FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Harbor Blvd
Segment: Trask Ave to Westminster Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	49,123
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2899	72	18	2224	55	14	688	17	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.8	-13.3	-19.3	1.6	-14.4	-20.5	-3.5	-19.5	-25.5
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.0	60.2	58.7	66.8	59.0	57.5	61.7	54.0	52.5
VEHICULAR NOISE	DAY=	69.1	Leq	EVENING=	67.9	Leq	NIGHT=	62.8	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.8**
			CNEL=	**71.4**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**113**	**243**	**524**
	CNEL:	**123**	**266**	**572**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Harbor Blvd
Segment: Westminster Ave to Hazard Ave
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	46,044
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2717	67	17	2084	52	13	645	16	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.5	-13.6	-19.6	1.4	-14.7	-20.7	-3.7	-19.8	-25.8
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.7	59.9	58.4	66.6	58.8	57.3	61.5	53.7	52.2
VEHICULAR NOISE	DAY=	68.8	Leq	EVENING=	67.6	Leq	NIGHT=	62.5	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.5**
			CNEL=	**71.1**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**108**	**233**	**502**
	CNEL:	**118**	**254**	**548**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Harbor Blvd
Segment: Hazard Ave to First St

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	47,651
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2812	70	17	2157	53	13	668	17	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.7	-13.4	-19.4	1.5	-14.6	-20.6	-3.6	-19.7	-25.7
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.9	60.1	58.6	66.7	58.9	57.4	61.6	53.8	52.3
VEHICULAR NOISE	DAY=	68.9	Leq	EVENING=	67.8	Leq	NIGHT=	62.7	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.7**
			CNEL=	**71.2**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**111**	**239**	**514**
	CNEL:	**121**	**260**	**561**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Harbor Blvd
Segment: First St to McFadden Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	47,014
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2774	69	17	2128	53	13	659	16	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.6	-13.5	-19.5	1.4	-14.6	-20.6	-3.7	-19.7	-25.7
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.7	60.0	58.5	66.6	58.8	57.3	61.5	53.7	52.2
VEHICULAR NOISE	DAY=	68.8	Leq	EVENING=	67.7	Leq	NIGHT=	62.6	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.6**
			CNEL=	**71.1**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**109**	**234**	**505**
	CNEL:	**119**	**256**	**551**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Harbor Blvd
Segment: McFadden Ave to Edinger Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	45,385
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2678	66	17	2054	51	13	636	16	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.4	-13.6	-19.6	1.3	-14.8	-20.8	-3.8	-19.9	-25.9
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.6	59.8	58.3	66.4	58.7	57.1	61.3	53.6	52.1
VEHICULAR NOISE	DAY=	68.7	Leq	EVENING=	67.5	Leq	NIGHT=	62.4	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.4**
			CNEL=	**71.0**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**106**	**229**	**493**
	CNEL:	**116**	**250**	**538**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Harbor Blvd
Segment: Edinger Ave to Warner Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	40,832
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2409	60	15	1848	46	11	572	14	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.0	-14.1	-20.1	0.8	-15.2	-21.3	-4.3	-20.3	-26.3
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.1	59.3	57.8	66.0	58.2	56.7	60.9	53.1	51.6
VEHICULAR NOISE	DAY=	68.2	Leq	EVENING=	67.1	Leq	NIGHT=	62.0	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.9**
			CNEL=	**70.5**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**99**	**213**	**460**
	CNEL:	**108**	**233**	**502**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Harbor Blvd
Segment: Segerstrom Ave to MacArthur Blvc
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	40,403
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2384	59	15	1829	45	11	566	14	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.9	-14.1	-20.2	0.8	-15.3	-21.3	-4.3	-20.4	-26.4
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.1	59.3	57.8	65.9	58.1	56.6	60.8	53.1	51.6
VEHICULAR NOISE	DAY=	68.2	Leq	EVENING=	67.0	Leq	NIGHT=	61.9	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.9**
			CNEL=	**70.5**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**98**	**212**	**457**
	CNEL:	**107**	**231**	**498**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Westminster Ave
Segment: Newhope St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	25,111
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	68
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1482	37	9	1137	28	7	352	9	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.1	-16.2	-22.2	-1.3	-17.3	-23.4	-6.4	-22.4	-28.5
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.0	57.2	55.7	63.8	56.1	54.6	58.7	51.0	49.5
VEHICULAR NOISE	DAY=	66.1	Leq	EVENING=	64.9	Leq	NIGHT=	59.8	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**67.8**
			CNEL=	**68.4**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**71**	**154**	**331**
	CNEL:	**78**	**168**	**361**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Westminster Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	29,244
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	68
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1726	43	11	1324	33	8	410	10	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	1.0	-15.0	-21.0	-0.1	-16.2	-22.2	-5.2	-21.3	-27.3
