Revised Draft

Heritage Ridge Residential Project EIR

SCH # 2015041014

Lead Agency: City of Goleta

Volume II: Appendices

Prepared with the assistance of:
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Appendix B

Air Quality/Greenhouse Gas Emissions Studies & Modeling, and Energy Calculations

Heritage Ridge Residential Project - AQ

Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	543.00	Space	4.47	217,200.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Low Rise	125.00	Dwelling Unit	5.64	125,000.00	316
Apartments Mid Rise	207.00	Dwelling Unit	3.94	207,000.00	523

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Low-rise = 2-story Buildings 1, 4, 5, and 6; Mid-rise = 3-story Buildings 2, 3, 7, 8, 9, and 10; Pop per PD (total 839); Total acreage 16.05

Construction Phase - Schedule per applicant; arch coating halfway through building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equip per previous CalEEMod run (2014)

Trips and VMT -

Grading - Export modeled separately

Architectural Coating -

Vehicle Trips - Trip rates per Associated Transportation Engineers (2021 Trip Gen); trip lengths per total project VMT (based solely on dwelling units)

Construction Off-road Equipment Mitigation - SBCAPCD dust control requirement = water 2x daily

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Energy Code requires 100% on-site solar

Water Mitigation - 20% indoor water red per Part 11 Title 24; Water-efficient irrigation per CalGreen

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	10.00	155.00
tblConstructionPhase	NumDays	30.00	103.00
tblConstructionPhase	NumDays	20.00	52.00
tblConstructionPhase	NumDays	300.00	654.00
tblConstructionPhase	NumDays	20.00	341.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LotAcreage	4.89	4.47
tblLandUse	LotAcreage	7.81	5.64
tblLandUse	LotAcreage	5.45	3.94
tblLandUse	Population	340.00	316.00
tblLandUse	Population	563.00	523.00
tblVehicleTrips	CC_TL	5.50	0.00
tblVehicleTrips	CNW_TL	6.40	0.00
tblVehicleTrips	CW_TL	6.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	4.90	6.03
tblVehicleTrips	HO_TL	4.90	6.16
tblVehicleTrips	HS_TL	4.50	6.03
tblVehicleTrips	HS_TL	4.50	6.16
tblVehicleTrips	HW_TL	8.30	6.03
tblVehicleTrips	HW_TL	8.30	6.16
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	WD_TR	6.59	6.34
tblVehicleTrips	WD_TR	6.65	6.34
tblVehicleTrips	WD_TR	1.89	50.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2069	2.1284	1.1309	2.0500e-003	0.9543	0.1074	1.0617	0.5229	0.0988	0.6217	0.0000	180.1426	180.1426	0.0569	0.0000	181.5655
2022	0.5478	5.1508	4.7528	0.0101	1.0957	0.2169	1.3126	0.4867	0.2007	0.6874	0.0000	903.6761	903.6761	0.2109	0.0000	908.9486
2023	0.9779	3.5118	4.1379	0.0105	0.4602	0.1178	0.5780	0.1241	0.1111	0.2351	0.0000	957.6839	957.6839	0.1172	0.0000	960.6139
2024	1.1518	2.3180	2.8831	7.3700e-003	0.3372	0.0735	0.4107	0.0908	0.0695	0.1603	0.0000	670.9655	670.9655	0.0797	0.0000	672.9573
Maximum	**1.1518**	**5.1508**	**4.7528**	**0.0105**	**1.0957**	**0.2169**	**1.3126**	**0.5229**	**0.2007**	**0.6874**	**0.0000**	**957.6839**	**957.6839**	**0.2109**	**0.0000**	**960.6139**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2069	2.1284	1.1309	2.0500e-003	0.4327	0.1074	0.5400	0.2362	0.0988	0.3349	0.0000	180.1424	180.1424	0.0569	0.0000	181.5653
2022	0.5478	5.1508	4.7528	0.0101	0.6016	0.2169	0.8186	0.2483	0.2007	0.4490	0.0000	903.6753	903.6753	0.2109	0.0000	908.9479
2023	0.9779	3.5118	4.1379	0.0105	0.4602	0.1178	0.5780	0.1241	0.1111	0.2351	0.0000	957.6834	957.6834	0.1172	0.0000	960.6135
2024	1.1518	2.3180	2.8831	7.3700e-003	0.3372	0.0735	0.4107	0.0908	0.0695	0.1603	0.0000	670.9652	670.9652	0.0797	0.0000	672.9569
Maximum	**1.1518**	**5.1508**	**4.7528**	**0.0105**	**0.6016**	**0.2169**	**0.8186**	**0.2483**	**0.2007**	**0.4490**	**0.0000**	**957.6834**	**957.6834**	**0.2109**	**0.0000**	**960.6135**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**35.67**	**0.00**	**30.20**	**42.89**	**0.00**	**30.81**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.7349	1.7349
2	12-1-2021	2-28-2022	2.5867	2.5867
3	3-1-2022	5-31-2022	1.4150	1.4150
4	6-1-2022	8-31-2022	0.8345	0.8345
5	9-1-2022	11-30-2022	1.0737	1.0737
6	12-1-2022	2-28-2023	0.9901	0.9901
7	3-1-2023	5-31-2023	0.9672	0.9672
8	6-1-2023	8-31-2023	1.0957	1.0957

9	**9-1-2023**	**11-30-2023**	1.3449	1.3449
10	**12-1-2023**	**2-29-2024**	1.3101	1.3101
11	**3-1-2024**	**5-31-2024**	1.2991	1.2991
12	**6-1-2024**	**8-31-2024**	1.2963	1.2963
		Highest	2.5867	2.5867

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Energy	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	663.4432	663.4432	0.0227	7.7400e-003	666.3165
Mobile	0.5729	2.1321	6.0775	0.0179	1.7723	0.0152	1.7875	0.4758	0.0142	0.4900	0.0000	1,649.1328	1,649.1328	0.0768	0.0000	1,651.0523
Waste						0.0000	0.0000		0.0000	0.0000	31.7497	0.0000	31.7497	1.5744	0.0000	71.1087
Water						0.0000	0.0000		0.0000	0.0000	7.6531	55.1585	62.8116	0.0286	0.0171	68.6271
Total	**2.1177**	**2.3431**	**8.6243**	**0.0192**	**1.7723**	**0.0436**	**1.8159**	**0.4758**	**0.0426**	**0.5184**	**39.4028**	**2,371.7709**	**2,411.1737**	**1.7064**	**0.0249**	**2,461.2383**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Energy	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997
Mobile	0.5507	1.9875	5.5406	0.0158	1.5459	0.0136	1.5595	0.4150	0.0127	0.4277	0.0000	1,453.2518	1,453.2518	0.0695	0.0000	1,454.9884
Waste						0.0000	0.0000		0.0000	0.0000	31.7497	0.0000	31.7497	1.5744	0.0000	71.1087
Water						0.0000	0.0000		0.0000	0.0000	6.1225	47.6998	53.8223	0.0230	0.0137	58.4875
Total	**2.0954**	**2.1985**	**8.0873**	**0.0170**	**1.5459**	**0.0420**	**1.5879**	**0.4150**	**0.0411**	**0.4561**	**37.8722**	**1,716.3319**	**1,754.2041**	**1.6748**	**0.0176**	**1,801.3180**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.05**	**6.17**	**6.23**	**11.06**	**12.77**	**3.78**	**12.55**	**12.77**	**3.64**	**12.02**	**3.88**	**27.64**	**27.25**	**1.85**	**29.22**	**26.81**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2021	2/28/2022	6	155	
2	Grading	Grading	1/1/2022	4/30/2022	6	103	
3	Site Utilities	Trenching	4/1/2022	6/30/2022	6	78	
4	Paving	Paving	6/1/2022	7/30/2022	6	52	
5	Building Construction	Building Construction	8/1/2022	8/31/2024	6	654	
6	Architectural Coating	Architectural Coating	8/1/2023	8/31/2024	6	341	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 257.5

Acres of Paving: 4.47

Residential Indoor: 672,300; Residential Outdoor: 224,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 13,032 (Architectural Coating – sqft)

