btwn Old S	Schulte Rd and E	Eleventh S	St								
	SPECIFIC IN	IPUT DATA		NOISE MODEL INPUTS								
Highway Data				Site Cor	nditions (	Hard = 10, S	Soft = 15)					
Average Daily	Traffic (Adt):	5,670 vehicles				Autos	: 15					
Peak Hour	Percentage:	10%				cks (2 Axles)						
Peak H	lour Volume:	567 vehicles		He	eavy Truck	(3+ Axles)	: 15					
Ve	hicle Speed:	55 mph		Vehicle	Mix							
Near/Far La	ne Distance:	48 feet			nicleType	Day	Evening	Night E	Daily			
Site Data						utos: 77.59	Ű	•	7.429			
Ba	rrier Heiaht:	0.0 feet		М	edium Tru	icks: 84.89	% 4.9%	10.3% 1	1.84%			
Barrier Type (0-W		0.0			Heavy Tru	icks: 86.59	% 2.7%	10.8% 0	0.74%			
Centerline Di	st. to Barrier:	100.0 feet		Noise S	ource Ele	vations (in	feet)					
Centerline Dist.	to Observer:	100.0 feet			Autos:							
Barrier Distance	to Observer:	0.0 feet		Modiu	m Trucks:							
Observer Height (	Above Pad):	5.0 feet			vy Trucks:		Grade Adi	ustment: 0.	0			
Pad Elevation: 0.0 feet				Tica	ly muchs.	0.000	Grado / laj	dournornt. o.				
Road Elevation: 0.0 feet				Lane Eq	uivalent	Distance (in	feet)					
	Road Grade:	0.0%			Autos:							
	Left View:	-90.0 degree	s	Mediu	m Trucks:	97.115						
	Right View:	90.0 degree	S	Hear	vy Trucks:	97.124						
FHWA Noise Mod	el Calculation	IS		1								
VehicleType	REMEL	Traffic Flow	Distanc	e Finite	Road	Fresnel	Barrier Atte	en Berm A	Atten			
Autos:	71.78	-5.29	-4	4.43	-1.20	-4.77	0.0	00	0.00			
Medium Trucks:	82.40	-22.52	-4	4.43	-1.20	-4.88	0.0	00	0.00			
Heavy Trucks:	86.40	-26.48	-4	4.43	-1.20	-5.16	0.0	00	0.00			
Unmitigated Nois	e Levels (with	out Topo and	barrier at	tenuation)								
VehicleType	Leq Peak Ho			l Evening	Leq N	•	Ldn	CNEL				
Autos:	60		59.0	57.2		51.1	59.8		60.			
Medium Trucks:	54		52.7	46.4		44.8	53.3		53.			
Heavy Trucks:	54		52.9	43.8		45.1	53.4		53.			
Vehicle Noise:	62	2.4 6	60.7	57.7		52.8	61.4		61.			
Centerline Distan	ce to Noise C	ontour (in feet)										
				70 dBA	65 d		60 dBA	55 dB,	A			
		-	dn:	27	58		124	267	_			
			IFL:	29	62		133	287				

	WAY NOISE PREDICTION MODEL									
Scenario: Existing Plus Project	Project Name: Tracy Hills									
Road Name: Linne Road	Job Number: 8559									
Road Segment: Btwn Corral Hollow Rd and T	y Blvd									
SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS								
Highway Data	Site Conditions (Hard = 10, S	Soft = 15)								
Average Daily Traffic (Adt): 7,935 vehicles	Autos	s: 15								
Peak Hour Percentage: 10%	Medium Trucks (2 Axles)	): 15								
Peak Hour Volume: 794 vehicles	Heavy Trucks (3+ Axles	): 15								
Vehicle Speed: 55 mph	Vehicle Mix									
Near/Far Lane Distance: 48 feet	VehicleType Day	Evening N	ight Daily							
Site Data	Autos: 77.5	•	9.6% 97.42%							
Barrier Height: 0.0 feet	Medium Trucks: 84.8		0.3% 1.849							
Barrier Type (0-Wall, 1-Berm): 0.0	Heavy Trucks: 86.5	% 2.7% 1	0.8% 0.74%							
Centerline Dist. to Barrier: 100.0 feet										
Centerline Dist. to Observer: 100.0 feet	Noise Source Elevations (in	feet)								
Barrier Distance to Observer: 0.0 feet	Autos: 0.000									
Observer Height (Above Pad): 5.0 feet	Medium Trucks: 2.297									
Pad Elevation: 0.0 feet	Heavy Trucks: 8.006	Grade Adjus	ment: 0.0							
Road Elevation: 0.0 feet	Lane Equivalent Distance (in	n feet)								
Road Grade: 0.0%	Autos: 97.206									
Left View: -90.0 degrees	Medium Trucks: 97.115									
Right View: 90.0 degrees	Heavy Trucks: 97.124									
FHWA Noise Model Calculations										
VehicleType REMEL Traffic Flow	ance Finite Road Fresnel	Barrier Atten	Berm Atter							
Autos: 71.78 -3.83	-4.43 -1.20 -4.77									
Medium Trucks: 82.40 -21.07	-4.43 -1.20 -4.88									
Heavy Trucks: 86.40 -25.02	-4.43 -1.20 -5.16	6 0.000	0.00							
Unmitigated Noise Levels (without Topo and ba	r attenuation)									
VehicleType Leq Peak Hour Leq Day	Leq Evening Leq Night	Ldn	CNEL							
Autos: 62.3 60.	58.7 52.6	61.2	61.							
Medium Trucks: 55.7 54.	47.8 46.3	54.8	55.							
Heavy Trucks: 55.7 54.	45.3 46.5	54.9	55.							
Vehicle Noise: 63.9 62.	59.2 54.3	62.9	63.							
Centerline Distance to Noise Contour (in feet)										
	70 dBA 65 dBA	60 dBA	55 dBA							
Ldr	33 72	155	334							