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	64.2	57.1	55.9	63.0	55.9	54.7	57.9	50.8	49.7
VEHICULAR NOISE	DAY=	65.5	Leq	EVENING=	64.3	Leq	NIGHT=	59.2	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**67.2**
			CNEL=	**67.8**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**65**	**140**	**301**
	CNEL:	**71**	**153**	**329**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: 1st Street
Segment: Newhope St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	25,568
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1509	37	9	1157	29	7	358	9	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	0.5	-15.6	-21.6	-0.7	-16.8	-22.8	-5.8	-21.9	-27.9
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	63.7	56.6	55.4	62.5	55.4	54.2	57.4	50.3	49.1
VEHICULAR NOISE	DAY=	65.0	Leq	EVENING=	63.8	Leq	NIGHT=	58.7	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**66.7**
			CNEL=	**67.2**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**60**	**129**	**279**
	CNEL:	**66**	**141**	**304**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: 1st Street
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	30,221
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1783	44	11	1368	34	8	423	10	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.7	-15.4	-21.4	-0.5	-16.5	-22.6	-5.6	-21.6	-27.7
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.9	58.1	56.6	64.7	56.9	55.4	59.6	51.8	50.3
VEHICULAR NOISE	DAY=	67.0	Leq	EVENING=	65.8	Leq	NIGHT=	60.7	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**68.7**
			CNEL=	**69.3**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**82**	**176**	**379**
	CNEL:	**89**	**192**	**414**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: McFadden Ave
Segment: Newhope St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	14,539
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	858	21	5	658	16	4	204	5	1
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-2.5	-18.6	-24.6	-3.7	-19.7	-25.7	-8.7	-24.8	-30.8
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.4	54.6	53.1	61.3	53.5	52.0	56.2	48.4	46.9
VEHICULAR NOISE	DAY=	63.5	Leq	EVENING=	62.4	Leq	NIGHT=	57.3	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 65.2** **CNEL= 65.8**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**48**	**104**	**223**
	CNEL:	**53**	**113**	**244**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: McFadden Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	19,044
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1124	28	7	862	21	5	267	7	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-1.3	-17.4	-23.4	-2.5	-18.5	-24.6	-7.6	-23.6	-29.7
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	63.6	55.8	54.3	62.5	54.7	53.2	57.4	49.6	48.1
VEHICULAR NOISE	DAY=	64.7	Leq	EVENING=	63.5	Leq	NIGHT=	58.4	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**66.4**
			CNEL=	**67.0**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**58**	**124**	**268**
	CNEL:	**63**	**135**	**292**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Edinger Ave
Segment: Newhope Ave to Harbor Blvd
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	20,407
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	54
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1204	30	7	924	23	6	286	7	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	-0.5	-16.6	-22.6	-1.7	-17.7	-23.8	-6.8	-22.8	-28.9
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.5	55.4	54.2	61.3	54.2	53.0	56.2	49.1	47.9
VEHICULAR NOISE	DAY=	63.7	Leq	EVENING=	62.6	Leq	NIGHT=	57.5	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 65.5** **CNEL= 66.0**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**50**	**107**	**231**
	CNEL:	**54**	**117**	**253**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: EXISTING
Roadway: Edinger Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	28,992
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	42
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1711	42	11	1312	32	8	406	10	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	1.0	-15.1	-21.1	-0.1	-16.2	-22.2	-5.2	-21.3	-27.3
Distance	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	63.9	56.8	55.6	62.7	55.6	54.5	57.6	50.5	49.4
VEHICULAR NOISE	DAY=	65.2	Leq	EVENING=	64.0	Leq	NIGHT=	58.9	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 66.9**, **CNEL= 67.5**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**62**	**134**	**288**
	CNEL:	**68**	**146**	**314**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Harbor Blvd
Segment: Trask Ave to Westminster Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	44,687
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2637	65	16	2023	50	13	626	15	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.4	-13.7	-19.7	1.2	-14.8	-20.9	-3.9	-19.9	-26.0
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.6	59.8	58.3	66.4	58.6	57.1	61.3	53.5	52.0
VEHICULAR NOISE	DAY=	68.7	Leq	EVENING=	67.5	Leq	NIGHT=	62.4	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.4**
			CNEL=	**71.0**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**106**	**229**	**492**
	CNEL:	**116**	**249**	**537**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Harbor Blvd
Segment: Westminster Ave to Hazard Ave
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	40,641
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2398	59	15	1840	46	11	569	14	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.0	-14.1	-20.1	0.8	-15.3	-21.3	-4.3	-20.3	-26.4
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.2	59.4	57.9	66.0	58.2	56.7	60.9	53.1	51.6
VEHICULAR NOISE	DAY=	68.3	Leq	EVENING=	67.1	Leq	NIGHT=	62.0	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.0**
			CNEL=	**70.5**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**100**	**215**	**462**
	CNEL:	**109**	**234**	**504**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Harbor Blvd
Segment: Hazard Ave to First St