OffRoad Equipment

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Excavators	3	8.00	158	0.38
Site Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Trenchers	1	4.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	367.00	85.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9485	0.0000	0.9485	0.5214	0.0000	0.5214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2041	2.1261	1.1106	2.0000e-003		0.1073	0.1073		0.0988	0.0988	0.0000	175.5375	175.5375	0.0568	0.0000	176.9568
Total	**0.2041**	**2.1261**	**1.1106**	**2.0000e-003**	**0.9485**	**0.1073**	**1.0558**	**0.5214**	**0.0988**	**0.6201**	**0.0000**	**175.5375**	**175.5375**	**0.0568**	**0.0000**	**176.9568**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087
Total	**2.8100e-003**	**2.2800e-003**	**0.0203**	**5.0000e-005**	**5.8400e-003**	**4.0000e-005**	**5.8700e-003**	**1.5500e-003**	**3.0000e-005**	**1.5800e-003**	**0.0000**	**4.6051**	**4.6051**	**1.4000e-004**	**0.0000**	**4.6087**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4268	0.0000	0.4268	0.2346	0.0000	0.2346	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2041	2.1261	1.1106	2.0000e-003		0.1073	0.1073		0.0988	0.0988	0.0000	175.5373	175.5373	0.0568	0.0000	176.9566
Total	**0.2041**	**2.1261**	**1.1106**	**2.0000e-003**	**0.4268**	**0.1073**	**0.5342**	**0.2346**	**0.0988**	**0.3334**	**0.0000**	**175.5373**	**175.5373**	**0.0568**	**0.0000**	**176.9566**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087
Total	**2.8100e-003**	**2.2800e-003**	**0.0203**	**5.0000e-005**	**5.8400e-003**	**4.0000e-005**	**5.8700e-003**	**1.5500e-003**	**3.0000e-005**	**1.5800e-003**	**0.0000**	**4.6051**	**4.6051**	**1.4000e-004**	**0.0000**	**4.6087**

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4517	0.0000	0.4517	0.2483	0.0000	0.2483	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0793	0.8271	0.4924	9.5000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	83.5985	83.5985	0.0270	0.0000	84.2744
Total	**0.0793**	**0.8271**	**0.4924**	**9.5000e-004**	**0.4517**	**0.0403**	**0.4920**	**0.2483**	**0.0371**	**0.2854**	**0.0000**	**83.5985**	**83.5985**	**0.0270**	**0.0000**	**84.2744**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162
Total	**1.2500e-003**	**9.7000e-004**	**8.7900e-003**	**2.0000e-005**	**2.7800e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.1147**	**2.1147**	**6.0000e-005**	**0.0000**	**2.1162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2033	0.0000	0.2033	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0793	0.8271	0.4924	9.5000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	83.5984	83.5984	0.0270	0.0000	84.2743
Total	**0.0793**	**0.8271**	**0.4924**	**9.5000e-004**	**0.2033**	**0.0403**	**0.2436**	**0.1117**	**0.0371**	**0.1488**	**0.0000**	**83.5984**	**83.5984**	**0.0270**	**0.0000**	**84.2743**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162
Total	**1.2500e-003**	**9.7000e-004**	**8.7900e-003**	**2.0000e-005**	**2.7800e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.1147**	**2.1147**	**6.0000e-005**	**0.0000**	**2.1162**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4467	0.0000	0.4467	0.1852	0.0000	0.1852	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1867	2.0004	1.4956	3.2000e-003		0.0842	0.0842		0.0775	0.0775	0.0000	280.8532	280.8532	0.0908	0.0000	283.1240
Total	**0.1867**	**2.0004**	**1.4956**	**3.2000e-003**	**0.4467**	**0.0842**	**0.5309**	**0.1852**	**0.0775**	**0.2627**	**0.0000**	**280.8532**	**280.8532**	**0.0908**	**0.0000**	**283.1240**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438
Total	**2.8600e-003**	**2.2200e-003**	**0.0201**	**5.0000e-005**	**6.3600e-003**	**4.0000e-005**	**6.4000e-003**	**1.6900e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**4.8403**	**4.8403**	**1.4000e-004**	**0.0000**	**4.8438**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2010	0.0000	0.2010	0.0834	0.0000	0.0834	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1867	2.0004	1.4956	3.2000e-003		0.0842	0.0842		0.0775	0.0775	0.0000	280.8529	280.8529	0.0908	0.0000	283.1237
Total	**0.1867**	**2.0004**	**1.4956**	**3.2000e-003**	**0.2010**	**0.0842**	**0.2852**	**0.0834**	**0.0775**	**0.1608**	**0.0000**	**280.8529**	**280.8529**	**0.0908**	**0.0000**	**283.1237**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438
Total	**2.8600e-003**	**2.2200e-003**	**0.0201**	**5.0000e-005**	**6.3600e-003**	**4.0000e-005**	**6.4000e-003**	**1.6900e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**4.8403**	**4.8403**	**1.4000e-004**	**0.0000**	**4.8438**

3.4 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1715	80.1715	0.0259	0.0000	80.8197
Total	**0.0436**	**0.4045**	**0.6061**	**9.1000e-004**		**0.0218**	**0.0218**		**0.0200**	**0.0200**	**0.0000**	**80.1715**	**80.1715**	**0.0259**	**0.0000**	**80.8197**

3.4 Site Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511
Total	**1.6200e-003**	**1.2600e-003**	**0.0114**	**3.0000e-005**	**3.6100e-003**	**2.0000e-005**	**3.6400e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.7491**	**2.7491**	**8.0000e-005**	**0.0000**	**2.7511**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1714	80.1714	0.0259	0.0000	80.8196
Total	**0.0436**	**0.4045**	**0.6061**	**9.1000e-004**		**0.0218**	**0.0218**		**0.0200**	**0.0200**	**0.0000**	**80.1714**	**80.1714**	**0.0259**	**0.0000**	**80.8196**

3.4 Site Utilities - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511
Total	**1.6200e-003**	**1.2600e-003**	**0.0114**	**3.0000e-005**	**3.6100e-003**	**2.0000e-005**	**3.6400e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.7491**	**2.7491**	**8.0000e-005**	**0.0000**	**2.7511**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0287	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0717	52.0717	0.0168	0.0000	52.4927
Paving	5.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0345**	**0.2893**	**0.3791**	**5.9000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**52.0717**	**52.0717**	**0.0168**	**0.0000**	**52.4927**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340
Total	**1.0800e-003**	**8.4000e-004**	**7.6200e-003**	**2.0000e-005**	**2.4100e-003**	**1.0000e-005**	**2.4200e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8327**	**1.8327**	**5.0000e-005**	**0.0000**	**1.8340**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0287	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0716	52.0716	0.0168	0.0000	52.4926
Paving	5.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0345**	**0.2893**	**0.3791**	**5.9000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**52.0716**	**52.0716**	**0.0168**	**0.0000**	**52.4926**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340
Total	**1.0800e-003**	**8.4000e-004**	**7.6200e-003**	**2.0000e-005**	**2.4100e-003**	**1.0000e-005**	**2.4200e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8327**	**1.8327**	**5.0000e-005**	**0.0000**	**1.8340**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9387	152.9387	0.0366	0.0000	153.8547
Total	**0.1126**	**1.0306**	**1.0800**	**1.7800e-003**		**0.0534**	**0.0534**		**0.0502**	**0.0502**	**0.0000**	**152.9387**	**152.9387**	**0.0366**	**0.0000**	**153.8547**

3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.5413	0.1785	1.3000e-003	0.0326	1.4900e-003	0.0341	9.4100e-003	1.4200e-003	0.0108	0.0000	128.6799	128.6799	0.0100	0.0000	128.9300
Worker	0.0672	0.0523	0.4731	1.2600e-003	0.1496	9.2000e-004	0.1505	0.0398	8.4000e-004	0.0406	0.0000	113.8260	113.8260	3.2800e-003	0.0000	113.9081
Total	**0.0843**	**0.5936**	**0.6516**	**2.5600e-003**	**0.1822**	**2.4100e-003**	**0.1846**	**0.0492**	**2.2600e-003**	**0.0514**	**0.0000**	**242.5059**	**242.5059**	**0.0133**	**0.0000**	**242.8381**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9385	152.9385	0.0366	0.0000	153.8545
Total	**0.1126**	**1.0306**	**1.0800**	**1.7800e-003**		**0.0534**	**0.0534**		**0.0502**	**0.0502**	**0.0000**	**152.9385**	**152.9385**	**0.0366**	**0.0000**	**153.8545**

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.5413	0.1785	1.3000e-003	0.0326	1.4900e-003	0.0341	9.4100e-003	1.4200e-003	0.0108	0.0000	128.6799	128.6799	0.0100	0.0000	128.9300
Worker	0.0672	0.0523	0.4731	1.2600e-003	0.1496	9.2000e-004	0.1505	0.0398	8.4000e-004	0.0406	0.0000	113.8260	113.8260	3.2800e-003	0.0000	113.9081
Total	**0.0843**	**0.5936**	**0.6516**	**2.5600e-003**	**0.1822**	**2.4100e-003**	**0.1846**	**0.0492**	**2.2600e-003**	**0.0514**	**0.0000**	**242.5059**	**242.5059**	**0.0133**	**0.0000**	**242.8381**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6154	361.6154	0.0860	0.0000	363.7660
Total	**0.2454**	**2.2440**	**2.5341**	**4.2000e-003**		**0.1092**	**0.1092**		**0.1027**	**0.1027**	**0.0000**	**361.6154**	**361.6154**	**0.0860**	**0.0000**	**363.7660**