Wednesday, November 13, 2013

Wednesday, November 13, 2013

Site Data         Autos:         77.5%         12.9%         9.6%         97           Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%         10.3%         1           Barrier Type (0-Wall, 1-Berrn):         0.0         Centerline Dist. to Barrier:         100.0 feet         Medium Trucks:         84.5%         4.9%         10.3%         1           Barrier Distance to Observer:         100.0 feet         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)         Noise Source (in feet) <t< th=""><th></th><th>FHWA-RD-7</th><th>7-108 HIGI</th><th>HWAY N</th><th>DISE PF</th><th>REDICTION</th><th>N MODEL</th><th></th><th></th><th></th></t<>		FHWA-RD-7	7-108 HIGI	HWAY N	DISE PF	REDICTION	N MODEL			
Road Segment: East of Tracy Blvd           Notes Stee Conditions (Hard = 10, Soft = 15)           Notes Model Input Taffic (Adi): 5,800 vehicles           Average Daily Traffic (Adi): 5,800 vehicles         Autos: 15           Peak Hour Percentage:         10%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         580 vehicles         Autos:         15           Vehicle Speed         55 mph         Vehicle Speed:         55 mph           Vehicle Speed:         55 mph         Vehicle Trucks:         84.8%         4.9%         10.3%         15           Site Data         Autos:         77.5%         12.9%         9.6%         97           Barrier Type (0-Wall, 1-Berm):         0.0 feet         Medium Trucks:         84.8%         4.9%         10.3%         10           Centerline Dist. to Darrier:         100.0 feet         Noise Source Elevations (in feet)         0.00           Deserver Height (Above Pad):         5.0 feet         Heavy Trucks:         8.0%         6.7%         10.8%         0           Pad Elevation:         0.0 feet         Medium Trucks:         97.106         Medium Trucks:         97.106           Road Grade:         0.0%         Autos:         97.106         Meavy Trucks:	Scenario: Exis	sting Plus Projec	t			Project Na	me: Trad	y Hills		
Site SPECIFIC INPUT DATA         NOISE MODEL INPUTS           Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         5,800 vehicles           Peak Hour Percentage:         10%           Medium Trucks (2 Avies):         15           Peak Hour Percentage:         580 vehicles           Vehicle Speed:         55 mph           Near/Fer Lane Distance:         48 feet           Vehicle Mix         Vehicle Mix           Barrier Height:         0.0 feet           Barrier Distance to Doserver:         10.0 feet           Centerline Dist. to Dariser:         0.0 feet           Barrier Distance to Observer:         0.0 feet           Road Elevation:         0.0 feet           Road Elevation:         0.0 feet           Road Elevation:         0.0 feet           Road Elevation:         0.0 feet           Road Grade:         0.0%           Left View:         -90.0 degrees           Hedium Trucks:         97.124           FHWA Noise Model Calculations         Distance           VehicleType         REMEL         Traffic Flow           VehicleType         REMEL         Traffic Flow           VehicleType         Read Hour						Job Num	ber: 855	9		
Highway Data         Site Conditions (Hard = 10, Soft = 15)           Average Daily Traffic (Adt):         5,800 vehicles           Peak Hour Porcentage:         10%           Peak Hour Volume:         580 vehicles           Vehicle Speed:         55 mph           Near/Far Lane Distance:         48 feet           Site Data         Autos:           Barrier Height:         0.0 feet           Barrier Jype (0-Wall, 1-Berm):         0.0 feet           Centerline Dist. to Observer:         10.0 feet           Daserver Height (Advo: 9, 0.0 feet         Autos:           Road Grade:         0.0 feet           Radie Dist. to Observer:         10.0 feet           Road Grade:         0.0 feet           Autos:         97.124           FHWA Noise Model Calculati	Road Segment: Eas	t of Tracy Blvd								
Average Daily Traffic (Adt):         5,800 vehicles           Average Daily Traffic (Adt):         5,800 vehicles           Peak Hour Percentage:         10%           Peak Hour Volume:         580 vehicles           Vehicle Speed:         55 mph           Near/Far Lane Distance:         48 feet           Site Data         Autos:           Barrier Height:         0.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0           Centerline Dist. to Barrier:         100.0 feet           Barrier Type (0-Wall, 1-Berm):         0.0           Observer Height (Above Pad):         5.0 feet           Pad Elevation:         0.0 feet           Road Grade:         0.0%           Left View:         -90.0 degrees           Right View:         90.0 degrees           Right View:         -90.0 degrees           Heavy Trucks:         86.40           Autos:         77.178           Autos:         77.206           Medium Trucks:         97.105           Medium Trucks:         97.206           Medium Trucks:         97.105           Noad Elevation:         0.0 feet           Right View:         -9.0.0 degrees           Heavy Trucks:		FIC INPUT D	ATA						S	
Peak Hour Percentage:         10%         Medium Trucks (2 Axles):         15           Peak Hour Volume:         580 vehicles         Heavy Trucks (3+ Axles):         15           Vehicle Speed:         55 mph         Vehicle Trucks         2 Axles):         15           Near/Far Lane Distance:         48 feet         Vehicle Trucks         2 Axles):         15           Site Data         Autos:         77.5%         12.9%         9.6%         97           Barrier Type (0-Wall, 1-Berm):         0.0 feet         Medium Trucks:         84.5%         2.7%         10.8%         1           Barrier Type (0-Wall, 1-Berm):         0.0 feet         Medium Trucks:         84.5%         2.7%         10.8%         1           Centerline Dist. to Darrier:         100.0 feet         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)           Observer Height (Above Pad):         5.0 feet         Heavy Trucks:         8.006         Grade Adjustment:         0.           Pad Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)           Right View:         90.0 degrees         Heavy Trucks:         97.105         Medium Trucks:         97.104           Heavy Trucks:	Highway Data			S	ite Con	ditions (H	ard = 10,	Soft = 15)		
Peak Hour Volume:         580 vehicles Vehicle Speed:         Heavy Trucks (3+ Axles):         15           Vehicle Speed:         55 mph         Vehicle Type         Day         Evening         Night         L           Site Data         Vehicle Type         Day         Evening         Night         L           Barrier Height:         0.0 feet         Madium Trucks:         84.8%         4.9%         10.3%         1           Barrier Height:         0.0 feet         Heavy Trucks:         84.8%         4.9%         10.3%         1           Centerline Dist. to Observer:         10.0 feet         Mateix:         77.5%         12.9%         9.6%         9           Observer Height (Above Pari:         0.0 feet         Heavy Trucks:         84.8%         4.9%         10.3%         1           Barrier Dist. to Observer:         10.0 feet         Autos:         7.7%         10.8%         0           Deserver Height (Above Pari:         0.0 feet         Autos:         97.124         4.40         1.20         4.41         Heavy Trucks:         97.124           FHWA Noise Model Calculations         VehicleType         ReBurber Attern         Bernal         Bernal         Bernal         Bernal         Bernal         Bernal         Bernal<	Average Daily Traffic	(Adt): 5,800 v	ehicles				Auto	os: 15		
Vehicle Speed:         55 mph Near/Far Lane Distance:         Vehicle Mix           Site Data         Vehicle Type         Day         Evening         Night         D           Site Data         Autos:         77.5%         12.9%         9.6%         91           Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%         10.3%         1           Barrier Type (0-Wall, 1-Berm):         0.0         feet         Medium Trucks:         84.8%         4.9%         10.3%         1           Barrier Type (0-Wall, 1-Berm):         0.0         feet         Noise Source Elevations (in feet)         10.8%         1         Heavy Trucks:         86.5%         2.7%         10.8%         0           Deserver Height (Above Pad):         5.0 feet         Autos:         0.00         Medium Trucks:         80.06         Grade Adjustment:         0.           Road Grade:         0.0%         Left View:         -90.0 degrees         Medium Trucks:         97.105         Heavy Trucks:         97.124           FHMA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm ////////////////////////////////////	Peak Hour Percer	tage: 10%			Me	dium Truck	s (2 Axle	s <i>):</i> 15		
Near/Far Lane Distance:         48 fet         Vehicle Type         Day         Evening         Night         L           Site Data         Autos:         77.5%         12.9%         9.6%         97           Barrier Height:         0.0 feet         Medium Trucks:         84.5%         4.9%         9.6%         97           Barrier Type (0-Wall, 1-Berm):         0.0         Heavy Trucks:         86.5%         2.7%         10.3%         1           Centerline Dist. to Darrier:         100.0 feet         Noise Source Elevations (in feet)         10.8%         1         10.8%         1         10.8%         1         10.8%         1         1         10.9%         1	Peak Hour Vo	<i>lume:</i> 580 v	ehicles		He	avy Trucks	(3+ Axle	s <i>):</i> 15		
Near/Far Lane Distance:         48 feet           Site Data         Autos:         77.5%         12.9%         9.6%         9.1%           Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%         10.3%         1           Barrier Type (0-Wall, 1-Berm):         0.0         Centerline Dist. to Barrier:         100.0 feet         Medium Trucks:         84.8%         4.9%         10.3%         1           Barrier Type (0-Wall, 1-Berm):         0.0         feet         Noise         Sum of Distance         10.8%         2.7%         10.8%         0           Centerline Dist. to Diserver:         100.0 feet         Autos:         0.00         Medium Trucks:         84.8%         4.9%         10.3%         1           Barrier Distance to Diserver:         0.0 feet         Autos:         0.000         Medium Trucks:         80.06         Grade Adjustment:         0.           Road Elevation:         0.0 feet         Autos:         97.206         Medium Trucks:         97.15         Heavy Trucks:         97.124           FHMA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm A           Medium Trucks:	Vehicle S	peed: 55 m	nph	v	ehicle I	Mix				
Site Data         Autos:         77.5%         12.9%         9.6%         97           Barrier Height:         0.0 feet         Medium Trucks:         84.8%         4.9%         10.3%         1           Barrier Type (0-Wall, 1-Berrn):         0.0         Centerline Dist. to Barrier:         100.0 feet         Medium Trucks:         84.5%         4.9%         10.3%         1           Barrier Distance to Observer:         100.0 feet         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)         Noise Source (in feet) <t< td=""><td>Near/Far Lane Dist</td><td>ance: 48 fe</td><td>eet</td><td>-</td><td></td><td></td><td>Dav</td><td>/ Evenina</td><td>Niaht</td><td>Daily</td></t<>	Near/Far Lane Dist	ance: 48 fe	eet	-			Dav	/ Evenina	Niaht	Daily
Barrier Type (IV-Wall, 1-Barri):         0.0         Heavy Trucks:         86.5%         2.7%         10.8%         Centerline Dist. to Barrier:         100.0 feet         Noise Source Elevations (in feet)         Noise Source Elevations (in feet)           Centerline Dist. to Doserver:         100.0 feet         Autos:         0.000         Medium Trucks:         86.5%         2.7%         10.8%         0.0%           Barrier Type (IV-Wall, 1-Barrier):         5.0 feet         Autos:         0.000         Medium Trucks:         80.06         Grade Adjustment:         0.           Pad Elevation:         0.0 feet         Autos:         97.206         Medium Trucks:         97.105           Right View:         -90.0 degrees         Heavy Trucks:         97.105         Medium Trucks:         97.115           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berrier           VehicleType         REMEL         Traffic Flow         Distance         -4.43         -1.20         -4.77         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leg Peak Hour         Leg Source         51.2         59.9           Medium Trucks:         54.3         52.8         46.5 </td <td>Site Data</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>os: 77.</td> <td>0</td> <td></td> <td></td>	Site Data	-					os: 77.	0		
Barrier Type (0-Wall, 1-Bern):         0.0         Heavy Trucks:         86.5%         2.7%         10.8%         0           Centerline Dist. to Desriver:         100.0 feet         Noise Source Elevations (in feet)         Noise Source Source Source Elevations (in feet)         Noise Source S	Barrier He	eight 0.0	feet		Me	edium Truc	ks: 84.	3% 4.9%	10.3%	1.84%
Centerline Dist. to Observer:         100.0 feet         Notes Source Levations (in feet)           Barrier Distance to Observer:         0.0 feet         Autos:         0.000           Observer Height (Above Pad):         5.0 feet         Medium Trucks:         2.297           Pad Elevation:         0.0 feet         Medium Trucks:         2.297           Road Grade:         0.0%         Lane Equivalent Distance (in feet)         Autos:           Road Grade:         0.0%         Left View:         90.0 degrees         Medium Trucks:         97.115           Heavy Trucks:         88.00         Cases         Finite Road         Fresnel         Barrier Atten         Bern A           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern A           Medium Trucks:         82.40         -22.43         -4.43         -1.20         -4.68         0.000           Medium Trucks:         82.40         -22.63         -4.43         -1.20         -5.16         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         Leg Evening         Leg Night         Ldn         CNEU           VehicleType         Leg Peak Hour         S2.8         46.5         44.9 <td></td> <td>•</td> <td></td> <td></td> <td>ŀ</td> <td>leavy Truc</td> <td>ks: 86.</td> <td>5% 2.7%</td> <td>10.8%</td> <td>0.74%</td>		•			ŀ	leavy Truc	ks: 86.	5% 2.7%	10.8%	0.74%
Barrier Distance to Observer:         0.0 feet         Autos:         0.000           Observer Height (Above Pad):         5.0 feet         Medium Trucks:         2.297           Observer Height (Above Pad):         5.0 feet         Medium Trucks:         2.297           Road Elevation:         0.0 feet         Left View:         90.0 degrees           Right View:         90.0 degrees         Medium Trucks:         97.206           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern/A           Medium Trucks:         82.43         -4.43         -1.20         -4.77         0.000           Medium Trucks:         86.40         -26.38         -4.43         -1.20         -5.16         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         Leg Vight         Ldn         CNEI           VehicleType         Keitour         59.1         57.3         51.2         59.9           Medium Trucks:         54.3         52.8         46.5         44.9         53.4			feet	٨	loise Sc	urce Elev	ations (ii	i feet)		
Medium Trucks:         2.297           Pad Elevation:         0.0 feet           Road Grade:         0.0%           Left View:         -90.0 degrees           Right View:         90.0 degrees           Heavy Trucks:         97.115           Heavy Trucks:         97.126           Medium Trucks:         71.78           -5.19         -4.43           -1.20         -4.77           Medium Trucks:         86.40           -26.38         -4.43           -1.20         -4.76           Medium Trucks:         86.40           -26.38         -4.43           -1.20         -4.76           Medium Trucks:         61.0           59.1         57.3           Medium Trucks:         51.2           S9.9         Medium Trucks:						Autos:	0.000	,		
Pad Elevation:         0.0 feet         Treavy Tracks:         8.006         Grade Adjustment.         0.           Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)         Lane Equivalent Distance (in feet)           Road Grade         0.0%         Left View:         -90.0 degrees         Medium Tracks:         97.115           Heavy Tracks:         98.00         degrees         Medium Tracks:         97.124           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern A           Autos:         71.78         -5.19         -4.43         -1.20         -4.68         0.000           Medium Tracks:         82.40         -22.43         -4.43         -1.20         -4.6         0.000           Medium Tracks:         82.60         -26.28         -4.43         -1.20         -5.16         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         Leq Night         Ldn         CNEU           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         S1.2           Medium Tracks:         54.3         52.8         46.5         44					Mediur	n Trucks:	2.297			
Road Elevation:         0.0 feet         Lane Equivalent Distance (in feet)           Road Grade:         0.0%         Autos:         97.206           Left View:         -90.0 degrees         Medium Trucks:         97.115           Right View:         90.0 degrees         Medium Trucks:         97.124           FHWA Noise Model Calculations         Finite Road         Fresnel         Barrier Atten         Bern Atten           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern Atten           Medium Trucks:         82.40         -22.43         -4.43         -1.20         -4.77         0.000           Heavy Trucks:         86.40         -26.38         -4.43         -1.20         -5.16         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         -26.31         -5.76         0.000           VehicleType         Leg Peak Hour         Leg Day         Leg Right         Ldn         CNEI           Autos:         61.0         59.1         57.3         51.2         59.9           Medium Trucks:         54.3         52.8         46.5         44.9         53.4		,			Heav	y Trucks:	8.006	Grade Ad	justment:	0.0
Road Grade:         0.0%         Autos:         97.206           Left View:         -90.0 degrees         Medium Trucks:         97.15           Heavy Trucks:         97.115         Heavy Trucks:         97.124           FHWA Noise Model Calculations         VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm A           Autos:         71.78         -519         -4.43         -1.20         -4.77         0.000           Medium Trucks:         88.40         -22.638         -4.43         -1.20         -5.16         0.0000           Unnitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leg Peak Hour         Leg Day         Leg Vehicle Type         59.9           Medium Trucks:         54.3         52.8         46.5         44.9         53.4				-						
Left View:         -90.0 degrees         Medium Trucks:         97.115           Right View:         90.0 degrees         Heavy Trucks:         97.124           FHWA Noise Model Calculations         Environmentation         Environmentation         Barrier Atten         Bern A           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern A           Autos:         71.78         -5.19         -4.43         -1.20         -4.77         0.000           Medium Trucks:         82.40         -22.43         -4.43         -1.20         -5.16         0.000           Heavy Trucks:         86.40         -26.38         -4.43         -1.20         -5.16         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         -25.16         0.000         0.000         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         Leq Night         Ldn         CNEU           VehicleType         Leq Peak Hour         Leq Day         Leq Night         Ldn         CNEU           Autos:         61.0         59.1         57.3         51.2         59.9         9.9           Medium Trucks:         54.3         52.8 </td <td></td> <td></td> <td></td> <td>L</td> <td>ane Eq</td> <td></td> <td></td> <td>in feet)</td> <td></td> <td></td>				L	ane Eq			in feet)		
Right View:         90.0 degrees         Heavy Trucks:         97.124           FHWA Noise Model Calculations         Image: Constraint of the state of th										
FHWA Noise Model Calculations         Finite Road         Fresnel         Barrier Atten         Bern A           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Bern A           Autos:         71.78         -5.19         -4.43         -1.20         -4.77         0.000           Medium Trucks:         82.40         -22.43         -4.43         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -26.38         -4.43         -1.20         -5.16         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leg Day         Leg Vehing         Leq Night         Ldn         CNEL           Autos:         61.0         59.1         57.3         51.2         59.9         Medium Trucks:         53.4			•							
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berrn A           Autos:         71.78         -5.19         -4.43         -1.20         -4.77         0.000           Medium Trucks:         82.40         -22.43         -4.43         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -26.38         -4.43         -1.20         -5.16         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           VehicleType         Leq Peak Hour         S9.1         57.3         51.2         59.9         Medium Trucks:         53.4	Right	View: 90.0	degrees		Heav	y Trucks:	97.124			
Autos:         71.78         -5.19         -4.43         -1.20         -4.77         0.000           Medium Trucks:         82.40         -22.43         -4.43         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -26.38         -4.43         -1.20         -5.16         0.000           Umitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.0         59.1         57.3         51.2         59.9         Medium Trucks:         54.3         52.8         46.5         44.9         53.4										
Medium Trucks:         82.40         -22.43         -4.43         -1.20         -4.88         0.000           Heavy Trucks:         86.40         -26.38         -4.43         -1.20         -5.16         0.000           Umnitigated Noise Levels (without Topo and barrier attenuation)         Use Levels (without Topo and barrier attenuation)         Leq Night         Ldn         CNEL           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.0         59.1         57.3         51.2         59.9         53.4										
Heavy Trucks:         86.40         -26.38         -4.43         -1.20         -5.16         0.000           Unnitigated Noise Levels (without Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           VehicleType         Leq Peak Hour         Leg Day         Leg Vehicle         51.2         59.9           Medium Trucks:         61.0         52.8         46.5         44.9         53.4										0.00
Unnitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.0         59.1         57.3         51.2         59.9           Medium Trucks:         54.3         52.8         46.5         44.9         53.4										0.00
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         61.0         59.1         57.3         51.2         59.9           Medium Trucks:         54.3         52.8         46.5         44.9         53.4						-1.20	-5.1	6 0.0	000	0.00
Autos:         61.0         59.1         57.3         51.2         59.9           Medium Trucks:         54.3         52.8         46.5         44.9         53.4	•				<u> </u>					
Medium Trucks: 54.3 52.8 46.5 44.9 53.4		l		Leq Ev	~	Leq Nig			-	VEL 60.
									-	53.
	Heavy Trucks:	54.3 54.4	52.8 53.0		46.5		44.9 45.2			53. 53.
Heavy Trucks:         54.4         53.0         43.9         45.2         53.5           Vehicle Noise:         62.5         60.8         57.8         52.9         61.5										53. 62.
					57.8		52.9	61.	0	62.
Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dB	Centerline Distance to N	oise Contour (i	n teet)	70 d	BA	65 dB	4	60 dBA	55	dBA
Ldn: 27 58 126 271			Ldn:							
CNEL: 29 63 135 292				29						