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	42,749
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2523	62	16	1935	48	12	599	15	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.2	-13.9	-19.9	1.0	-15.0	-21.1	-4.1	-20.1	-26.2
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.4	59.6	58.1	66.2	58.4	56.9	61.1	53.4	51.9
VEHICULAR NOISE	DAY=	68.5	Leq	EVENING=	67.3	Leq	NIGHT=	62.2	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.2**
			CNEL=	**70.8**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**103**	**222**	**478**
	CNEL:	**112**	**242**	**521**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Harbor Blvd
Segment: First St to McFadden Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	44,443
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2623	65	16	2012	50	12	623	15	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.3	-13.7	-19.7	1.2	-14.9	-20.9	-3.9	-20.0	-26.0
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.5	59.7	58.2	66.3	58.6	57.1	61.3	53.5	52.0
VEHICULAR NOISE	DAY=	68.6	Leq	EVENING=	67.4	Leq	NIGHT=	62.3	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 70.3**, **CNEL= 70.9**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**105**	**226**	**487**
	CNEL:	**114**	**246**	**531**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Harbor Blvd
Segment: McFadden Ave to Edinger Ave
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	45,349
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2676	66	17	2053	51	13	635	16	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.4	-13.6	-19.6	1.3	-14.8	-20.8	-3.8	-19.9	-25.9
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.6	59.8	58.3	66.4	58.6	57.1	61.3	53.6	52.1
VEHICULAR NOISE	DAY=	68.7	Leq	EVENING=	67.5	Leq	NIGHT=	62.4	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.4**
			CNEL=	**71.0**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**106**	**229**	**493**
	CNEL:	**116**	**250**	**538**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Harbor Blvd
Segment: Edinger Ave to Warner Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	39,552
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2334	58	14	1790	44	11	554	14	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.8	-14.2	-20.2	0.7	-15.4	-21.4	-4.4	-20.5	-26.5
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.0	59.2	57.7	65.8	58.1	56.6	60.7	53.0	51.5
VEHICULAR NOISE	DAY=	68.1	Leq	EVENING=	66.9	Leq	NIGHT=	61.8	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.8**
			CNEL=	**70.4**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**97**	**209**	**450**
	CNEL:	**106**	**228**	**491**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Harbor Blvd
Segment: Segerstrom Ave to MacArthur Blvc
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	35,941
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2121	52	13	1627	40	10	504	12	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.4	-14.6	-20.7	0.3	-15.8	-21.8	-4.8	-20.9	-26.9
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	66.6	58.8	57.3	65.4	57.6	56.1	60.3	52.5	51.0
VEHICULAR NOISE	DAY=	67.7	Leq	EVENING=	66.5	Leq	NIGHT=	61.4	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.4**
			CNEL=	**70.0**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**91**	**196**	**422**
	CNEL:	**99**	**214**	**461**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Westminster Ave
Segment: Newhope St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	26,594
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	68
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1569	39	10	1204	30	7	373	9	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.1	-15.9	-22.0	-1.0	-17.1	-23.1	-6.1	-22.2	-28.2
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.2	57.5	56.0	64.1	56.3	54.8	59.0	51.2	49.7
VEHICULAR NOISE	DAY=	66.3	Leq	EVENING=	65.2	Leq	NIGHT=	60.1	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 68.1**, **CNEL= 68.6**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**74**	**160**	**344**
	CNEL:	**81**	**174**	**375**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Westminster Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	26,526
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	68
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1565	39	10	1201	30	7	372	9	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	0.6	-15.4	-21.5	-0.5	-16.6	-22.6	-5.6	-21.7	-27.7
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	63.8	56.6	55.5	62.6	55.5	54.3	57.5	50.4	49.2
VEHICULAR NOISE	DAY=	65.0	Leq	EVENING=	63.9	Leq	NIGHT=	58.8	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**66.8**
			CNEL=	**67.3**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**61**	**131**	**282**
	CNEL:	**66**	**143**	**308**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: 1st Street
Segment: Newhope St to Harbor Blvd
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	24,887
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1469	36	9	1127	28	7	349	9	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	0.3	-15.7	-21.7	-0.8	-16.9	-22.9	-5.9	-22.0	-28.0
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	63.6	56.4	55.3	62.4	55.3	54.1	57.3	50.2	49.0
VEHICULAR NOISE	DAY=	64.8	Leq	EVENING=	63.7	Leq	NIGHT=	58.6	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**66.6**
			CNEL=	**67.1**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**59**	**127**	**274**
	CNEL:	**64**	**139**	**299**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: 1st Street
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	30,343
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1790	44	11	1374	34	8	425	11	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	0.7	-15.4	-21.4	-0.5	-16.5	-22.5	-5.6	-21.6	-27.6
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.9	58.1	56.6	64.7	57.0	55.5	59.7	51.9	50.4
VEHICULAR NOISE	DAY=	67.0	Leq	EVENING=	65.8	Leq	NIGHT=	60.7	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**68.7**
			CNEL=	**69.3**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**82**	**177**	**380**
	CNEL:	**89**	**193**	**415**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: McFadden Ave
Segment: Newhope St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	14,194
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	838	21	5	643	16	4	199	5	1
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-2.6	-18.7	-24.7	-3.8	-19.8	-25.8	-8.9	-24.9	-30.9
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.3	54.5	53.0	61.2	53.4	51.9	56.1	48.3	46.8
VEHICULAR NOISE	DAY=	63.4	Leq	EVENING=	62.3	Leq	NIGHT=	57.2	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 65.1** **CNEL= 65.7**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**47**	**102**	**220**
	CNEL:	**52**	**111**	**240**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: McFadden Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	16,345
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	964	24	6	740	18	5	229	6	1
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-2.0	-18.1	-24.1	-3.1	-19.2	-25.2	-8.2	-24.3	-30.3
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.9	55.2	53.7	61.8	54.0	52.5	56.7	48.9	47.4
VEHICULAR NOISE	DAY=	64.0	Leq	EVENING=	62.9	Leq	NIGHT=	57.8	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**65.7**
			CNEL=	**66.3**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**52**	**112**	**242**
	CNEL:	**57**	**122**	**264**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Edinger Ave
Segment: Newhope Ave to Harbor Blvd
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	20,720
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	54
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1223	30	8	938	23	6	290	7	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	-0.5	-16.5	-22.5	-1.6	-17.7	-23.7	-6.7	-22.8	-28.8
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.5	55.4	54.2	61.4	54.3	53.1	56.3	49.2	48.0
VEHICULAR NOISE	DAY=	63.8	Leq	EVENING=	62.7	Leq	NIGHT=	57.6	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 65.5**, **CNEL= 66.1**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**50**	**109**	**234**
	CNEL:	**55**	**118**	**255**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 NP
Roadway: Edinger Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	33,761
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	42
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1992	49	12	1528	38	9	473	12	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	1.7	-14.4	-20.4	0.5	-15.6	-21.6	-4.6	-20.6	-26.7
Distance	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	64.6	57.4	56.3	63.4	56.3	55.1	58.3	51.2	50.0
VEHICULAR NOISE	DAY=	65.8	Leq	EVENING=	64.7	Leq	NIGHT=	59.6	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**67.6**
			CNEL=	**68.1**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**69**	**148**	**319**
	CNEL:	**75**	**161**	**348**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Harbor Blvd
Segment: Trask Ave to Westminster Ave
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	43,346
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2558	63	16	1962	49	12	607	15	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.2	-13.8	-19.8	1.1	-15.0	-21.0	-4.0	-20.1	-26.1
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.4	59.7	58.2	66.3	58.5	57.0	61.2	53.4	51.9
VEHICULAR NOISE	DAY=	68.5	Leq	EVENING=	67.4	Leq	NIGHT=	62.3	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.3**
			CNEL=	**70.8**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**104**	**224**	**482**
	CNEL:	**113**	**244**	**526**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Harbor Blvd
Segment: Westminster Ave to Hazard Ave
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	38,104
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2248	56	14	1725	43	11	534	13	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.7	-14.4	-20.4	0.5	-15.5	-21.6	-4.6	-20.6	-26.6
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	66.9	59.1	57.6	65.7	57.9	56.4	60.6	52.9	51.4
VEHICULAR NOISE	DAY=	68.0	Leq	EVENING=	66.8	Leq	NIGHT=	61.7	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.7**
			CNEL=	**70.3**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**95**	**205**	**443**
	CNEL:	**104**	**224**	**483**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Harbor Blvd
Segment: Hazard Ave to First St