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	1.0625	0.3800	3.0000e-003	0.0771	1.6900e-003	0.0788	0.0222	1.6100e-003	0.0239	0.0000	298.7252	298.7252	0.0227	0.0000	299.2924
Worker	0.1483	0.1107	1.0200	2.8700e-003	0.3536	2.1100e-003	0.3557	0.0940	1.9400e-003	0.0959	0.0000	258.9895	258.9895	6.9100e-003	0.0000	259.1623
Total	**0.1798**	**1.1732**	**1.4000**	**5.8700e-003**	**0.4307**	**3.8000e-003**	**0.4345**	**0.1162**	**3.5500e-003**	**0.1198**	**0.0000**	**557.7147**	**557.7147**	**0.0296**	**0.0000**	**558.4547**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6150	361.6150	0.0860	0.0000	363.7655
Total	**0.2454**	**2.2440**	**2.5341**	**4.2000e-003**		**0.1092**	**0.1092**		**0.1027**	**0.1027**	**0.0000**	**361.6150**	**361.6150**	**0.0860**	**0.0000**	**363.7655**

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	1.0625	0.3800	3.0000e-003	0.0771	1.6900e-003	0.0788	0.0222	1.6100e-003	0.0239	0.0000	298.7252	298.7252	0.0227	0.0000	299.2924
Worker	0.1483	0.1107	1.0200	2.8700e-003	0.3536	2.1100e-003	0.3557	0.0940	1.9400e-003	0.0959	0.0000	258.9895	258.9895	6.9100e-003	0.0000	259.1623
Total	**0.1798**	**1.1732**	**1.4000**	**5.8700e-003**	**0.4307**	**3.8000e-003**	**0.4345**	**0.1162**	**3.5500e-003**	**0.1198**	**0.0000**	**557.7147**	**557.7147**	**0.0296**	**0.0000**	**558.4547**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4416	243.4416	0.0576	0.0000	244.8807
Total	**0.1545**	**1.4116**	**1.6975**	**2.8300e-003**		**0.0644**	**0.0644**		**0.0606**	**0.0606**	**0.0000**	**243.4416**	**243.4416**	**0.0576**	**0.0000**	**244.8807**

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.6982	0.2406	2.0100e-003	0.0519	1.0500e-003	0.0529	0.0150	1.0000e-003	0.0160	0.0000	199.8170	199.8170	0.0156	0.0000	200.2074
Worker	0.0935	0.0669	0.6297	1.8500e-003	0.2380	1.3800e-003	0.2394	0.0633	1.2700e-003	0.0645	0.0000	167.5670	167.5670	4.1500e-003	0.0000	167.6708
Total	**0.1136**	**0.7651**	**0.8703**	**3.8600e-003**	**0.2899**	**2.4300e-003**	**0.2923**	**0.0782**	**2.2700e-003**	**0.0805**	**0.0000**	**367.3841**	**367.3841**	**0.0198**	**0.0000**	**367.8782**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4413	243.4413	0.0576	0.0000	244.8804
Total	**0.1545**	**1.4116**	**1.6975**	**2.8300e-003**		**0.0644**	**0.0644**		**0.0606**	**0.0606**	**0.0000**	**243.4413**	**243.4413**	**0.0576**	**0.0000**	**244.8804**

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.6982	0.2406	2.0100e-003	0.0519	1.0500e-003	0.0529	0.0150	1.0000e-003	0.0160	0.0000	199.8170	199.8170	0.0156	0.0000	200.2074
Worker	0.0935	0.0669	0.6297	1.8500e-003	0.2380	1.3800e-003	0.2394	0.0633	1.2700e-003	0.0645	0.0000	167.5670	167.5670	4.1500e-003	0.0000	167.6708
Total	**0.1136**	**0.7651**	**0.8703**	**3.8600e-003**	**0.2899**	**2.4300e-003**	**0.2923**	**0.0782**	**2.2700e-003**	**0.0805**	**0.0000**	**367.3841**	**367.3841**	**0.0198**	**0.0000**	**367.8782**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488
Total	**0.5404**	**0.0854**	**0.1186**	**1.9000e-004**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**	**0.0000**	**16.7238**	**16.7238**	**1.0000e-003**	**0.0000**	**16.7488**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444
Total	**0.0124**	**9.2400e-003**	**0.0852**	**2.4000e-004**	**0.0295**	**1.8000e-004**	**0.0297**	**7.8500e-003**	**1.6000e-004**	**8.0100e-003**	**0.0000**	**21.6300**	**21.6300**	**5.8000e-004**	**0.0000**	**21.6444**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488
Total	**0.5404**	**0.0854**	**0.1186**	**1.9000e-004**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**	**0.0000**	**16.7238**	**16.7238**	**1.0000e-003**	**0.0000**	**16.7488**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444
Total	**0.0124**	**9.2400e-003**	**0.0852**	**2.4000e-004**	**0.0295**	**1.8000e-004**	**0.0297**	**7.8500e-003**	**1.6000e-004**	**8.0100e-003**	**0.0000**	**21.6300**	**21.6300**	**5.8000e-004**	**0.0000**	**21.6444**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8092	26.8092	1.5100e-003	0.0000	26.8469
Total	**0.8651**	**0.1280**	**0.1901**	**3.1000e-004**		**6.4000e-003**	**6.4000e-003**		**6.4000e-003**	**6.4000e-003**	**0.0000**	**26.8092**	**26.8092**	**1.5100e-003**	**0.0000**	**26.8469**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514
Total	**0.0186**	**0.0133**	**0.1252**	**3.7000e-004**	**0.0473**	**2.7000e-004**	**0.0476**	**0.0126**	**2.5000e-004**	**0.0128**	**0.0000**	**33.3308**	**33.3308**	**8.3000e-004**	**0.0000**	**33.3514**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8091	26.8091	1.5100e-003	0.0000	26.8469
Total	**0.8651**	**0.1280**	**0.1901**	**3.1000e-004**		**6.4000e-003**	**6.4000e-003**		**6.4000e-003**	**6.4000e-003**	**0.0000**	**26.8091**	**26.8091**	**1.5100e-003**	**0.0000**	**26.8469**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514
Total	**0.0186**	**0.0133**	**0.1252**	**3.7000e-004**	**0.0473**	**2.7000e-004**	**0.0476**	**0.0126**	**2.5000e-004**	**0.0128**	**0.0000**	**33.3308**	**33.3308**	**8.3000e-004**	**0.0000**	**33.3514**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

Provide Traffic Calming Measures

Limit Parking Supply

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5507	1.9875	5.5406	0.0158	1.5459	0.0136	1.5595	0.4150	0.0127	0.4277	0.0000	1,453.2518	1,453.2518	0.0695	0.0000	1,454.9884
Unmitigated	0.5729	2.1321	6.0775	0.0179	1.7723	0.0152	1.7875	0.4758	0.0142	0.4900	0.0000	1,649.1328	1,649.1328	0.0768	0.0000	1,651.0523

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	792.50	895.00	758.75	1,761,031	1,536,144
Apartments Mid Rise	1,312.38	1,322.73	1213.02	2,914,159	2,542,015
City Park	100.00	45.50	33.48	181	158
Parking Lot	0.00	0.00	0.00		
Total	2,204.88	2,263.23	2,005.25	4,675,371	4,078,317

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	6.03	6.03	6.03	25.60	9.90	64.50	100	0	0
Apartments Mid Rise	6.16	6.16	6.16	25.60	9.90	64.50	100	0	0
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Apartments Mid Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
City Park	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	452.0994	452.0994	0.0187	3.8600e-003	453.7168
NaturalGas Mitigated	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997
NaturalGas Unmitigated	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.59495e+006	8.6000e-003	0.0735	0.0313	4.7000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	85.1125	85.1125	1.6300e-003	1.5600e-003	85.6183
Apartments Mid Rise	2.36548e+006	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2313	126.2313	2.4200e-003	2.3100e-003	126.9814
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0214**	**0.1825**	**0.0777**	**1.1700e-003**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**211.3438**	**211.3438**	**4.0500e-003**	**3.8700e-003**	**212.5997**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.59495e+006	8.6000e-003	0.0735	0.0313	4.7000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	85.1125	85.1125	1.6300e-003	1.5600e-003	85.6183
Apartments Mid Rise	2.36548e+006	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2313	126.2313	2.4200e-003	2.3100e-003	126.9814
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0214**	**0.1825**	**0.0777**	**1.1700e-003**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**211.3438**	**211.3438**	**4.0500e-003**	**3.8700e-003**	**212.5997**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	520016	165.6883	6.8400e-003	1.4200e-003	166.2811
Apartments Mid Rise	822887	262.1895	0.0108	2.2400e-003	263.1275
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	76020	24.2216	1.0000e-003	2.1000e-004	24.3083
Total		**452.0994**	**0.0187**	**3.8700e-003**	**453.7168**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Unmitigated	1.5234	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3115					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0746	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Total	**1.5234**	**0.0284**	**2.4691**	**1.3000e-004**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**4.0365**	**4.0365**	**3.8900e-003**	**0.0000**	**4.1337**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3115					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0746	0.0284	2.4691	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8900e-003	0.0000	4.1337
Total	**1.5234**	**0.0284**	**2.4691**	**1.3000e-004**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**4.0365**	**4.0365**	**3.8900e-003**	**0.0000**	**4.1337**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	53.8223	0.0230	0.0137	58.4875
Unmitigated	62.8116	0.0286	0.0171	68.6271