	FHV	VA-RD-77-108 F	IIGHW	AY NO	DISE PR	EDICTIC	N MO	DEL				
Road Nam	o: Existing Plu e: Valpico Roa	ad	Troo: 5	th rel		Project N Job Nu			Hills			
•		I Hollow Rd and	Tracy E	siva								
SITE : Highway Data	SPECIFIC IN	PUT DATA		NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15)								
Average Daily	Troffic (Adt)	8.850 vehicles			te oom	1110113 (1		Autos:	15			
		10%			Mar	lium Truc			15			
	Percentage: our Volume:	885 vehicles				avy Truck						
	hicle Speed:	55 mph					5 (3+7	члюз).	15			
Near/Far I ar	,	48 feet		V	ehicle N							
	ic Distance.	40 1000			Vehi	cleType		Day	Evening	Night	Daily	
Site Data								77.5%			97.429	
Bar	rier Height:	0.0 feet				dium Tru		84.8%		10.3%		
Barrier Type (0-W	all, 1-Berm):	0.0			н	leavy Tru	cks:	86.5%	2.7%	10.8%	0.749	
Centerline Dis	t. to Barrier:	100.0 feet		N	oise So	urce Ele	vation	s (in fe	et)			
Centerline Dist.	to Observer:	100.0 feet		-		Autos:		200				
Barrier Distance t	o Observer:	0.0 feet			Mediun	1 Trucks:		297				
Observer Height (J	Above Pad):	5.0 feet			Heav	/ Trucks:	8.0	006	Grade Ad	liustment.	0.0	
	d Elevation:	0.0 feet										
	d Elevation:	0.0 feet		Li	ane Equ	ivalent l			feet)			
F	Road Grade:	0.0%				Autos:	97.2					
	Left View:	-90.0 degrees				n Trucks:						
	Right View:	90.0 degrees			Heavy	/ Trucks:	97.1	124				
FHWA Noise Mode		-										
VehicleType	REMEL	Traffic Flow	Distan		Finite I		Fresn		Barrier At		m Atter	
Autos:	71.78	-3.35		-4.43		-1.20		-4.77		000	0.00	
Medium Trucks:	82.40	-20.59		-4.43		-1.20		-4.88		000	0.00	
Heavy Trucks:	86.40	-24.55		-4.43		-1.20		-5.16	0.0	000	0.00	
Unmitigated Noise												
	Leq Peak Hou			eq Eve	•	Leq N	•		Ldn		VEL	
Autos:	62		).9		59.1		53.1		61.		62	
Medium Trucks:	56		1.7		48.3		46.8		55.		55	
Heavy Trucks:	56		1.8		45.8		47.0		55.		55	
Vehicle Noise:	64		2.6		59.7		54.8	5	63.	3	63	
Centerline Distanc	e to Noise Co	ontour (in feet)		70 dE	24	65 di	24	6	0 dBA	55	dBA	
			. ட		<i>//</i> 1				167		06A 59	
		1.	dn:	36		77						

	FHV	VA-RD-77-108	HIGHW	Y NO	ISE PR	EDICTIO				
	Existing Plu						a <i>me:</i> Tracy	Hills		
Road Name:						Job Nun	nber: 8559			
Road Segment:	Btwn Lamm	ners Rd and Co	rral Hollo	w Rd						
	PECIFIC IN	PUT DATA				NO	ISE MOD	EL INPUT	s	
Highway Data				Sit	e Conc	litions (H	lard = 10, S	oft = 15)		
Average Daily Tr	affic (Adt):	4,605 vehicles					Autos	: 15		
Peak Hour Pe	ercentage:	10%			Med	lium Trucl	ks (2 Axles)	: 15		
Peak Hou	ır Volume:	461 vehicles			Hea	vy Trucks	s (3+ Axles)	: 15		
Vehio	cle Speed:	55 mph		Ve	hicle M	lix				
Near/Far Lane	Distance:	48 feet				leType	Day	Evening	Night	Daily
Site Data						Au		•	9.6%	97.42%
Parri	er Height:	0.0 feet			Me	dium Truc	ks: 84.8%	6 4.9%	10.3%	1.84%
Barrier Type (0-Wal		0.0			H	eavy Truc	ks: 86.5%	% 2.7%	10.8%	0.74%
Centerline Dist.		100.0 feet		No	ine Ca	uree Elev	ations (in	fact)		
Centerline Dist. to	Observer:	100.0 feet		740	158 300	Autos:		ieel)		
Barrier Distance to	Observer:	0.0 feet					0.000			
Observer Height (Al	oove Pad):	5.0 feet		,		Trucks: Trucks:	2.297	Grade Ad	iustmont	0.0
Pad	Elevation:	0.0 feet			neavy	TTUCKS.	0.000	Orade Au	usunon.	0.0
Road	Elevation:	0.0 feet		La	ne Equ	ivalent D	istance (in	feet)		
Ro	ad Grade:	0.0%				Autos:	97.206			
	Left View:	-90.0 degree	s	1	Medium	Trucks:	97.115			
F	Right View:	90.0 degree	s		Heavy	Trucks:	97.124			
FHWA Noise Model	Calculation	s		- 1						
VehicleType	REMEL	Traffic Flow	Distan	се	Finite F	Road	Fresnel	Barrier Att	en Ber	m Atten
Autos:	71.78	-6.19		4.43		-1.20	-4.77		000	0.000
Medium Trucks:	82.40	-23.43		4.43		-1.20	-4.88		000	0.000
Heavy Trucks:	86.40	-27.38		4.43		-1.20	-5.16	0.0	000	0.000
Unmitigated Noise L	evels (with	out Topo and I	barrier a	ttenua	tion)					
	eq Peak Hou	1 1		q Eve	~	Leq Ni		Ldn		VEL
Autos:	60.		58.1		56.3		50.2	58.9	-	59.5
Medium Trucks:	53.		51.8		45.5		43.9	52.4		52.6
Heavy Trucks:	53.		52.0		42.9		44.2	52.5	-	52.7
Vehicle Noise:	61.	.5 5	59.8		56.8		51.9	60.5	5	61.0
Centerline Distance	to Noise Co	ontour (in feet)								
				70 dB.	4	65 dE	А	60 dBA		dBA
		1	dn:	23		50		108	2	33
			IFL :	25		54		116		50