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	39,531
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2333	58	14	1789	44	11	554	14	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.8	-14.2	-20.2	0.7	-15.4	-21.4	-4.4	-20.5	-26.5
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.0	59.3	57.8	65.9	58.1	56.6	60.8	53.0	51.5
VEHICULAR NOISE	DAY=	68.1	Leq	EVENING=	67.0	Leq	NIGHT=	61.9	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.9**
			CNEL=	**70.4**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**98**	**211**	**454**
	CNEL:	**107**	**230**	**495**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Harbor Blvd
Segment: First St to McFadden Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	45,453
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2682	66	17	2058	51	13	637	16	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.4	-13.6	-19.6	1.3	-14.8	-20.8	-3.8	-19.9	-25.9
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.6	59.8	58.3	66.4	58.7	57.2	61.4	53.6	52.1
VEHICULAR NOISE	DAY=	68.7	Leq	EVENING=	67.5	Leq	NIGHT=	62.4	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.4**
			CNEL=	**71.0**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**106**	**229**	**494**
	CNEL:	**116**	**250**	**539**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Harbor Blvd
Segment: McFadden Ave to Edinger Ave
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	49,329
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2911	72	18	2233	55	14	691	17	4
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	2.8	-13.3	-19.3	1.7	-14.4	-20.4	-3.4	-19.5	-25.5
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.0	60.2	58.7	66.8	59.0	57.5	61.7	53.9	52.4
VEHICULAR NOISE	DAY=	69.0	Leq	EVENING=	67.9	Leq	NIGHT=	62.8	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**70.8**
			CNEL=	**71.3**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**112**	**242**	**522**
	CNEL:	**123**	**264**	**569**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Harbor Blvd
Segment: Edinger Ave to Warner Ave