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	8.14425 / 5.13442	22.6484	0.0107	6.4400e-003	24.8344
Apartments Mid Rise	13.4869 / 8.5026	37.5058	0.0178	0.0107	41.1258
City Park	0 / 2.38296	2.6574	1.1000e-004	2.0000e-005	2.6669
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**62.8116**	**0.0286**	**0.0171**	**68.6271**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	6.5154 / 5.13442	19.2639	8.6300e-003	5.1600e-003	21.0168
Apartments Mid Rise	10.7895 / 8.5026	31.9010	0.0143	8.5400e-003	34.8038
City Park	0 / 2.38296	2.6574	1.1000e-004	2.0000e-005	2.6669
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**53.8223**	**0.0230**	**0.0137**	**58.4875**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	31.7497	1.5744	0.0000	71.1087
Unmitigated	31.7497	1.5744	0.0000	71.1087

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	57.5	11.9406	0.5921	0.0000	26.7431
Apartments Mid Rise	95.22	19.7737	0.9805	0.0000	44.2866
City Park	0.17	0.0353	1.7500e-003	0.0000	0.0791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**31.7497**	**1.5744**	**0.0000**	**71.1087**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	57.5	11.9406	0.5921	0.0000	26.7431
Apartments Mid Rise	95.22	19.7737	0.9805	0.0000	44.2866
City Park	0.17	0.0353	1.7500e-003	0.0000	0.0791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**31.7497**	**1.5744**	**0.0000**	**71.1087**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Heritage Ridge Residential Project - AQ

Santa Barbara County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	543.00	Space	4.47	217,200.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Low Rise	125.00	Dwelling Unit	5.64	125,000.00	316
Apartments Mid Rise	207.00	Dwelling Unit	3.94	207,000.00	523

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Low-rise = 2-story Buildings 1, 4, 5, and 6; Mid-rise = 3-story Buildings 2, 3, 7, 8, 9, and 10; Pop per PD (total 839); Total acreage 16.05

Construction Phase - Schedule per applicant; arch coating halfway through building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equip per previous CalEEMod run (2014)

Trips and VMT -

Grading - Export modeled separately

Architectural Coating -

Vehicle Trips - Trip rates per Associated Transportation Engineers (2021 Trip Gen); trip lengths per total project VMT (based solely on dwelling units)

Construction Off-road Equipment Mitigation - SBCAPCD dust control requirement = water 2x daily

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Energy Code requires 100% on-site solar

Water Mitigation - 20% indoor water red per Part 11 Title 24; Water-efficient irrigation per CalGreen

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	10.00	155.00
tblConstructionPhase	NumDays	30.00	103.00
tblConstructionPhase	NumDays	20.00	52.00
tblConstructionPhase	NumDays	300.00	654.00
tblConstructionPhase	NumDays	20.00	341.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LotAcreage	4.89	4.47
tblLandUse	LotAcreage	7.81	5.64
tblLandUse	LotAcreage	5.45	3.94
tblLandUse	Population	340.00	316.00
tblLandUse	Population	563.00	523.00
tblVehicleTrips	CC_TL	5.50	0.00
tblVehicleTrips	CNW_TL	6.40	0.00
tblVehicleTrips	CW_TL	6.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	4.90	6.03
tblVehicleTrips	HO_TL	4.90	6.16
tblVehicleTrips	HS_TL	4.50	6.03
tblVehicleTrips	HS_TL	4.50	6.16
tblVehicleTrips	HW_TL	8.30	6.03
tblVehicleTrips	HW_TL	8.30	6.16
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	WD_TR	6.59	6.34
tblVehicleTrips	WD_TR	6.65	6.34
tblVehicleTrips	WD_TR	1.89	50.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9470	40.5415	21.5504	0.0390	18.1799	2.0452	20.2251	9.9608	1.8816	11.8424	0.0000	3,782.2135	3,782.2135	1.1951	0.0000	3,812.0900
2022	6.9109	72.0108	49.4993	0.1021	26.9796	3.2489	30.2285	13.5909	2.9890	16.5799	0.0000	9,894.0444	9,894.0444	3.1421	0.0000	9,972.5961
2023	11.2867	23.2755	28.6139	0.0709	3.2821	0.7979	4.0800	0.8820	0.7548	1.6368	0.0000	7,108.5898	7,108.5898	0.8475	0.0000	7,129.7775
2024	11.0866	22.0040	27.7163	0.0699	3.2821	0.7003	3.9824	0.8820	0.6622	1.5442	0.0000	7,011.2776	7,011.2776	0.8403	0.0000	7,032.2861
Maximum	**11.2867**	**72.0108**	**49.4993**	**0.1021**	**26.9796**	**3.2489**	**30.2285**	**13.5909**	**2.9890**	**16.5799**	**0.0000**	**9,894.0444**	**9,894.0444**	**3.1421**	**0.0000**	**9,972.5961**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9470	40.5415	21.5504	0.0390	8.2435	2.0452	10.2887	4.4990	1.8816	6.3805	0.0000	3,782.2135	3,782.2135	1.1951	0.0000	3,812.0900
2022	6.9109	72.0108	49.4993	0.1021	12.2728	3.2489	15.5217	6.1509	2.9890	9.1399	0.0000	9,894.0444	9,894.0444	3.1421	0.0000	9,972.5961
2023	11.2867	23.2755	28.6139	0.0709	3.2821	0.7979	4.0800	0.8820	0.7548	1.6368	0.0000	7,108.5898	7,108.5898	0.8475	0.0000	7,129.7775
2024	11.0866	22.0040	27.7163	0.0699	3.2821	0.7003	3.9824	0.8820	0.6622	1.5442	0.0000	7,011.2776	7,011.2776	0.8403	0.0000	7,032.2861
Maximum	**11.2867**	**72.0108**	**49.4993**	**0.1021**	**12.2728**	**3.2489**	**15.5217**	**6.1509**	**2.9890**	**9.1399**	**0.0000**	**9,894.0444**	**9,894.0444**	**3.1421**	**0.0000**	**9,972.5961**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**47.64**	**0.00**	**42.11**	**50.96**	**0.00**	**40.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Energy	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Mobile	3.3725	12.3617	36.4391	0.1033	10.4961	0.0886	10.5847	2.8125	0.0828	2.8953		10,506.6456	10,506.6456	0.4995		10,519.1324
Total	**12.2569**	**13.6776**	**64.2990**	**0.1112**	**10.4961**	**0.3214**	**10.8175**	**2.8125**	**0.3156**	**3.1281**	**0.0000**	**11,832.6138**	**11,832.6138**	**0.5716**	**0.0234**	**11,853.8772**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Energy	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Mobile	3.2431	11.5251	33.3030	0.0910	9.1557	0.0790	9.2347	2.4533	0.0738	2.5271		9,255.3391	9,255.3391	0.4527		9,266.6560
Total	**12.1275**	**12.8410**	**61.1630**	**0.0989**	**9.1557**	**0.3118**	**9.4675**	**2.4533**	**0.3066**	**2.7599**	**0.0000**	**10,581.3073**	**10,581.3073**	**0.5248**	**0.0234**	**10,601.4008**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	1.06	6.12	4.88	11.08	12.77	2.98	12.48	12.77	2.84	11.77	0.00	10.58	10.58	8.19	0.00	10.57

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2021	2/28/2022	6	155	
2	Grading	Grading	1/1/2022	4/30/2022	6	103	
3	Site Utilities	Trenching	4/1/2022	6/30/2022	6	78	
4	Paving	Paving	6/1/2022	7/30/2022	6	52	
5	Building Construction	Building Construction	8/1/2022	8/31/2024	6	654	
6	Architectural Coating	Architectural Coating	8/1/2023	8/31/2024	6	341	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 257.5

Acres of Paving: 4.47

Residential Indoor: 672,300; Residential Outdoor: 224,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 13,032 (Architectural Coating – sqft)

OffRoad Equipment

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Excavators	3	8.00	158	0.38
Site Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Trenchers	1	4.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	367.00	85.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0589	0.0444	0.3961	9.7000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		96.5566	96.5566	3.0400e-003		96.6327
Total	**0.0589**	**0.0444**	**0.3961**	**9.7000e-004**	**0.1137**	**7.0000e-004**	**0.1144**	**0.0302**	**6.5000e-004**	**0.0308**		**96.5566**	**96.5566**	**3.0400e-003**		**96.6327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**8.1298**	**2.0445**	**10.1743**	**4.4688**	**1.8809**	**6.3497**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0589	0.0444	0.3961	9.7000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		96.5566	96.5566	3.0400e-003		96.6327
Total	**0.0589**	**0.0444**	**0.3961**	**9.7000e-004**	**0.1137**	**7.0000e-004**	**0.1144**	**0.0302**	**6.5000e-004**	**0.0308**		**96.5566**	**96.5566**	**3.0400e-003**		**96.6327**