	FH	WA-RD-77-108	HIGH	WAY NO	DISE PR	EDICTIO	N MODE	-					
Road Nam	io: Existing Pl ne: Valpico Ro nt: East of Tra	, bad				Project Na Job Nun	ame: Tra nber: 855						
	SPECIFIC II	NPUT DATA			NOISE MODEL INPUTS								
Highway Data				S	ite Con	ditions (H	lard = 10,	Soft = 15)					
Average Daily	Traffic (Adt):	12,700 vehicle	s				Aut	os: 15					
	Percentage:	10%				dium Truck		-/ -					
	lour Volume:	1,270 vehicle	s		Hea	avy Trucks	s (3+ Axle	s): 15					
	hicle Speed:	55 mph		V	ehicle I	Лix							
Near/Far La	ne Distance:	48 feet			Vehi	cleType	Da	/ Evening	Night	Daily			
Site Data						Aut	tos: 77.	5% 12.9%	9.6%	97.42%			
Ba	rrier Height:	0.0 feet			Me	edium Truc	cks: 84.	8% 4.9%	10.3%	1.84%			
Barrier Type (0-W		0.0			ŀ	leavy Truc	cks: 86.	5% 2.7%	10.8%	0.74%			
Centerline Di	st. to Barrier:	100.0 feet		N	oise So	urce Elev	ations (i	1 feet)					
Centerline Dist.		100.0 feet				Autos:	0.000						
Barrier Distance		0.0 feet			Mediur	n Trucks:	2.297						
Observer Height	· · · ·	5.0 feet			Heav	y Trucks:	8.006	Grade Ad	ljustment	: 0.0			
	ad Elevation:	0.0 feet						(m. f. m. s. s.)					
	ad Elevation:	0.0 feet		L	ane Equ	uivalent D	97.206	,					
	Road Grade: Left View:	0.0%			Madium	n Trucks:	97.206						
	Right View:	-90.0 degre 90.0 degre				y Trucks:	97.113						
FHWA Noise Mod	el Calculation	15											
VehicleType	REMEL	Traffic Flow	Dist	ance	Finite	Road	Fresnel	Barrier At	ten Ber	m Atten			
Autos:	71.78	-1.78		-4.43		-1.20	-4.	7 0.0	000	0.000			
Medium Trucks:	82.40	-19.02		-4.43		-1.20	-4.8	38 0.0	000	0.000			
Heavy Trucks:	86.40	-22.98		-4.43		-1.20	-5.	6 0.	000	0.000			
Unmitigated Nois	e Levels (with	hout Topo and	barrie	r attenu	ation)								
VehicleType	Leq Peak Ho			Leg Eve		Leq Ni	·	Ldn	-	NEL			
Autos:	-	4.4	62.5		60.7		54.6	63.		63.9			
Medium Trucks:		7.8	56.2		49.9		48.3	56.		57.0			
Heavy Trucks:	-	7.8	56.4		47.3		48.6	56.	-	57.1			
Vehicle Noise:		5.9	64.2		61.2		56.4	64.	9	65.4			
Centerline Distan	ce to Noise C	ontour (in fee	9	70 //		05.15				10.4			
			I dn:	70 dl	5A	65 dB 99	64	60 dBA		dBA			
		0	Lan: NFL:	46 49		99 106		212 228		157 192			
		C C	IVEL:	49		106		228	4	192			

Wednesday, November 13, 2013

Wednesday, November 13, 2013

Project Name: Tracy Hills Job Number: 8559 NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15) Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (2 Axles): 15 Vehicle Mix Vehicle Type Day Evening Night Du
NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15) Autos: 15 Medium Trucks (2 Avles): 15 Heavy Trucks (3+ Avles): 15 Vehicle Mix
Site Conditions (Hard = 10, Soft = 15)           Autos:         15           Medium Trucks (2 Axles):         15           Heavy Trucks (3+ Axles):         15           Vehicle Mix         15
Site Conditions (Hard = 10, Soft = 15)           Autos:         15           Medium Trucks (2 Axles):         15           Heavy Trucks (3+ Axles):         15           Vehicle Mix         15
Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15 Vehicle Mix
Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15 Vehicle Mix
Heavy Trucks (3+ Axles): 15 Vehicle Mix
Vehicle Mix
Autos: 77.5% 12.9% 9.6% 97.
Medium Trucks: 84.8% 4.9% 10.3% 1.
Heavy Trucks: 86.5% 2.7% 10.8% 0.
Noise Source Elevations (in feet)
Autos: 0.000
Medium Trucks: 2,297
Heavy Trucks: 8,006 Grade Adjustment: 0.0
Lane Equivalent Distance (in feet)
Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124
Finite Road Fresnel Barrier Atten Berm A
43 -1.20 -4.77 0.000 0
43 -1.20 -4.88 0.000 0
43 -1.20 -5.16 0.000 0
nuation)
Evening Leq Night Ldn CNEL
52.4 46.4 55.0
41.6 40.1 48.5
<u>39.1</u> 40.3 48.7
53.0 48.1 56.7
dBA 65 dBA 60 dBA 55 dBA
13 28 60 129
14 30 64 139

	FHV	VA-RD-77-108 H	IIGHW/	AY NC	DISE PR	EDICTIO	N MOE	DEL					
Scenario	c: Cumulative				1	Project N	ame: T	racy I	Hills				
Road Name	e: Tracy Boule	evard		Job Number: 8559									
Road Segmen	t: North of Va	lpico Rd											
	PECIFIC IN	PUT DATA		NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15)									
Highway Data				Si	te Cond	litions (H	lard =	10, Sc	oft = 15)				
Average Daily T	raffic (Adt): 2	24,500 vehicles						lutos:	15				
Peak Hour F	Percentage:	10%			Med	ium Truc	ks (2 A	xles):	15				
Peak Ho	our Volume:	2,450 vehicles			Hea	vy Truck	s (3+ A	xles):	15				
	icle Speed:	55 mph		Ve	ehicle M	lix							
Near/Far Lan	e Distance:	48 feet			Vehic	leType	1	Day	Evening	Night	Daily		
Site Data						Au	tos: T	77.5%		9.6%	97.42		
Barr	rier Height:	0.0 feet			Med	dium True	cks: 8	34.8%	4.9%	10.3%	1.84		
Barrier Type (0-Wa		0.0			He	eavy Tru	cks: 8	36.5%	2.7%	10.8%	0.74		
Centerline Dist		100.0 feet						1	- 41				
Centerline Dist. to	o Observer:	100.0 feet		N	DISE SOL	urce Elev			et)				
Barrier Distance to	o Observer:	0.0 feet			A da alla una	Autos: Trucks:	0.0						
Observer Height (A	Above Pad):	5.0 feet				Trucks:	2.2		Grade Ad	iustmont	0.0		
Pad	d Elevation:	0.0 feet			neavy	TTUCKS.	0.0	00	Graue Au	jusunen.	0.0		
Road	0.0 feet		Lá	ane Equ	ivalent D	)istanc	e (in i	eet)					
R	oad Grade:	0.0%				Autos:	97.2	:06					
	Left View:	-90.0 degrees	5		Medium	Trucks:	97.1	15					
	Right View:	90.0 degrees	5		Heavy	Trucks:	97.1	24					
FHWA Noise Mode	I Calculation	s											
VehicleType	REMEL	Traffic Flow	Distan	се	Finite F	Road	Fresne	e/	Barrier Att	en Ber	m Atter		
Autos:	71.78	1.07		4.43		-1.20	-	4.77	0.0	000	0.00		
Medium Trucks:	82.40	-16.17		-4.43		-1.20		4.88		000	0.00		
Heavy Trucks:	86.40	-20.13		4.43		-1.20	-	5.16	0.0	000	0.0		
Unmitigated Noise													
	Leq Peak Hou			q Eve		Leq Ni	•		Ldn		VEL		
Autos:	67		5.3		63.6		57.5		66.1		66		
Medium Trucks:	60		9.1		52.7		51.2		59.		59		
Heavy Trucks:	60		9.2		50.2		51.4		59.8		59		
Vehicle Noise:	68		7.0		64.1		59.2		67.8	3	68		
Centerline Distance	e to Noise Co	ontour (in feet)		70 dE	24	65 dE	24	6	0 dBA	55	dBA		
		,	dn:	70 02		153		C	329		00A 09		

	FHWA-P	RD-77-108	HIGH	HWAY N	IOISE PR	EDICTIC	N MOD	EL			
Scenario: Cumula Road Name: Tracy B Road Segment: Btwn Li	oulevar		Rd			Project N Job Nu			Hills		
SITE SPECIFIC Highway Data	INPU	T DATA			Site Con					3	
Average Daily Traffic (Ad Peak Hour Percentag Peak Hour Volum	ə:	00 vehicles 10% 00 vehicles			Med	dium Truc avy Truck	A ks (2 A	utos: xles):	15 15 15 15		
Vehicle Spee		55 mph		1	Vehicle N	lix					
Near/Far Lane Distanc	e: 4	48 feet			Vehi	cleType	Ĺ	Day	Evening	Night	Daily
Site Data Barrier Heigh Barrier Type (0-Wall, 1-Bern		0.0 feet				Aı dium Tru leavy Tru	cks: 8	7.5% 34.8% 36.5%	4.9%	9.6% 10.3% 10.8%	1.84
<i>,</i> , , , , , , , , , , , , , , , , , , ,	·	0.0 feet		-	Noise So	uree Ele	votiono	lin fe	041		
Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Mediun Heavy L <b>ane Equ</b> Mediun	Autos: n Trucks: y Trucks:	0.0 2.2 8.0 Distanc 97.2 97.1	00 97 06 <b>e (in 1</b> 06 15	Grade Adj	ustment	÷ 0.0
FHWA Noise Model Calculat VehicleType REMEL		affic Flow	Dis	stance	Finite	Road	Fresne	2/	Barrier Atte	en Bei	rm Atten
Autos: 71	.78	-2.03		-4.43	3	-1.20	-	4.77	0.0	00	0.00
	.40 .40	-19.27 -23.22		-4.43 -4.43	-	-1.20 -1.20		4.88 5.16	0.0 0.0		0.00 0.00
Unmitigated Noise Levels (v			barri								
VehicleType Leq Peak		Leq Day		Leq Ev	~	Leq N	v		Ldn		NEL
Autos:	64.1		2.2		60.5		54.4		63.0		63
Medium Trucks:	57.5 57.5		6.0 6.1		49.6 47.1		48.1 48.3		56.6 56.7		56
Heavy Trucks: Vehicle Noise:	57.5 65.7		3.9		61.0		48.3		56.7 64.7		56. 65.
Centerline Distance to Noise					51.0		50.1		04.7		05
Contentine Distance to Nois	. 50110	(11 1661)	Т	70 c	1BA	65 d	BA	6	0 dBA	55	dBA
			L	,,,,		50 0		0			
		L	.dn:	4	4	95			204	4	140

	FHWA-F	RD-77-108 HIG	HWAY	NOISE PR	REDICTIO	N MODEL			
Scenario: Cumu	lative				Project Na	ame: Trac	/ Hills		
Road Name: Corra	Hollow R	oad			Job Nun	nber: 8559			
Road Segment: Btwn	-580 EB F	Ramps and I-58	80-WB F	Ramps					
SITE SPECIF	IC INPU	Г ДАТА		0/4- 0				S	
Highway Data				Site Con	ditions (H		,		
Average Daily Traffic (A		50 vehicles				Autos			
Peak Hour Percenta	3	10%			dium Truck				
Peak Hour Volu		35 vehicles		He	avy Trucks	(3+ Axles	): 15		
Vehicle Spe		55 mph		Vehicle I	Mix				
Near/Far Lane Distar	ce: 4	18 feet		Veh	icleType	Day	Evening	Night	Daily
Site Data					Aut	os: 77.5	% 12.9%	9.6%	97.429
Barrier Heig	iht:	0.0 feet		Me	edium Truc	ks: 84.8	% 4.9%	10.3%	1.849
Barrier Type (0-Wall, 1-Ber		0.0		ŀ	Heavy Truc	ks: 86.5	% 2.7%	10.8%	0.749
Centerline Dist. to Ban		0.0 feet		Noise So	ource Elev	ations (in	feet)		
Centerline Dist. to Obser		0.0 feet			Autos:	0.000	í		
Barrier Distance to Obser		0.0 feet		Mediu	m Trucks:	2.297			
Observer Height (Above Pa	,	5.0 feet		Heav	v Trucks:	8.006	Grade Ac	ljustment	: 0.0
Pad Elevat		0.0 feet						·	
Road Elevat		0.0 feet		Lane Eq	uivalent D		n feet)		
Road Gra		0.0%			Autos:	97.206			
Left Vi	ew: -9	0.0 degrees		Mediui	m Trucks:	97.115			
Right Vi	ew: 9	0.0 degrees		Heav	y Trucks:	97.124			
FHWA Noise Model Calcul									
VehicleType REME			istance		Road	Fresnel	Barrier At		rm Atten
	1.78	-4.79	-4.4		-1.20	-4.77		000	0.00
	2.40	-22.03	-4.4		-1.20	-4.88		000	0.00
	6.40	-25.99	-4.4	-	-1.20	-5.16	s 0.	000	0.00
Unmitigated Noise Levels					L NE		Lata		NEL
VehicleType Leq Pea Autos:	61.4	Leq Day 59.5		vening 57.7	Leq Ni		Ldn		
Autos: Medium Trucks:	54.7	59.5 53.2		57.7 46.9		51.6 45.3	60. 53.		60. 54.
Heavy Trucks:	54.7 54.8	53.2 53.4		46.9		45.3 45.6	53. 53.		54. 54.
Vehicle Noise:	54.8 62.9	53.4 61.2		44.3 58.2		45.6 53.3	53. 61.	•	54. 62.
Centerline Distance to Noi	se Conto	ur (in feet)				-	-		-
		,	70	dBA	65 dB	A	60 dBA	55	dBA
		Ldn:		29	62		134		288
		CNEL:	-	31	67		144		310
		ONLE.			0.				