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	40,131
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2368	59	15	1817	45	11	562	14	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.9	-14.2	-20.2	0.8	-15.3	-21.3	-4.3	-20.4	-26.4
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	67.1	59.3	57.8	65.9	58.1	56.6	60.8	53.0	51.5
VEHICULAR NOISE	DAY=	68.1	Leq	EVENING=	67.0	Leq	NIGHT=	61.9	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.9**
			CNEL=	**70.4**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**98**	**211**	**455**
	CNEL:	**107**	**230**	**496**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Harbor Blvd
Segment: Segerstrom Ave to MacArthur Blvc
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	38,577
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2276	56	14	1746	43	11	541	13	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.7	-14.3	-20.4	0.6	-15.5	-21.5	-4.5	-20.6	-26.6
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	66.9	59.1	57.6	65.7	57.9	56.4	60.6	52.9	51.4
VEHICULAR NOISE	DAY=	68.0	Leq	EVENING=	66.8	Leq	NIGHT=	61.7	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.7**
			CNEL=	**70.3**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**95**	**205**	**443**
	CNEL:	**104**	**224**	**483**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Westminster Ave
Segment: Newhope St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	25,390
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	68
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1498	37	9	1149	28	7	356	9	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.1	-16.1	-22.2	-1.2	-17.3	-23.3	-6.3	-22.4	-28.4
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.0	57.3	55.8	63.9	56.1	54.6	58.8	51.0	49.5
VEHICULAR NOISE	DAY=	66.1	Leq	EVENING=	65.0	Leq	NIGHT=	59.9	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**67.8**
			CNEL=	**68.4**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**72**	**155**	**334**
	CNEL:	**78**	**169**	**364**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Westminster Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	26,172
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	68
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1544	38	10	1185	29	7	367	9	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	0.6	-15.5	-21.5	-0.6	-16.7	-22.7	-5.7	-21.7	-27.8
Distance	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	63.7	56.6	55.4	62.5	55.4	54.3	57.5	50.3	49.2
VEHICULAR NOISE	DAY=	65.0	Leq	EVENING=	63.8	Leq	NIGHT=	58.7	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 66.7**, **CNEL= 67.3**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**60**	**130**	**280**
	CNEL:	**66**	**142**	**305**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: 1st Street
Segment: Newhope St to Harbor Blvd
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	27,303
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1611	40	10	1236	31	8	383	9	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	0.7	-15.3	-21.3	-0.4	-16.5	-22.5	-5.5	-21.6	-27.6
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	64.0	56.9	55.7	62.8	55.7	54.5	57.7	50.6	49.4
VEHICULAR NOISE	DAY=	65.2	Leq	EVENING=	64.1	Leq	NIGHT=	59.0	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**67.0**
			CNEL=	**67.5**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**63**	**135**	**291**
	CNEL:	**68**	**148**	**318**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: 1st Street
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	33,065
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	74
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1951	48	12	1497	37	9	463	11	3
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	1.1	-15.0	-21.0	-0.1	-16.2	-22.2	-5.2	-21.2	-27.3
Distance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	66.3	58.5	57.0	65.1	57.3	55.8	60.0	52.2	50.7
VEHICULAR NOISE	DAY=	67.4	Leq	EVENING=	66.2	Leq	NIGHT=	61.1	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**69.1**
			CNEL=	**69.6**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**87**	**187**	**403**
	CNEL:	**95**	**204**	**439**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: McFadden Ave
Segment: Newhope St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	16,332
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	964	24	6	739	18	5	229	6	1
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-2.0	-18.1	-24.1	-3.1	-19.2	-25.2	-8.2	-24.3	-30.3
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.9	55.1	53.6	61.8	54.0	52.5	56.7	48.9	47.4
VEHICULAR NOISE	DAY=	64.0	Leq	EVENING=	62.9	Leq	NIGHT=	57.8	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**65.7**
			CNEL=	**66.3**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**52**	**112**	**241**
	CNEL:	**57**	**122**	**263**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: McFadden Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	13,658
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA