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		93.1131	93.1131	2.7100e-003		93.1807
Total	**0.0549**	**0.0397**	**0.3600**	**9.4000e-004**	**0.1137**	**6.8000e-004**	**0.1144**	**0.0302**	**6.3000e-004**	**0.0308**		**93.1131**	**93.1131**	**2.7100e-003**		**93.1807**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.1298**	**1.6126**	**9.7424**	**4.4688**	**1.4836**	**5.9524**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		93.1131	93.1131	2.7100e-003		93.1807
Total	**0.0549**	**0.0397**	**0.3600**	**9.4000e-004**	**0.1137**	**6.8000e-004**	**0.1144**	**0.0302**	**6.3000e-004**	**0.0308**		**93.1131**	**93.1131**	**2.7100e-003**		**93.1807**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0610	0.0441	0.4000	1.0400e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		103.4589	103.4589	3.0100e-003		103.5341
Total	**0.0610**	**0.0441**	**0.4000**	**1.0400e-003**	**0.1263**	**7.6000e-004**	**0.1271**	**0.0335**	**7.0000e-004**	**0.0342**		**103.4589**	**103.4589**	**3.0100e-003**		**103.5341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**3.9030**	**1.6349**	**5.5379**	**1.6184**	**1.5041**	**3.1225**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0610	0.0441	0.4000	1.0400e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		103.4589	103.4589	3.0100e-003		103.5341
Total	**0.0610**	**0.0441**	**0.4000**	**1.0400e-003**	**0.1263**	**7.6000e-004**	**0.1271**	**0.0335**	**7.0000e-004**	**0.0342**		**103.4589**	**103.4589**	**3.0100e-003**		**103.5341**

3.4 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131		2,265.9984	2,265.9984	0.7329		2,284.3202
Total	**1.1186**	**10.3720**	**15.5408**	**0.0234**		**0.5577**	**0.5577**		**0.5131**	**0.5131**		**2,265.9984**	**2,265.9984**	**0.7329**		**2,284.3202**

3.4 Site Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506
Total	**0.0458**	**0.0331**	**0.3000**	**7.8000e-004**	**0.0947**	**5.7000e-004**	**0.0953**	**0.0251**	**5.2000e-004**	**0.0257**		**77.5942**	**77.5942**	**2.2500e-003**		**77.6506**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131	0.0000	2,265.9984	2,265.9984	0.7329		2,284.3202
Total	**1.1186**	**10.3720**	**15.5408**	**0.0234**		**0.5577**	**0.5577**		**0.5131**	**0.5131**	**0.0000**	**2,265.9984**	**2,265.9984**	**0.7329**		**2,284.3202**

3.4 Site Utilities - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506
Total	**0.0458**	**0.0331**	**0.3000**	**7.8000e-004**	**0.0947**	**5.7000e-004**	**0.0953**	**0.0251**	**5.2000e-004**	**0.0257**		**77.5942**	**77.5942**	**2.2500e-003**		**77.6506**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3280**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506
Total	**0.0458**	**0.0331**	**0.3000**	**7.8000e-004**	**0.0947**	**5.7000e-004**	**0.0953**	**0.0251**	**5.2000e-004**	**0.0257**		**77.5942**	**77.5942**	**2.2500e-003**		**77.6506**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3280**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		77.5942	77.5942	2.2500e-003		77.6506
Total	**0.0458**	**0.0331**	**0.3000**	**7.8000e-004**	**0.0947**	**5.7000e-004**	**0.0953**	**0.0251**	**5.2000e-004**	**0.0257**		**77.5942**	**77.5942**	**2.2500e-003**		**77.6506**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2684	8.0796	2.8335	0.0194	0.5033	0.0232	0.5266	0.1448	0.0222	0.1670		2,119.0713	2,119.0713	0.1713		2,123.3535
Worker	1.1194	0.8096	7.3405	0.0191	2.3178	0.0139	2.3317	0.6149	0.0128	0.6277		1,898.4716	1,898.4716	0.0552		1,899.8505
Total	**1.3878**	**8.8892**	**10.1740**	**0.0385**	**2.8211**	**0.0371**	**2.8582**	**0.7597**	**0.0350**	**0.7947**		**4,017.5429**	**4,017.5429**	**0.2265**		**4,023.2041**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2684	8.0796	2.8335	0.0194	0.5033	0.0232	0.5266	0.1448	0.0222	0.1670		2,119.0713	2,119.0713	0.1713		2,123.3535
Worker	1.1194	0.8096	7.3405	0.0191	2.3178	0.0139	2.3317	0.6149	0.0128	0.6277		1,898.4716	1,898.4716	0.0552		1,899.8505
Total	**1.3878**	**8.8892**	**10.1740**	**0.0385**	**2.8211**	**0.0371**	**2.8582**	**0.7597**	**0.0350**	**0.7947**		**4,017.5429**	**4,017.5429**	**0.2265**		**4,023.2041**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2089	6.7183	2.5381	0.0190	0.5033	0.0111	0.5144	0.1448	0.0106	0.1554		2,080.8878	2,080.8878	0.1640		2,084.9873
Worker	1.0471	0.7251	6.6900	0.0184	2.3178	0.0135	2.3313	0.6149	0.0125	0.6274		1,827.5299	1,827.5299	0.0491		1,828.7569
Total	**1.2561**	**7.4434**	**9.2281**	**0.0374**	**2.8211**	**0.0246**	**2.8457**	**0.7597**	**0.0231**	**0.7828**		**3,908.4177**	**3,908.4177**	**0.2131**		**3,913.7442**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2089	6.7183	2.5381	0.0190	0.5033	0.0111	0.5144	0.1448	0.0106	0.1554		2,080.8878	2,080.8878	0.1640		2,084.9873
Worker	1.0471	0.7251	6.6900	0.0184	2.3178	0.0135	2.3313	0.6149	0.0125	0.6274		1,827.5299	1,827.5299	0.0491		1,828.7569
Total	**1.2561**	**7.4434**	**9.2281**	**0.0374**	**2.8211**	**0.0246**	**2.8457**	**0.7597**	**0.0231**	**0.7828**		**3,908.4177**	**3,908.4177**	**0.2131**		**3,913.7442**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1975	6.5608	2.3883	0.0188	0.5033	0.0103	0.5136	0.1448	9.8000e-003	0.1546		2,067.9621	2,067.9621	0.1677		2,072.1541
Worker	0.9832	0.6511	6.1314	0.0176	2.3178	0.0132	2.3310	0.6149	0.0121	0.6270		1,756.7361	1,756.7361	0.0438		1,757.8299
Total	**1.1807**	**7.2119**	**8.5197**	**0.0365**	**2.8211**	**0.0234**	**2.8445**	**0.7597**	**0.0219**	**0.7816**		**3,824.6982**	**3,824.6982**	**0.2114**		**3,829.9841**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1975	6.5608	2.3883	0.0188	0.5033	0.0103	0.5136	0.1448	9.8000e-003	0.1546		2,067.9621	2,067.9621	0.1677		2,072.1541
Worker	0.9832	0.6511	6.1314	0.0176	2.3178	0.0132	2.3310	0.6149	0.0121	0.6270		1,756.7361	1,756.7361	0.0438		1,757.8299
Total	**1.1807**	**7.2119**	**8.5197**	**0.0365**	**2.8211**	**0.0234**	**2.8445**	**0.7597**	**0.0219**	**0.7816**		**3,824.6982**	**3,824.6982**	**0.2114**		**3,829.9841**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**8.2496**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2083	0.1442	1.3307	3.6500e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		363.5141	363.5141	9.7600e-003		363.7582
Total	**0.2083**	**0.1442**	**1.3307**	**3.6500e-003**	**0.4610**	**2.6900e-003**	**0.4637**	**0.1223**	**2.4800e-003**	**0.1248**		**363.5141**	**363.5141**	**9.7600e-003**		**363.7582**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**8.2496**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2083	0.1442	1.3307	3.6500e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		363.5141	363.5141	9.7600e-003		363.7582
Total	**0.2083**	**0.1442**	**1.3307**	**3.6500e-003**	**0.4610**	**2.6900e-003**	**0.4637**	**0.1223**	**2.4800e-003**	**0.1248**		**363.5141**	**363.5141**	**9.7600e-003**		**363.7582**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**8.2387**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1956	0.1295	1.2196	3.5100e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		349.4325	349.4325	8.7000e-003		349.6501
Total	**0.1956**	**0.1295**	**1.2196**	**3.5100e-003**	**0.4610**	**2.6200e-003**	**0.4637**	**0.1223**	**2.4100e-003**	**0.1247**		**349.4325**	**349.4325**	**8.7000e-003**		**349.6501**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**8.2387**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1956	0.1295	1.2196	3.5100e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		349.4325	349.4325	8.7000e-003		349.6501
Total	**0.1956**	**0.1295**	**1.2196**	**3.5100e-003**	**0.4610**	**2.6200e-003**	**0.4637**	**0.1223**	**2.4100e-003**	**0.1247**		**349.4325**	**349.4325**	**8.7000e-003**		**349.6501**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