Wednesday, November 13, 2013

Wednesday, November 13, 2013

	FHV	VA-RD-77-10	BHIGH	WAY N	OISE P	REDICTIC	N MO	DEL			
Scenario	p: Cumulative					Project N	lame: `	Tracy I	Hills		
	e: Corral Hollo					Job Nu	mber:	8559			
Road Segmen	t: Btwn I-580	WB Ramps a	nd Spin	e Rd							
	PECIFIC IN	IPUT DATA							L INPUT	S	
Highway Data				S	lite Cor	nditions (H	lard =	10, Sc	oft = 15)		
Average Daily 1	Fraffic (Adt):	7,050 vehicle	es				,	Autos:	15		
Peak Hour F	Percentage:	10%			Me	edium Truc	:ks (2 A	(xles)	15		
Peak Ho	our Volume:	705 vehicle	es		He	eavy Truck	's (3+ A	(xles)	15		
Veh	nicle Speed:	55 mph		1	ehicle/	Mix					
Near/Far Lan	e Distance:	48 feet		F		nicleType		Day	Evening	Night	Daily
Site Data						AL	itos:	77.5%	12.9%	9.6%	97.42
Bari	rier Height:	0.0 feet			М	edium Tru	cks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wa	all, 1-Berm):	0.0				Heavy Tru	cks:	86.5%	2.7%	10.8%	0.74
Centerline Dis		100.0 feet		^	loise S	ource Ele	vation	s (in fe	et)		
Centerline Dist. t		100.0 feet				Autos:	0.0	000	,		
Barrier Distance t		0.0 feet			Mediu	m Trucks:	2.2	297			
Observer Height (A	,	5.0 feet			Hear	v Trucks:	8.0	006	Grade Ad	justmen	: 0.0
	d Elevation:	0.0 feet		L							
	d Elevation:	0.0 feet		L	ane Eq	uivalent l			'eet)		
R	Road Grade:	0.0%				Autos:					
	Left View:	-90.0 degre				m Trucks:					
	Right View:	90.0 degre	es		Hear	vy Trucks:	97.	124			
FHWA Noise Mode		-									
VehicleType	REMEL	Traffic Flow		lance		Road	Fresn		Barrier Att		rm Atter
Autos:	71.78	-4.34		-4.43		-1.20		-4.77		000	0.0
Medium Trucks:	82.40	-21.58		-4.43		-1.20		-4.88		000	0.00
Heavy Trucks:	86.40	-25.53		-4.43		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise								1			
	Leq Peak Hou		·	Leq Ev	· ·	Leq N	·		Ldn	-	NEL
Autos:	61		59.9		58.1		52.1		60.7		61
Medium Trucks:	55		53.7		47.3		45.8		54.2	-	54
Heavy Trucks:	55		53.8		44.8		46.0		54.4		54
Vehicle Noise:	63		61.6		58.7		53.8		62.3	3	62
Centerline Distanc	e to Noise Co	ontour (in fee	t)	70 a	RΔ	65 dl	RA	6	0 dBA	55	dBA
			Ldn:	31		67			143		309
		6	NFL:	33		72			143		332
		C		50		12					~~~

	FHV	/A-RD-77-108	HIGH	WAY N	OISE PF	REDICT	ION MOI	DEL			
Scenario	: Cumulative					Project	Name:	racy	Hills		
Road Name	: Corral Hollo	w Road				Job N	lumber: 8	3559			
Road Segmen	t: Btwn N. Tra	cy Hills Rd and	Linne	e Rd							
	PECIFIC IN	PUT DATA							L INPUT	5	
Highway Data				5	Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily 7	raffic (Adt):	7,050 vehicles						Autos:	15		
Peak Hour F	Percentage:	10%			Mee	dium Tr	ucks (2 A	xles):	15		
Peak Ho	our Volume:	705 vehicles			Hea	avy Tru	cks (3+ A	xles):	15		
Veh	icle Speed:	55 mph		1	/ehicle I	Mix					
Near/Far Lan	e Distance:	48 feet		Ľ		icleType		Day	Evening	Night	Daily
Site Data					VCIII			77.5%		9.6%	
		0.0 feet			Me	dium T		84.8%		10.3%	
	rier Height:	0.0 reet			F	leavy T	rucks:	36.5%	2.7%	10.8%	
Barrier Type (0-Wa Centerline Dis		0.0 100.0 feet								10.070	0.7 1
Centerline Dist. to		100.0 feet		1	loise So	ource E	levations	s (in fe	eet)		
Barrier Distance to		0.0 feet				Auto		00			
Observer Height (A		5.0 feet			Mediur	n Truck	s: 2.2	97			
0 1	d Elevation:	0.0 feet			Heav	y Truck	s: 8.0	06	Grade Adj	ustment.	0.0
	d Elevation:	0.0 feet		,	ane Foi	uivalen	t Distand	e (in	feet)		
	oad Grade:	0.0%		-	.uno 241	Auto					
	Left View:	-90.0 degree	e		Mediur	n Truck					
	Right View:	90.0 degree				y Truck					
	•	ů	-			,,					
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Disi	tance	Finite		Fresn		Barrier Att		m Atter
Autos:	71.78	-4.34		-4.43		-1.20		4.77	0.0		0.00
Medium Trucks:	82.40	-21.58		-4.43		-1.20		4.88	0.0		0.00
Heavy Trucks:	86.40	-25.53		-4.43	3	-1.20		-5.16	0.0	00	0.00
Unmitigated Noise			barrie								
	Leq Peak Hou			Leq Ev	· · ·	Leq	Night		Ldn		VEL
Autos:	61.		9.9		58.1		52.1		60.7		61
Medium Trucks:	55.		3.7		47.3		45.8		54.2		54
Heavy Trucks:	55.		3.8		44.8		46.0		54.4		54
Vehicle Noise:	63.		61.6		58.7		53.8		62.3		62
Centerline Distance	e to Noise Co	ntour (in feet)	-	70	04		-10.4		0.0		-10.4
			L	70 a			dBA	6	60 dBA		dBA
		L	.dn:	31	1	6	67		143	3	09
		÷.	FL:	33		_	2		154	-	32

FHWA-RD-77-108 HIGH	IWAY N	IOISE PI	REDICTIO	ON MOI	DEL			
Scenario: Cumulative Road Name: Corral Hollow Road Road Segment: Btwn Spine Rd and N. Tracy Hil	lls Rd		Project N Job Nu			Hills		
SITE SPECIFIC INPUT DATA							6	
Highway Data	1	Site Con	ditions (		<u> </u>	,		
Average Daily Traffic (Adt): 7,050 vehicles					lutos:	15		
Peak Hour Percentage: 10%			dium Truc	•		15		
Peak Hour Volume: 705 vehicles		He	avy Truck	(3+ A	xles):	15		
Vehicle Speed: 55 mph	1	Vehicle	Mix					
Near/Far Lane Distance: 48 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data			A	itos:	77.5%	12.9%	9.6%	97.429
Barrier Height: 0.0 feet		M	edium Tru	icks:	34.8%	4.9%	10.3%	1.849
Barrier Type (0-Wall, 1-Berm): 0.0		ŀ	leavy Tru	icks:	36.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 100.0 feet	-	N-/ 0			1	- 41		
Centerline Dist. to Observer: 100.0 feet	1	NOISE SC	ource Ele			et)		
Barrier Distance to Observer: 0.0 feet			Autos:					
Observer Height (Above Pad): 5.0 feet			m Trucks:			Grade Adji	ustmont	- 0.0
Pad Elevation: 0.0 feet		Heav	ry Trucks:	8.0	06	Graue Auji	Journering	. 0.0
Road Elevation: 0.0 feet	1	Lane Eq	uivalent	Distand	e (in f	eet)		
Road Grade: 0.0%			Autos:	97.2	206			
Left View: -90.0 degrees		Mediu	m Trucks:	97.1	15			
Right View: 90.0 degrees		Heav	y Trucks:	97.1	24			
FHWA Noise Model Calculations								
	stance	Finite	Road	Fresn		Barrier Atte	en Bei	rm Atten
Autos: 71.78 -4.34	-4.43	-	-1.20		4.77	0.0		0.00
Medium Trucks: 82.40 -21.58	-4.43	-	-1.20		4.88	0.0		0.00
Heavy Trucks: 86.40 -25.53	-4.43	3	-1.20		-5.16	0.0	00	0.00
Unmitigated Noise Levels (without Topo and barrie								
VehicleType Leq Peak Hour Leq Day	Leq Ev		Leq N			Ldn	-	NEL
Autos: 61.8 59.9 Medium Trucks: 55.2 53.7		58.1 47.3		52.1 45.8		60.7 54.2		61. 54.
Weulum mucks. 55.2 53.7		47.3		45.8		54.2 54.4		54. 54.
Hoose Truckov EE 2 E2 9				46.0		54.4 62.3		54. 62.
Heavy Trucks: 55.2 53.8						o2.3		62.
Vehicle Noise: 63.4 61.6		58.7		00.0				
	70.0		65 d		6	0 dBA	55	dBA
Vehicle Noise: 63.4 61.6	70 0	dBA	65 d	BA	6	0 dBA 143		dBA