	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	806	20	5	618	15	4	191	5	1
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-2.8	-18.8	-24.9	-3.9	-20.0	-26.0	-9.0	-25.1	-31.1
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.2	54.4	52.9	61.0	53.2	51.7	55.9	48.1	46.6
VEHICULAR NOISE	DAY=	63.2	Leq	EVENING=	62.1	Leq	NIGHT=	57.0	Leq

RESULTS

NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA): **Ldn= 65.0** **CNEL= 65.5**

NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**46**	**99**	**214**
	CNEL:	**50**	**109**	**234**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Edinger Ave
Segment: Newhope Ave to Harbor Blvd
Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	21,057
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	54
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1243	31	8	953	24	6	295	7	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	-0.4	-16.4	-22.5	-1.5	-17.6	-23.6	-6.6	-22.7	-28.7
Distance	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.6	55.5	54.3	61.5	54.3	53.2	56.4	49.2	48.1
VEHICULAR NOISE	DAY=	63.9	Leq	EVENING=	62.7	Leq	NIGHT=	57.6	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**65.6**
			CNEL=	**66.2**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**51**	**110**	**236**
	CNEL:	**56**	**120**	**258**

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: 2035 WP
Roadway: Edinger Ave
Segment: Fairview St to Harbor Blvd

Project: HARBOR CORRIDOR SP
Analyst FS
Date: 27-Jun-13

ROADWAY INPUTS	
ADT	39,427
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	42
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.0%	DAY	73.0%
% MT	2.4%	EVENING	14.0%
% HT	0.6%	NIGHT	13.0%

CALCULATION AREA	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2327	58	14	1785	44	11	552	14	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	2.3	-13.7	-19.7	1.2	-14.9	-20.9	-3.9	-20.0	-26.0
Distance	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.2	58.1	56.9	64.1	57.0	55.8	59.0	51.9	50.7
VEHICULAR NOISE	DAY=	66.5	Leq	EVENING=	65.4	Leq	NIGHT=	60.3	Leq

RESULTS				
NOISE LEVELS AT 100 FEET FROM CENTERLINE (dBA):			**Ldn=**	**68.2**
			CNEL=	**68.8**
NOISE CONTOUR:		*70 dBA*	*65 dBA*	*60 dBA*
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	**Ldn:**	**76**	**164**	**354**
	CNEL:	**83**	**179**	**386**