Provide Traffic Calming Measures

Limit Parking Supply

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2431	11.5251	33.3030	0.0910	9.1557	0.0790	9.2347	2.4533	0.0738	2.5271		9,255.3391	9,255.3391	0.4527		9,266.6560
Unmitigated	3.3725	12.3617	36.4391	0.1033	10.4961	0.0886	10.5847	2.8125	0.0828	2.8953		10,506.6456	10,506.6456	0.4995		10,519.1324

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	792.50	895.00	758.75	1,761,031	1,536,144
Apartments Mid Rise	1,312.38	1,322.73	1213.02	2,914,159	2,542,015
City Park	100.00	45.50	33.48	181	158
Parking Lot	0.00	0.00	0.00		
Total	2,204.88	2,263.23	2,005.25	4,675,371	4,078,317

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	6.03	6.03	6.03	25.60	9.90	64.50	100	0	0
Apartments Mid Rise	6.16	6.16	6.16	25.60	9.90	64.50	100	0	0
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Apartments Mid Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
City Park	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
NaturalGas Unmitigated	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	4369.72	0.0471	0.4027	0.1714	2.5700e-003		0.0326	0.0326		0.0326	0.0326		514.0850	514.0850	9.8500e-003	9.4200e-003	517.1400
Apartments Mid Rise	6480.78	0.0699	0.5973	0.2542	3.8100e-003		0.0483	0.0483		0.0483	0.0483		762.4446	762.4446	0.0146	0.0140	766.9754
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1170**	**1.0000**	**0.4255**	**6.3800e-003**		**0.0809**	**0.0809**		**0.0809**	**0.0809**		**1,276.5296**	**1,276.5296**	**0.0245**	**0.0234**	**1,284.1153**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	4.36972	0.0471	0.4027	0.1714	2.5700e-003		0.0326	0.0326		0.0326	0.0326		514.0850	514.0850	9.8500e-003	9.4200e-003	517.1400
Apartments Mid Rise	6.48078	0.0699	0.5973	0.2542	3.8100e-003		0.0483	0.0483		0.0483	0.0483		762.4446	762.4446	0.0146	0.0140	766.9754
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1170**	**1.0000**	**0.4255**	**6.3800e-003**		**0.0809**	**0.0809**		**0.0809**	**0.0809**		**1,276.5296**	**1,276.5296**	**0.0245**	**0.0234**	**1,284.1153**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Unmitigated	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8284	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520		49.4386	49.4386	0.0476		50.6295
Total	**8.7674**	**0.3160**	**27.4345**	**1.4500e-003**		**0.1520**	**0.1520**		**0.1520**	**0.1520**	**0.0000**	**49.4386**	**49.4386**	**0.0476**	**0.0000**	**50.6295**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8284	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520		49.4386	49.4386	0.0476		50.6295
Total	**8.7674**	**0.3160**	**27.4345**	**1.4500e-003**		**0.1520**	**0.1520**		**0.1520**	**0.1520**	**0.0000**	**49.4386**	**49.4386**	**0.0476**	**0.0000**	**50.6295**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Heritage Ridge Residential Project - AQ

Santa Barbara County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	543.00	Space	4.47	217,200.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Low Rise	125.00	Dwelling Unit	5.64	125,000.00	316
Apartments Mid Rise	207.00	Dwelling Unit	3.94	207,000.00	523

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Low-rise = 2-story Buildings 1, 4, 5, and 6; Mid-rise = 3-story Buildings 2, 3, 7, 8, 9, and 10; Pop per PD (total 839); Total acreage 16.05

Construction Phase - Schedule per applicant; arch coating halfway through building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equip per previous CalEEMod run (2014)

Trips and VMT -

Grading - Export modeled separately

Architectural Coating -

Vehicle Trips - Trip rates per Associated Transportation Engineers (2021 Trip Gen); trip lengths per total project VMT (based solely on dwelling units)

Construction Off-road Equipment Mitigation - SBCAPCD dust control requirement = water 2x daily

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Energy Code requires 100% on-site solar

Water Mitigation - 20% indoor water red per Part 11 Title 24; Water-efficient irrigation per CalGreen

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	10.00	155.00
tblConstructionPhase	NumDays	30.00	103.00
tblConstructionPhase	NumDays	20.00	52.00
tblConstructionPhase	NumDays	300.00	654.00
tblConstructionPhase	NumDays	20.00	341.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LotAcreage	4.89	4.47
tblLandUse	LotAcreage	7.81	5.64
tblLandUse	LotAcreage	5.45	3.94
tblLandUse	Population	340.00	316.00
tblLandUse	Population	563.00	523.00
tblVehicleTrips	CC_TL	5.50	0.00
tblVehicleTrips	CNW_TL	6.40	0.00
tblVehicleTrips	CW_TL	6.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	4.90	6.03
tblVehicleTrips	HO_TL	4.90	6.16
tblVehicleTrips	HS_TL	4.50	6.03
tblVehicleTrips	HS_TL	4.50	6.16
tblVehicleTrips	HW_TL	8.30	6.03
tblVehicleTrips	HW_TL	8.30	6.16
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	WD_TR	6.59	6.34
tblVehicleTrips	WD_TR	6.65	6.34
tblVehicleTrips	WD_TR	1.89	50.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9403	40.5360	21.5365	0.0390	18.1799	2.0452	20.2251	9.9608	1.8816	11.8424	0.0000	3,784.4992	3,784.4992	1.1951	0.0000	3,814.3756
2022	6.8975	72.0003	49.4745	0.1021	26.9796	3.2489	30.2285	13.5909	2.9890	16.5799	0.0000	9,898.6957	9,898.6957	3.1421	0.0000	9,977.2475
2023	11.1271	23.2022	28.1583	0.0719	3.2821	0.7974	4.0795	0.8820	0.7543	1.6363	0.0000	7,212.0674	7,212.0674	0.8410	0.0000	7,233.0919
2024	10.9338	21.9428	27.3092	0.0709	3.2821	0.6998	3.9820	0.8820	0.6617	1.5438	0.0000	7,112.4181	7,112.4181	0.8338	0.0000	7,133.2628
Maximum	**11.1271**	**72.0003**	**49.4745**	**0.1021**	**26.9796**	**3.2489**	**30.2285**	**13.5909**	**2.9890**	**16.5799**	**0.0000**	**9,898.6957**	**9,898.6957**	**3.1421**	**0.0000**	**9,977.2475**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.9403	40.5359	21.5365	0.0390	8.2435	2.0452	10.2887	4.4990	1.8816	6.3805	0.0000	3,784.4992	3,784.4992	1.1951	0.0000	3,814.3756
2022	6.8975	72.0003	49.4745	0.1021	12.2728	3.2489	15.5217	6.1509	2.9890	9.1399	0.0000	9,898.6957	9,898.6957	3.1421	0.0000	9,977.2475
2023	11.1271	23.2022	28.1583	0.0719	3.2821	0.7974	4.0795	0.8820	0.7543	1.6363	0.0000	7,212.0674	7,212.0674	0.8410	0.0000	7,233.0919
2024	10.9338	21.9428	27.3092	0.0709	3.2821	0.6998	3.9820	0.8820	0.6617	1.5438	0.0000	7,112.4181	7,112.4181	0.8338	0.0000	7,133.2628
Maximum	**11.1271**	**72.0003**	**49.4745**	**0.1021**	**12.2728**	**3.2489**	**15.5217**	**6.1509**	**2.9890**	**9.1399**	**0.0000**	**9,898.6957**	**9,898.6957**	**3.1421**	**0.0000**	**9,977.2475**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**47.64**	**0.00**	**42.11**	**50.96**	**0.00**	**40.83**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Energy	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Mobile	3.4466	11.9438	34.2909	0.1056	10.4961	0.0881	10.5842	2.8125	0.0823	2.8948		10,741.7072	10,741.7072	0.4852		10,753.8368
Total	**12.3310**	**13.2597**	**62.1509**	**0.1134**	**10.4961**	**0.3209**	**10.8170**	**2.8125**	**0.3151**	**3.1276**	**0.0000**	**12,067.6754**	**12,067.6754**	**0.5573**	**0.0234**	**12,088.5816**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Energy	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
Mobile	3.3185	11.1606	31.1117	0.0930	9.1557	0.0785	9.2342	2.4533	0.0733	2.5266		9,467.7344	9,467.7344	0.4380		9,478.6848
Total	**12.2029**	**12.4765**	**58.9716**	**0.1009**	**9.1557**	**0.3113**	**9.4670**	**2.4533**	**0.3061**	**2.7594**	**0.0000**	**10,793.7026**	**10,793.7026**	**0.5101**	**0.0234**	**10,813.4296**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	1.04	5.91	5.12	11.06	12.77	2.99	12.48	12.77	2.85	11.77	0.00	10.56	10.56	8.46	0.00	10.55