	FHV	VA-RD-77-108	HIGHWA	Y NOISE F	PREDICT	ION MODEL			
Road Nam	io: Cumulative ne: Corral Hollo nt: Btwn Linne	ow Road	o Rd			Name: Tracy umber: 8559	Hills		
SITE	SPECIFIC IN	IPUT DATA			M	IOISE MOD	EL INPUTS	5	
Highway Data				Site Co	nditions	(Hard = 10, S	Soft = 15)		
Average Daily	Traffic (Adt):	11,350 vehicle	s			Autos	: 15		
Peak Hour	Percentage:	10%		M	edium Tr	ucks (2 Axles)	): 15		
Peak H	lour Volume:	1,135 vehicle	s	H	eavy Tru	cks (3+ Axles,	): 15		
Ve	hicle Speed:	55 mph		Vehicle	Mix				
Near/Far La	ne Distance:	48 feet			hicleType	Day	Evening	Night	Daily
Site Data						Autos: 77.5	•	•	97.42%
		0.0 ()			, Aedium T			10.3%	1.84%
Ba Barrier Type (0-W	rrier Height:	0.0 feet 0.0		1 "	Heavy T			10.8%	
Centerline Di	. ,	0.0 100.0 feet			,			10.070	0.7 170
Centerline Dist.		100.0 feet		Noise S	Source E	levations (in	feet)		
Barrier Distance		0.0 feet			Auto				
Observer Height		5.0 feet		Medi	um Truck	s: 2.297			
	ad Elevation:	0.0 feet		Hea	vy Truck	s: 8.006	Grade Adj	ustment:	0.0
	ad Elevation:	0.0 feet		Lane E	guivalen	t Distance (in	(feet)		
	Road Grade:	0.0%			Auto				
	Left View:	-90.0 degre	20	Medi	um Truck				
	Right View:	90.0 degre			vy Truck				
FHWA Noise Mod	el Calculation	s							
VehicleType	REMEL	Traffic Flow	Distan	ce Finit	e Road	Fresnel	Barrier Atte	en Beri	m Atten
Autos:	71.78	-2.27	-	4.43	-1.20	-4.77	0.0	000	0.000
	82.40	-19.51		4.43	-1.20	-4.88	0.0	000	0.000
Medium Trucks:	02.40					1.00			
Heavy Trucks:	86.40	-23.47		4.43	-1.20	-5.16	0.0	000	0.000
Heavy Trucks: Unmitigated Nois	86.40 e Levels (with	out Topo and	barrier a	ttenuation	-1.20				
Heavy Trucks: Unmitigated Nois VehicleType	86.40	out Topo and Ir Leq Day	barrier a	ttenuation, q Evening	-1.20	-5.16 Night	Ldn	Ch	IEL
Heavy Trucks: Unmitigated Nois VehicleType Autos:	86.40 e Levels (with Leq Peak Hou 63	out Topo and Ir Leq Day .9	barrier a Le	ttenuation, q Evening 60.	-1.20	-5.16 Night 54.2	Ldn 62.8	C/	IEL 63.4
Heavy Trucks: Unmitigated Nois VehicleType Autos: Medium Trucks:	86.40 e Levels (with Leq Peak Hou 63 57	out Topo and r Leq Day .9 .3	barrier a / Le 62.0 55.8	ttenuation, q Evening 60. 49.	-1.20	-5.16 Night 54.2 47.9	Ldn 62.8 56.3	CN	IEL 63.4 56.5
Heavy Trucks: Unmitigated Nois VehicleType Autos:	86.40 e Levels (with Leq Peak Hou 63	out Topo and r Leq Day .9 .3	barrier a Le	ttenuation, q Evening 60.	-1.20	-5.16 Night 54.2	Ldn 62.8	CN	IEL 63.4 56.5
Heavy Trucks: Unmitigated Nois VehicleType Autos: Medium Trucks:	86.40 e Levels (with Leq Peak Hou 63 57 57	out Topo and Ir Leq Day .9 .3 .3	barrier a / Le 62.0 55.8	ttenuation, q Evening 60. 49.	-1.20 -1.20 Leq 2 4 3	-5.16 Night 54.2 47.9	Ldn 62.8 56.3	C/ 3	IEL 63.4 56.5 56.6
Heavy Trucks: Unmitigated Nois VehicleType Autos: Medium Trucks: Heavy Trucks:	86.40 e Levels (with Leg Peak Hou 63 57 57 57	out Topo and Ir Leq Day .9 .3 .3 .5	barrier a 2.0 55.8 55.9 63.7 )	ttenuation, q Evening 60. 49. 46. 60.	-1.20	-5.16 Night 54.2 47.9 48.1 55.9	Ldn 62.8 56.3 56.4 64.4	C/ 3 3	VEL 63.4 56.5 56.6 64.9
Heavy Trucks: Unmitigated Nois Vehicle Type Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	86.40 e Levels (with Leg Peak Hou 63 57 57 57	out Topo and r Leq Day .9 .3 .5 ontour (in feet	barrier a / Le 62.0 55.8 55.9 63.7 )	ttenuation, q Evening 60.: 49.: 46.: 60. 70 dBA	-1.20 Leq 2 4 3 7 65	-5.16 <u>Night</u> 54.2 47.9 48.1 55.9 dBA	Ldn 62.8 56.3 56.4 64.4 60 dBA	C/ 3 1 1 55	IEL 63.4 56.5 56.6 64.9 dBA
Heavy Trucks: Unmitigated Nois Vehicle Type Autos: Medium Trucks: Heavy Trucks: Vehicle Noise:	86.40 e Levels (with Leg Peak Hou 63 57 57 57	out Topo and r Leq Day .9 .3 .5 5 5 5 5 5 5 5 5 5 5 5 5 5	barrier a 2.0 55.8 55.9 63.7 )	ttenuation, q Evening 60. 49. 46. 60.	-1.20 Leq 2 4 3 7 65 5	-5.16 Night 54.2 47.9 48.1 55.9	Ldn 62.8 56.3 56.4 64.4	Ch 3 4 55 4	63.4 56.5 56.6 64.9

Wednesday, November 13, 2013

Wednesday, November 13, 2013

	FHW	/A-RD-77-108	HIGH	WAY N	OISE P	REDIC	TION MO	DEL			
Scenari	o: Cumulative					Projec	t Name:	Tracy	Hills		
Road Nam	e: Corral Hollo	w Road				Job I	Number:	8559			
Road Segmer	t: Btwn Valpic	o Rd and Sch	ulte Rd	ł							
	SPECIFIC IN	PUT DATA								S	
Highway Data				5	ite Cor	nditions	; (Hard =	., .	,		
Average Daily	, ,		s					Autos:	15		
	Percentage:	10%					rucks (2 /	/			
		1,580 vehicle	S		He	eavy Tru	icks (3+ /	Axles):	15		
	nicle Speed:	55 mph		v	ehicle	Mix					
Near/Far Lar	ne Distance:	48 feet			Veh	nicleTyp	е	Day	Evening	Night	Daily
Site Data							Autos:	77.5%	12.9%	9.6%	97.429
Rar	rier Height:	0.0 feet			М	ledium 1	rucks:	84.8%	4.9%	10.3%	5 1.849
Barrier Type (0-W	all, 1-Berm):	0.0			1	Heavy T	rucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dis		100.0 feet		٨	loise S	ource E	levation	s (in fe	eet)		
Centerline Dist. t		100.0 feet				Auto	os: 0.0	000	,		
Barrier Distance t	o Observer:	0.0 feet			Mediu	m Truck	(s: 2.)	297			
Observer Height (/	Above Pad):	5.0 feet			Heat	vy Truck	(S: 8.)	006	Grade Ad	iustmen	t: 0.0
	d Elevation:	0.0 feet									
	d Elevation:	0.0 feet		L	ane Eq		nt Distan		feet)		
F	Road Grade:	0.0%				Auto					
	Left View:	-90.0 degre				m Truck					
	Right View:	90.0 degre	es		Hear	vy Trucł	ks: 97.	124			
FHWA Noise Mode											
VehicleType	REMEL	Traffic Flow	Dist	tance		Road	Fresr		Barrier Att		rm Atten
Autos:	71.78	-0.84		-4.43		-1.20		-4.77	0.0		0.00
Medium Trucks:	82.40	-18.07		-4.43		-1.20		-4.88		000	0.00
Heavy Trucks:	86.40	-22.03		-4.43		-1.20		-5.16	0.0	000	0.00
Unmitigated Noise								1			
VehicleType Autos:	Leq Peak Hou	, ,	63.4	Leq Ev	<u> </u>		Night 55.6	<u> </u>	Ldn 64.2		NEL 64.
	65.	-			61.6					-	
Medium Trucks:	58.	-	57.2		50.8		49.3		57.7		58.
Heavy Trucks:	58.		57.3		48.3		49.5		57.9		58.
Vehicle Noise:	66.		65.1		62.2		57.3	5	65.9	9	66.
Centerline Distanc	e to Noise Co	ntour (in feet	)	70 d	RΔ	65	dBA		0 dBA	55	5 dBA
			Ldn:	53			14		246		529
		C	NFL:	57			23		240		569
		0	VLL.	57			20		204		,00

Scenario: Cumulative			Proiec	Name: Tracy	Hills	
Road Name: Lammers Road				lumber: 8559	1 1110	
Road Segment: Btwn Valpico Rd and	d Old Schult	e Rd	0007	0000		
SITE SPECIFIC INPUT D	ATA		-	OISE MODI	L INPUTS	;
Highway Data		S	ite Conditions	(Hard = 10, S	oft = 15)	
Average Daily Traffic (Adt): 28,200 v	ehicles			Autos	: 15	
Peak Hour Percentage: 10%			Medium Tr	ucks (2 Axles)	: 15	
Peak Hour Volume: 2,820 v	ehicles		Heavy Tru	cks (3+ Axles)	: 15	
Vehicle Speed: 55 m	nph		ehicle Mix			
Near/Far Lane Distance: 48 fe	et	V	VehicleType	e Dav	Constant	Night Daily
0/4- D-4-				Autos: 77.5%	Evening	9.6% 97.42
Site Data			Medium T			9.6% 97.42 10.3% 1.84
Barrier Height: 0.0	feet					
Barrier Type (0-Wall, 1-Berm): 0.0			Heavy T	rucks: 86.5%	6 2.7%	10.8% 0.74
Centerline Dist. to Barrier: 100.0 1		N	loise Source E	levations (in i	eet)	
Centerline Dist. to Observer: 100.0 1			Auto	s: 0.000		
Barrier Distance to Observer: 0.0 1			Medium Truck	s: 2.297		
Observer Height (Above Pad): 5.0 1			Heavy Truck	s: 8.006	Grade Adju	istment: 0.0
Pad Elevation: 0.0 1			,			
Road Elevation: 0.0 1		L	ane Equivalen		feet)	
Road Grade: 0.0%			Auto			
	degrees		Medium Truck			
Right View: 90.0	degrees		Heavy Truck	s: 97.124		
FHWA Noise Model Calculations						
VehicleType REMEL Traffic I	Flow Dis	tance	Finite Road	Fresnel	Barrier Atte	en Berm Atter
Autos: 71.78	1.68	-4.43		-4.77	0.0	0.00
Medium Trucks: 82.40 -	15.56	-4.43		-4.88	0.0	0.00
Heavy Trucks: 86.40 -	19.51	-4.43	-1.20	-5.16	0.0	0.00
Unmitigated Noise Levels (without Topo	o and barrie	er attenu	uation)			
VehicleType Leq Peak Hour Le	eq Day	Leq Ev	ening Leq	Night	Ldn	CNEL
Autos: 67.8	65.9		64.2	58.1	66.7	67
Medium Trucks: 61.2	59.7		53.3	51.8	60.3	
Heavy Trucks: 61.3	59.8		50.8	52.0	60.4	60
Vehicle Noise: 69.4	67.6		64.7	59.8	68.4	68
Centerline Distance to Noise Contour (in	n feet)					
		70 di			60 dBA	55 dBA
	Ldn:	78		68	361	778
	CNEL:	84	1	80	389	837