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2021	2/28/2022	6	155	
2	Grading	Grading	1/1/2022	4/30/2022	6	103	
3	Site Utilities	Trenching	4/1/2022	6/30/2022	6	78	
4	Paving	Paving	6/1/2022	7/30/2022	6	52	
5	Building Construction	Building Construction	8/1/2022	8/31/2024	6	654	
6	Architectural Coating	Architectural Coating	8/1/2023	8/31/2024	6	341	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 257.5

Acres of Paving: 4.47

Residential Indoor: 672,300; Residential Outdoor: 224,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 13,032 (Architectural Coating – sqft)

OffRoad Equipment

Heritage Ridge Residential Project - AQ - Santa Barbara County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Excavators	3	8.00	158	0.38
Site Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Trenchers	1	4.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	367.00	85.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0522	0.0389	0.3822	9.9000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		98.8423	98.8423	3.0400e-003		98.9183
Total	**0.0522**	**0.0389**	**0.3822**	**9.9000e-004**	**0.1137**	**7.0000e-004**	**0.1144**	**0.0302**	**6.5000e-004**	**0.0308**		**98.8423**	**98.8423**	**3.0400e-003**		**98.9183**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**8.1298**	**2.0445**	**10.1743**	**4.4688**	**1.8809**	**6.3497**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0522	0.0389	0.3822	9.9000e-004	0.1137	7.0000e-004	0.1144	0.0302	6.5000e-004	0.0308		98.8423	98.8423	3.0400e-003		98.9183
Total	**0.0522**	**0.0389**	**0.3822**	**9.9000e-004**	**0.1137**	**7.0000e-004**	**0.1144**	**0.0302**	**6.5000e-004**	**0.0308**		**98.8423**	**98.8423**	**3.0400e-003**		**98.9183**

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		95.3163	95.3163	2.7100e-003		95.3840
Total	**0.0486**	**0.0347**	**0.3483**	**9.6000e-004**	**0.1137**	**6.8000e-004**	**0.1144**	**0.0302**	**6.3000e-004**	**0.0308**		**95.3163**	**95.3163**	**2.7100e-003**		**95.3840**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.1298**	**1.6126**	**9.7424**	**4.4688**	**1.4836**	**5.9524**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308		95.3163	95.3163	2.7100e-003		95.3840
Total	**0.0486**	**0.0347**	**0.3483**	**9.6000e-004**	**0.1137**	**6.8000e-004**	**0.1144**	**0.0302**	**6.3000e-004**	**0.0308**		**95.3163**	**95.3163**	**2.7100e-003**		**95.3840**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0540	0.0386	0.3870	1.0600e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		105.9070	105.9070	3.0100e-003		105.9822
Total	**0.0540**	**0.0386**	**0.3870**	**1.0600e-003**	**0.1263**	**7.6000e-004**	**0.1271**	**0.0335**	**7.0000e-004**	**0.0342**		**105.9070**	**105.9070**	**3.0100e-003**		**105.9822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**3.9030**	**1.6349**	**5.5379**	**1.6184**	**1.5041**	**3.1225**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0540	0.0386	0.3870	1.0600e-003	0.1263	7.6000e-004	0.1271	0.0335	7.0000e-004	0.0342		105.9070	105.9070	3.0100e-003		105.9822
Total	**0.0540**	**0.0386**	**0.3870**	**1.0600e-003**	**0.1263**	**7.6000e-004**	**0.1271**	**0.0335**	**7.0000e-004**	**0.0342**		**105.9070**	**105.9070**	**3.0100e-003**		**105.9822**

3.4 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131		2,265.9984	2,265.9984	0.7329		2,284.3202
Total	**1.1186**	**10.3720**	**15.5408**	**0.0234**		**0.5577**	**0.5577**		**0.5131**	**0.5131**		**2,265.9984**	**2,265.9984**	**0.7329**		**2,284.3202**

3.4 Site Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866
Total	**0.0405**	**0.0289**	**0.2902**	**8.0000e-004**	**0.0947**	**5.7000e-004**	**0.0953**	**0.0251**	**5.2000e-004**	**0.0257**		**79.4303**	**79.4303**	**2.2600e-003**		**79.4866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1186	10.3720	15.5408	0.0234		0.5577	0.5577		0.5131	0.5131	0.0000	2,265.9984	2,265.9984	0.7329		2,284.3202
Total	**1.1186**	**10.3720**	**15.5408**	**0.0234**		**0.5577**	**0.5577**		**0.5131**	**0.5131**	**0.0000**	**2,265.9984**	**2,265.9984**	**0.7329**		**2,284.3202**

3.4 Site Utilities - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866
Total	**0.0405**	**0.0289**	**0.2902**	**8.0000e-004**	**0.0947**	**5.7000e-004**	**0.0953**	**0.0251**	**5.2000e-004**	**0.0257**		**79.4303**	**79.4303**	**2.2600e-003**		**79.4866**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3280**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866
Total	**0.0405**	**0.0289**	**0.2902**	**8.0000e-004**	**0.0947**	**5.7000e-004**	**0.0953**	**0.0251**	**5.2000e-004**	**0.0257**		**79.4303**	**79.4303**	**2.2600e-003**		**79.4866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2252					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3280**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257		79.4303	79.4303	2.2600e-003		79.4866
Total	**0.0405**	**0.0289**	**0.2902**	**8.0000e-004**	**0.0947**	**5.7000e-004**	**0.0953**	**0.0251**	**5.2000e-004**	**0.0257**		**79.4303**	**79.4303**	**2.2600e-003**		**79.4866**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2532	8.1177	2.5707	0.0199	0.5033	0.0220	0.5254	0.1448	0.0211	0.1659		2,171.0179	2,171.0179	0.1636		2,175.1089
Worker	0.9901	0.7079	7.1011	0.0195	2.3178	0.0139	2.3317	0.6149	0.0128	0.6277		1,943.3938	1,943.3938	0.0552		1,944.7732
Total	**1.2433**	**8.8256**	**9.6718**	**0.0394**	**2.8211**	**0.0359**	**2.8570**	**0.7597**	**0.0339**	**0.7936**		**4,114.4116**	**4,114.4116**	**0.2188**		**4,119.8821**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2532	8.1177	2.5707	0.0199	0.5033	0.0220	0.5254	0.1448	0.0211	0.1659		2,171.0179	2,171.0179	0.1636		2,175.1089
Worker	0.9901	0.7079	7.1011	0.0195	2.3178	0.0139	2.3317	0.6149	0.0128	0.6277		1,943.3938	1,943.3938	0.0552		1,944.7732
Total	**1.2433**	**8.8256**	**9.6718**	**0.0394**	**2.8211**	**0.0359**	**2.8570**	**0.7597**	**0.0339**	**0.7936**		**4,114.4116**	**4,114.4116**	**0.2188**		**4,119.8821**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1968	6.7541	2.3242	0.0195	0.5033	0.0106	0.5139	0.1448	0.0101	0.1550		2,132.5462	2,132.5462	0.1573		2,136.4780
Worker	0.9241	0.6341	6.4884	0.0188	2.3178	0.0135	2.3313	0.6149	0.0125	0.6274		1,870.7518	1,870.7518	0.0492		1,871.9826
Total	**1.1209**	**7.3882**	**8.8126**	**0.0382**	**2.8211**	**0.0241**	**2.8452**	**0.7597**	**0.0226**	**0.7823**		**4,003.2981**	**4,003.2981**	**0.2065**		**4,008.4606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1968	6.7541	2.3242	0.0195	0.5033	0.0106	0.5139	0.1448	0.0101	0.1550		2,132.5462	2,132.5462	0.1573		2,136.4780
Worker	0.9241	0.6341	6.4884	0.0188	2.3178	0.0135	2.3313	0.6149	0.0125	0.6274		1,870.7518	1,870.7518	0.0492		1,871.9826
Total	**1.1209**	**7.3882**	**8.8126**	**0.0382**	**2.8211**	**0.0241**	**2.8452**	**0.7597**	**0.0226**	**0.7823**		**4,003.2981**	**4,003.2981**	**0.2065**		**4,008.4606**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1862	6.5976	2.1869	0.0193	0.5033	9.8100e-003	0.5131	0.1448	9.3800e-003	0.1542		2,119.3148	2,119.3148	0.1608		2,123.3353
Worker	0.8652	0.5694	5.9599	0.0181	2.3178	0.0132	2.3310	0.6149	0.0121	0.6270		1,798.2636	1,798.2636	0.0440		1,799.3639
Total	**1.0514**	**7.1670**	**8.1468**	**0.0373**	**2.8211**	**0.0230**	**2.8441**	**0.7597**	**0.0215**	**0.7812**		**3,917.5784**	**3,917.5784**	**0.2048**		**3,922.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1862	6.5976	2.1869	0.0193	0.5033	9.8100e-003	0.5131	0.1448	9.3800e-003	0.1542		2,119.3148	2,119.3148	0.1608		2,123.3353
Worker	0.8652	0.5694	5.9599	0.0181	2.3178	0.0132	2.3310	0.6149	0.0121	0.6270		1,798.2636	1,798.2636	0.0440		1,799.3639
Total	**1.0514**	**7.1670**	**8.1468**	**0.0373**	**2.8211**	**0.0230**	**2.8441**	**0.7597**	**0.0215**	**0.7812**		**3,917.5784**	**3,917.5784**	**0.2048**		**3,922.6992**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**8.2496**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1838	0.1261	1.2906	3.7400e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		372.1114	372.1114	9.7900e-003		372.3562
Total	**0.1838**	**0.1261**	**1.2906**	**3.7400e-003**	**0.4610**	**2.6900e-003**	**0.4637**	**0.1223**	**2.4800e-003**	**0.1248**		**372.1114**	**372.1114**	**9.7900e-003**		**372.3562**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**8.2496**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1838	0.1261	1.2906	3.7400e-003	0.4610	2.6900e-003	0.4637	0.1223	2.4800e-003	0.1248		372.1114	372.1114	9.7900e-003		372.3562
Total	**0.1838**	**0.1261**	**1.2906**	**3.7400e-003**	**0.4610**	**2.6900e-003**	**0.4637**	**0.1223**	**2.4800e-003**	**0.1248**		**372.1114**	**372.1114**	**9.7900e-003**		**372.3562**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**8.2387**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1721	0.1133	1.1855	3.5900e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		357.6928	357.6928	8.7500e-003		357.9116
Total	**0.1721**	**0.1133**	**1.1855**	**3.5900e-003**	**0.4610**	**2.6200e-003**	**0.4637**	**0.1223**	**2.4100e-003**	**0.1247**		**357.6928**	**357.6928**	**8.7500e-003**		**357.9116**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**8.2387**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1721	0.1133	1.1855	3.5900e-003	0.4610	2.6200e-003	0.4637	0.1223	2.4100e-003	0.1247		357.6928	357.6928	8.7500e-003		357.9116
Total	**0.1721**	**0.1133**	**1.1855**	**3.5900e-003**	**0.4610**	**2.6200e-003**	**0.4637**	**0.1223**	**2.4100e-003**	**0.1247**		**357.6928**	**357.6928**	**8.7500e-003**		**357.9116**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