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL Project Name: Tracy Hills Job Number: 8559 Scenario: Cumulative Road Name: Corral Hollow Road Road Segment: North of Schulte Rd SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15) Highway Data Average Daily Traffic (Adt): 36,200 vehicles Peak Hour Percentage: 10% Autos: 15 Medium Trucks (2 Axles): 15 Peak Hour Volume: 3,620 vehicles Heavy Trucks (3+ Axles): 15 55 mph Vehicle Speed: Vehicle Mix Near/Far Lane Distance: 48 feet Day Evening Night Daily VehicleType Site Data Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Barrier Height: Barrier Type (0-Wall, 1-Berm): 0.0 feet Heavy Trucks: 86.5% 2.7% 10.8% 0.74% 0.0 Centerline Dist. to Barrier: Centerline Dist. to Observer: 100.0 feet Noise Source Elevations (in feet) 100.0 feet Autos: 0.000 Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297 Observer Height (Above Pad): 5.0 feet Grade Adjustment: 0.0 Heavy Trucks: 8.006 Pad Elevation: 0.0 feet Lane Equivalent Distance (in feet) Road Elevation: 0.0 feet Road Grade: Autos: 97.206 0.0% Medium Trucks: 97.115 Left View: -90.0 degrees Right View: Heavy Trucks: 97.124 90.0 degrees FHWA Noise Model Calculation MEL Traffic Flow Distance Finite Road VehicleType REMEL Autos: 71. Fresnel Barrier Atten Berm Atten -4.77 0.000 0.000 Medium Trucks: -1.20 82.40 -14.47 -4.43 -4.88 0.000 0.000 Heavy Trucks: 86.40 -18.43 -4.43 -1.20 -5.16 0.000 0.000 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour CNEL Leq Day Leq Evening Leq Night 67.0 65.2 55 Ldn 67.8 Autos 68.9 59.2 68.4 Medium Trucks: 62.3 60.8 54.4 52.9 61.3 61.6 Heavy Trucks: 62.3 60.9 51.9 53.1 61.5 61.6 Vehicle Noise: 70.5 68.7 65.8 60.9 69.5 69.9 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 92 198 427 919 CNEL: 99 213 459 989

	FHW	A-RD-77-108	HIGHWA	AY NO	ISE P	REDICTI	ON MODI	EL			
Scenar	io: Cumulative					Project	Name: Tr	acy Hill	s		
Road Nan	ne: Lammers Ro	ad				Job N	umber: 85	59			
Road Segme	nt: Btwn Old Scl	nulte Rd and E	leventh	St							
SITE	SPECIFIC INF	UT DATA					OISE MO			3	
Highway Data				Si	te Cor	ditions	(Hard = 1	0, Soft	= 15)		
Average Daily	Traffic (Adt): 30	,250 vehicles					AL	itos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 Ax	les):	15		
Peak H	lour Volume: 3	3,025 vehicles			He	avy Truc	ks (3+ Ax	les):	15		
Ve	hicle Speed:	55 mph		Ve	hicle	Mix					
Near/Far La	ne Distance:	48 feet		-		icleType	D	av E	vening	Night	Daily
Site Data							utos: 7		12.9%	9.6%	
Ba	rrier Heiaht:	0.0 feet			М	edium Tr	ucks: 84	4.8%	4.9%	10.3%	
Barrier Type (0-W		0.0			1	Heavy Tr	ucks: 86	6.5%	2.7%	10.8%	0.74%
		100.0 feet						(I K			
Centerline Dist.	to Observer:	100.0 feet		NC	orse S		evations		)		
Barrier Distance	to Observer:	0.0 feet				Autos					
Observer Height	(Above Pad):	5.0 feet				m Trucks			ade Adji	underso nd	
P	ad Elevation:	0.0 feet			Heav	/y Trucks	8.00	6 G/	aue Auji	usuneni	. 0.0
Ro	ad Elevation:	0.0 feet		La	ne Eq	uivalent	Distance	(in fee	t)		
	Road Grade:	0.0%				Autos	: 97.20	)6			
	Left View:	-90.0 degree	s		Mediu	m Trucks	: 97.11	5			
	Right View:	90.0 degree	s		Heav	/y Trucks	: 97.12	24			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Distan	се	Finite	Road	Fresnel	Ba	rrier Atte	en Ber	m Atten
Autos:	71.78	1.98	-	4.43		-1.20	-4	1.77	0.0	00	0.000
Medium Trucks:	82.40	-15.25		4.43		-1.20	-4	1.88	0.0	00	0.000
Heavy Trucks:	86.40	-19.21	-	4.43		-1.20	-5	5.16	0.0	00	0.000
Unmitigated Nois	e Levels (witho	ut Topo and I	barrier a	ttenua	ation)						
VehicleType	Leq Peak Hour	Leq Day	Le	q Eve	ning	Leq	Vight	Lo	dn	C	NEL
Autos:	68.1	6	6.2		64.5		58.4		67.0		67.6
Medium Trucks:	61.5	i 6	0.0		53.7		52.1		60.6		60.8
Heavy Trucks:	61.6	; 6	0.1		51.1		52.4		60.7		60.8
Vehicle Noise:	69.7	. 6	57.9		65.0		60.1		68.7		69.1
Centerline Distan	ce to Noise Cor	ntour (in feet)									
				70 dB	A	65 0	1BA	60 0	'BA	55	dBA
		L	dn:	82		17	6	37	'9	6	316
		CN	IEL:	88		18	39	40	)7	8	378

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Wednesday, November 13, 2013

	FHV	VA-RD-77-108 F	IIGHWAY	NOISE	PREDICTIO	N MODEL		
	<ul> <li>cumulative</li> <li>cumulative</li> <li>cummers R</li> <li>cummers R</li> <li>cummers R</li> </ul>	load			Project Na Job Num	ame: Tracy aber: 8559	Hills	
SITE S	<b>SPECIFIC IN</b>	PUT DATA			NO	ISE MOD	EL INPUT	S
Highway Data				Site Co	onditions (H	ard = 10, S	Soft = 15)	
	( )	16,900 vehicles 10% 1,690 vehicles 55 mph			ledium Truck leavy Trucks		: 15	
Near/Far Lar		36 feet		Vehicle	e Mix			
Near/Far Lar	le Distance:	36 feet		Ve	hicleType	Day	Evening	Night Da
Site Data					Aut			9.6% 97.4
Ban	rier Height:	0.0 feet		1	Medium Truc	ks: 84.8	% 4.9%	10.3% 1.8
Barrier Type (0-Wa	all, 1-Berm):	0.0			Heavy Truc	ks: 86.5	% 2.7%	10.8% 0.7
Centerline Dis	t. to Barrier:	100.0 feet		Noise	Source Elev	ations (in	foot)	
Barrier Distance t Observer Height (/ Pa Roa F FHWA Noise Mode	Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 feet Barrier Distance to Observer: 0.0 feet Dbserver Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 90.0 degrees Right View: 90.0 degrees					0.000 2.297 8.006 <b>istance (ir</b> 98.494 98.404 98.413	i feet)	iustment: 0.0
VehicleType Autos:	REMEL 71.78	Traffic Flow -0.54	Distance	52	e Road -1.20	Fresnel -4.77	Barrier Att	
Medium Trucks:	82.40	-0.54		.52	-1.20	-4.77		
Heavy Trucks:	86.40	-17.78		.51	-1.20	-4.00		
				-		-0.10	0.0	
Unmitigated Noise					-	-let	I da	01/5/
VehicleType Autos:	Leq Peak Hou 65		3.6	Evening 61.	Leq Nig	55.8	Ldn 64.4	CNEL
Autos: Medium Trucks:	58		3.6 7.4	51.	-	55.8 49.5	64.4 58.0	
Heavy Trucks:	58		7.4 7.5	48.		49.5	58.1	
Vehicle Noise:	50		7.5 5.3	40.	*	57.5	56.1 66.1	
			0.0	02.	•	01.0	50.	
Centerline Distanc	e to Noise Co	ontour (in feet)	7	) dBA	65 dB	Δ	60 dBA	55 dBA
		1.	dn:	55	05 dB 118	~	253	546
		CNI		55 59	118		253	546
		CN	_L.	53	127		213	100

	FHV	VA-RD-77-108 H	IIGHW	AY NO	DISE PR	EDICTIC	N MOI	DEL			
	Cumulative				1	Project N			Hills		
Road Name: Road Segment:						Job Nu	nber: a	5009			
SITE SP	ECIFIC IN	PUT DATA							L INPUT	s	
Highway Data				S	ite Cona	litions (F	lard =	10, Se	oft = 15)		
Average Daily Tra	ffic (Adt): 1	12,200 vehicles						Autos:	15		
Peak Hour Pe	rcentage:	10%			Med	ium Truc	ks (2 A	(xles):	15		
Peak Hour	Volume:	1,220 vehicles			Hea	vy Truck	s (3+ A	(xles):	15		
	le Speed:	55 mph		V	ehicle M	ix					
Near/Far Lane	Distance:	48 feet			Vehic	leType		Day	Evening	Night	Daily
Site Data						Au	itos:	77.5%	12.9%	9.6%	97.42
Barrie	r Height:	0.0 feet			Med	dium Tru	cks:	84.8%	4.9%	10.3%	1.84
Barrier Type (0-Wall,		0.0			He	eavy Tru	cks:	86.5%	2.7%	10.8%	0.74
Centerline Dist. t		100.0 feet			oise Sou	Irco Elo	vation	c (in f	0.0.1		
Centerline Dist. to (	Observer:	100.0 feet		14	uise sui	Autos:	0.0		eel)		
Barrier Distance to (	Observer:	0.0 feet			Modium	Trucks:					
Observer Height (Ab	ove Pad):	5.0 feet				Trucks:		006	Grade Ad	iustment	. 0.0
Pad I	Elevation:	0.0 feet			Tieavy	TTUCKS.	0.0	000	Oldde Aq	usunen	. 0.0
Road I	Elevation:	0.0 feet		L	ane Equ	ivalent L			feet)		
Roa	ad Grade:	0.0%				Autos:	97.2				
	eft View:	-90.0 degrees				Trucks:					
Ri	ght View:	90.0 degrees			Heavy	Trucks:	97.1	124			
FHWA Noise Model C	Calculation	-									
VehicleType	REMEL	Traffic Flow	Distan		Finite F		Fresn		Barrier Att		m Atter
Autos:	71.78	-1.96		-4.43		-1.20		-4.77		000	0.0
Medium Trucks:	82.40	-19.20		-4.43		-1.20		-4.88		000	0.0
Heavy Trucks:	86.40	-23.15		-4.43		-1.20		-5.16	0.0	000	0.0
Unmitigated Noise L											
	q Peak Hou			eq Eve	•	Leq N	•		Ldn		NEL
Autos:	64		2.3		60.5		54.5		63.		63
Medium Trucks:	57.		6.1 6.2		49.7 47.2		48.2		56.0		56
Heavy Trucks: Vehicle Noise:	57. 65.	-	5.2 1.0		47.2 61.0		48.4 56.2		56.8 64.1		56 65
			+.U		01.0		<b>5</b> 0.2		ъ4.	1	65
Centerline Distance	o Noíse Co	ontour (in feet)		70 dl	BA	65 dl	ЗА	6	60 dBA	55	dBA
		1	dn:	45		96		L `	207		45
			=1 :	48		103			222		79

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL Project Name: Tracy Hills Job Number: 8559 Scenario: Cumulative Road Name: Linne Road Road Segment: Btwn Corral Hollow Rd and Tracy Blvd SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15) Highway Data Average Daily Traffic (Adt): 16,450 vehicles Peak Hour Percentage: 10% Autos: 15 Medium Trucks (2 Axles): 15 Peak Hour Volume: 1,645 vehicles Heavy Trucks (3+ Axles): 15 55 mph Vehicle Speed: Vehicle Mix Near/Far Lane Distance: 48 feet Day Evening Night Daily VehicleType Site Data Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Barrier Height: Barrier Type (0-Wall, 1-Berm): 0.0 feet Heavy Trucks: 86.5% 2.7% 10.8% 0.74% 0.0 Centerline Dist. to Barrier: Centerline Dist. to Observer: 100.0 feet Noise Source Elevations (in feet) 100.0 feet Autos: 0.000 Barrier Distance to Observer: 0.0 feet Medium Trucks: 2.297 Observer Height (Above Pad): 5.0 feet Grade Adjustment: 0.0 Heavy Trucks: 8.006 Pad Elevation: 0.0 feet Lane Equivalent Distance (in feet) Road Elevation: 0.0 feet Road Grade: Autos: 97.206 0.0% Medium Trucks: 97.115 Left View: -90.0 degrees Right View: Heavy Trucks: 97.124 90.0 degrees FHWA Noise Model Calculation MEL Traffic Flow Distance Finite Road
71.78 -0.66 VehicleType REMEL Autos: 71. Fresnel Barrier Atten Berm Atten -4.77 0.000 0.000 -17.90 -1.20 Medium Trucks: 82.40 -4.43 -4.88 0.000 0.000 Heavy Trucks: 86.40 -21.86 -4.43 -1.20 -5.16 0.000 0.000 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour CNEL Leq Day Leq Evening Leq Night 63.6 61.8 55 Ldn 64.4 Autos 65.5 55.8 65.0 Medium Trucks: 49.5 58.9 57.4 51.0 57.9 58.2 Heavy Trucks: 58.9 57.5 18 5 107 58.1 58.2 Vehicle Noise: 67.1 65.3 62.3 57.5 66.0 66.5 Centerline Distance to Noise Contour (in feet) 70 dBA 65 dBA 60 dBA 55 dBA Ldn: 54 117 252 543 CNEL: 58 126 271 585

	FHV	VA-RD-77-108	HIGH	IWAY N	IOISE PI	REDICT	ON MO	DEL			
Scenar	io: Cumulative					Project	Name:	Tracy	Hills		
Road Nan	ne: Valpico Roa	ad				Job N	umber:	8559			
Road Segme	nt: Btwn Lamm	ers Rd and Co	orral H	Iollow R	d						
	SPECIFIC IN	PUT DATA							L INPUT	5	
Highway Data				5	Site Con	ditions	(Hard =	10, So	oft = 15)		
Average Daily	Traffic (Adt): 1	2,250 vehicle	s					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tri	icks (2 /	Axles):	15		
Peak H	lour Volume:	1,225 vehicle	s		He	avy Tru	cks (3+ /	Axles):	15		
Ve	hicle Speed:	55 mph		1	Vehicle	Mix					
Near/Far La	ne Distance:	48 feet		E		icleTvpe		Day	Evening	Night	Daily
Site Data								77.5%	•		97.42%
0-		0.0 feet			M	edium Ti		84.8%		10.3%	
ва Barrier Type (0-И	rrier Height:	0.0 feet				Heavy T	ucks:	86.5%	2.7%	10.8%	
Centerline Di	. ,	100.0 feet									
Centerline Dist.		100.0 feet		r	Voise So	ource El	evation	s (in fe	eet)		
Barrier Distance		0.0 feet				Auto		000			
Observer Height		5.0 feet				m Truck		297			
	ad Elevation:	0.0 feet			Heav	y Truck	s: 8.	006	Grade Adj	ustment	: 0.0
	ad Elevation:	0.0 feet		1	ane Eq	uivalen	Distan	ce (in	feet)		
	Road Grade:	0.0%		-		Auto		206			
	Left View:	-90.0 degre	ae ae		Mediu	m Truck		115			
	Right View:	90.0 degre				v Truck		124			
		oolo doglo	50			,					
FHWA Noise Mod		-									
VehicleType	REMEL	Traffic Flow	Dis	stance		Road	Fresr		Barrier Att		m Atten
Autos:	71.78	-1.94		-4.43		-1.20		-4.77	0.0		0.000
Medium Trucks:		-19.18		-4.43		-1.20		-4.88	0.0		0.000
Heavy Trucks:	86.40	-23.14		-4.43	3	-1.20		-5.16	0.0	000	0.000
Unmitigated Nois		<u> </u>									
VehicleType	Leq Peak Hou			Leq Ev		Leq	Night		Ldn		NEL
Autos:	64.	-	62.3		60.5		54.5	-	63.1		63.7
Medium Trucks:	57.	-	56.1		49.7		48.2	-	56.6		56.9
Heavy Trucks:	57.	.6	56.2		47.2		48.4	ł	56.8	3	56.9
Vehicle Noise:	65	.8	64.0		61.1		56.2	2	64.7	,	65.2
Centerline Distan	ce to Noise Co	ontour (in feet	)								
				70 a			dBA	6	i0 dBA		dBA
			Ldn:	45			6		207		46
		C	VEL:	48	В	1	03		223	4	80

Wednesday, November 13, 2013

Wednesday, November 13, 2013

	FH	WA-RD-77-108	HIGH	NAY NO	DISE PI	REDICTI	ON MO	DEL				
	2: Cumulative 2: Valpico Ro 2: Btwn Corra	ad	d Tracy	/ Blvd		Project I Job Nu	Name: Imber:		Hills			
		NPUT DATA							L INPUT	s		
Highway Data				S	ite Con	ditions (	'Hard =	10, So	oft = 15)			
Average Daily 7	raffic (Adt):	18,050 vehicle	s		Autos: 15							
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15							
Peak Hour Volume: 1,805 vehicles					Heavy Trucks (3+ Axles): 15							
Vehicle Speed: 55 mph					ehicle	Mix						
Near/Far Lane Distance: 48 feet			Ē	Veh	icleType		Day	Evening	Night	Daily		
Site Data						A	utos:	77.5%	12.9%	9.6%	97.429	
Bari	rier Height:	0.0 feet			M	edium Tri	ucks:	84.8%	4.9%	10.3%	1.849	
Barrier Type (0-Wa	•	0.0			ŀ	leavy Tr	ucks:	86.5%	2.7%	10.8%	0.74	
Centerline Dist. to Barrier: 100.0 feet					oise Sr	ource Ele	vation	s (in fi	pet)			
Centerline Dist. to Observer: 100.0 feet				-	0.00 00	Autos		000	,01)			
Barrier Distance to Observer: 0.0 feet					Mediu	m Trucks		297				
Observer Height (Above Pad): 5.0 feet						v Trucks		006	Grade Ad	justmen	t: 0.0	
	d Elevation:	0.0 feet		_		,	-					
Road Elevation: 0.0 feet				L	Lane Equivalent Distance (in feet)							
Road Grade: 0.0%					Autos: 97.206							
Left View: -90.0 degrees				Medium Trucks: 97.115 Heavy Trucks: 97.124								
	Right View:	90.0 degre	es		Heav	y Trucks	: 97.	124				
FHWA Noise Mode	I Calculation	IS										
VehicleType	REMEL	Traffic Flow		ance		Road	Fresr	-	Barrier Att		rm Atter	
Autos:	71.78			-4.43		-1.20		-4.77		000	0.00	
Medium Trucks:	82.40			-4.43		-1.20		-4.88		000	0.00	
Heavy Trucks:	86.40			-4.43		-1.20		-5.16	0.0	000	0.00	
Unmitigated Noise								1		-		
	Leq Peak Ho			Leq Eve	· ·	Leq I	· ·		Ldn		NEL	
Autos:			64.0 57.8					-	64.8 58.3		65 58.	
Medium Trucks:					51.4 48.9		49.9 50.1		58.		58.0	
Vehicle Noise: 67.5			57.9		48.9		50.1		58.	-	58. 66.	
· 0///0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/					52.0		07.0		00.	•	00	
Contorlino Dist			9									
Centerline Distanc	e lo Noise C	ontour (mrioo		70 dł	BA	65 0	1BA	e	60 dBA	.55	dBA	
Centerline Distanc	e to Noise C		Ldn:	70 dł 58		65 c 12		e	0 dBA 268		6 dBA	

F	HWA-RD-7	7-108 HIG	SHWAY	NOISE P	REDICTIO	N MODEL				
Scenario: Cumulative				Project Name: Tracy Hills						
Road Name: Valpico Road				Job Number: 8559						
Road Segment: East of T	racy Blvd									
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS Site Conditions (Hard = 10, Soft = 15)						
Highway Data				Site Cor	nditions (H					
Average Daily Traffic (Adt)		ehicles				Autos				
Peak Hour Percentage: 10%				Medium Trucks (2 Axles): 15						
Peak Hour Volume				He	eavy Truck	s (3+ Axles)	: 15			
Vehicle Speed: 55 mph				Vehicle Mix						
Near/Far Lane Distance: 48 feet				Veh	icleType	Day	Evening	Night	Daily	
Site Data					Au	tos: 77.5%	6 12.9%	9.6%	97.429	
Barrier Height	: 0.0 f	eet		М	edium Tru	ks: 84.8%	6 4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Berm)	: 0.0			1	Heavy Tru	cks: 86.5%	6 2.7%	10.8%	0.74%	
Centerline Dist. to Barrier: 100.0 feet				Noise S	ource Elev	ations (in i	eet)			
Centerline Dist. to Observer		eet			Autos:	0.000	,			
Barrier Distance to Observer		eet		Mediu	m Trucks:	2.297				
Observer Height (Above Pad)		eet		Hear	v Trucks:	8.006	Grade Adju	ustment:	0.0	
Pad Elevation										
Road Elevation: 0.0 fee				Lane Eq		istance (in	feet)			
Road Grade	0.070				Autos:	97.206				
Left View		degrees			m Trucks:	97.115				
Right View	: 90.0 d	degrees		Hear	vy Trucks:	97.124				
FHWA Noise Model Calculati										
VehicleType REMEL	Traffic F		Distance		Road	Fresnel	Barrier Atte		m Atten	
Autos: 71.7	-	0.17	-4.		-1.20	-4.77	0.00		0.00	
Medium Trucks: 82.4		17.07	-4.		-1.20	-4.88	0.00		0.00	
Heavy Trucks: 86.4	-	21.03	-4.		-1.20	-5.16	0.00	00	0.00	
Unmitigated Noise Levels (with VehicleType Leg Peak H		o and ban og Day		nuation) Evening	Leg Ni	- h t	l dn	0	IFI	
,	66.3	4 Day 64.4	,	=verning 62.6		56.6	65.2	Cr	65.	
	59.7	58.2		51.8		50.3	58.7		59.	
	00.1		-	49.3		50.5	58.9		59.	
	50 7	58 3					66.9			
Heavy Trucks:	59.7 67.9	58.3 66.1		63.2		58.3	66.9		67.	
Heavy Trucks:	67.9	66.1		63.2		58.3	66.9		67.	
Heavy Trucks: Vehicle Noise:	67.9	66.1	 	63.2 dBA	65 dE		66.9 60 dBA		67. dBA	
Heavy Trucks: Vehicle Noise:	67.9	66.1	70			BA		55	67.: dBA 17	