Provide Traffic Calming Measures

Limit Parking Supply

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3185	11.1606	31.1117	0.0930	9.1557	0.0785	9.2342	2.4533	0.0733	2.5266		9,467.7344	9,467.7344	0.4380		9,478.6848
Unmitigated	3.4466	11.9438	34.2909	0.1056	10.4961	0.0881	10.5842	2.8125	0.0823	2.8948		10,741.7072	10,741.7072	0.4852		10,753.8368

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	792.50	895.00	758.75	1,761,031	1,536,144
Apartments Mid Rise	1,312.38	1,322.73	1213.02	2,914,159	2,542,015
City Park	100.00	45.50	33.48	181	158
Parking Lot	0.00	0.00	0.00		
Total	2,204.88	2,263.23	2,005.25	4,675,371	4,078,317

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	6.03	6.03	6.03	25.60	9.90	64.50	100	0	0
Apartments Mid Rise	6.16	6.16	6.16	25.60	9.90	64.50	100	0	0
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Apartments Mid Rise	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
City Park	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153
NaturalGas Unmitigated	0.1170	1.0000	0.4255	6.3800e-003		0.0809	0.0809		0.0809	0.0809		1,276.5296	1,276.5296	0.0245	0.0234	1,284.1153

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	4369.72	0.0471	0.4027	0.1714	2.5700e-003		0.0326	0.0326		0.0326	0.0326		514.0850	514.0850	9.8500e-003	9.4200e-003	517.1400
Apartments Mid Rise	6480.78	0.0699	0.5973	0.2542	3.8100e-003		0.0483	0.0483		0.0483	0.0483		762.4446	762.4446	0.0146	0.0140	766.9754
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1170**	**1.0000**	**0.4255**	**6.3800e-003**		**0.0809**	**0.0809**		**0.0809**	**0.0809**		**1,276.5296**	**1,276.5296**	**0.0245**	**0.0234**	**1,284.1153**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	4.36972	0.0471	0.4027	0.1714	2.5700e-003		0.0326	0.0326		0.0326	0.0326		514.0850	514.0850	9.8500e-003	9.4200e-003	517.1400
Apartments Mid Rise	6.48078	0.0699	0.5973	0.2542	3.8100e-003		0.0483	0.0483		0.0483	0.0483		762.4446	762.4446	0.0146	0.0140	766.9754
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1170**	**1.0000**	**0.4255**	**6.3800e-003**		**0.0809**	**0.0809**		**0.0809**	**0.0809**		**1,276.5296**	**1,276.5296**	**0.0245**	**0.0234**	**1,284.1153**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295
Unmitigated	8.7674	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520	0.0000	49.4386	49.4386	0.0476	0.0000	50.6295

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8284	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520		49.4386	49.4386	0.0476		50.6295
Total	**8.7674**	**0.3160**	**27.4345**	**1.4500e-003**		**0.1520**	**0.1520**		**0.1520**	**0.1520**	**0.0000**	**49.4386**	**49.4386**	**0.0476**	**0.0000**	**50.6295**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7528					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.1862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8284	0.3160	27.4345	1.4500e-003		0.1520	0.1520		0.1520	0.1520		49.4386	49.4386	0.0476		50.6295
Total	**8.7674**	**0.3160**	**27.4345**	**1.4500e-003**		**0.1520**	**0.1520**		**0.1520**	**0.1520**	**0.0000**	**49.4386**	**49.4386**	**0.0476**	**0.0000**	**50.6295**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Heritage Ridge - Preconstruction Export Scenario 1 (9CY Trucks) - AQ

Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Residential	1.00	Dwelling Unit	16.05	699,138.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage and sf per PD; User-Defined Res for pre-construction export of stockpiled material

Construction Phase - 27 weeks

Off-road Equipment - Equip per applicant info

Trips and VMT - 115,000 CY export with truck haul capacity 9 CY = 25,556 one-way haul trips. 3 workers on site per day.

Grading -

Energy Use -

Construction Off-road Equipment Mitigation - Veh speed per applicant; SBCAPCD dust control requirements = water 2x daily

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	30.00	162.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	115,000.00
tblLandUse	LandUseSquareFeet	0.00	699,138.00
tblLandUse	LotAcreage	0.00	16.05
tblLandUse	Population	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Pre-Construction Export - Grading
tblTripsAndVMT	HaulingTripNumber	14,375.00	25,556.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1031	2.7937	0.9587	6.9000e-003	0.2532	0.0287	0.2819	0.0595	0.0267	0.0862	0.0000	692.1956	692.1956	0.0779	0.0000	694.1419
2022	0.0514	1.3769	0.5042	3.6900e-003	0.2366	0.0133	0.2499	0.0535	0.0124	0.0659	0.0000	371.2636	371.2636	0.0433	0.0000	372.3458
Maximum	**0.1031**	**2.7937**	**0.9587**	**6.9000e-003**	**0.2532**	**0.0287**	**0.2819**	**0.0595**	**0.0267**	**0.0862**	**0.0000**	**692.1956**	**692.1956**	**0.0779**	**0.0000**	**694.1419**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1031	2.7937	0.9587	6.9000e-003	0.2245	0.0287	0.2532	0.0561	0.0267	0.0828	0.0000	692.1956	692.1956	0.0779	0.0000	694.1418
2022	0.0514	1.3769	0.5042	3.6900e-003	0.2079	0.0133	0.2212	0.0502	0.0124	0.0626	0.0000	371.2635	371.2635	0.0433	0.0000	372.3458
Maximum	**0.1031**	**2.7937**	**0.9587**	**6.9000e-003**	**0.2245**	**0.0287**	**0.2532**	**0.0561**	**0.0267**	**0.0828**	**0.0000**	**692.1956**	**692.1956**	**0.0779**	**0.0000**	**694.1418**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**11.73**	**0.00**	**10.81**	**5.89**	**0.00**	**4.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	8-15-2021	11-14-2021	1.7482	1.7482
4	11-15-2021	2-14-2022	2.0523	2.0523
5	2-15-2022	5-14-2022	0.4667	0.4667
		Highest	2.0523	2.0523

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0041**	**9.0000e-005**	**7.4200e-003**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0124**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0041**	**9.0000e-005**	**7.4200e-003**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0124**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Pre-Construction Export - Grading	Grading	9/1/2021	3/8/2022	6	162	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pre-Construction Export - Grading	Crawler Tractors	1	8.00	212	0.43
Pre-Construction Export - Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pre-Construction Export - Grading	2	6.00	0.00	25,556.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Pre-Construction Export - Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0523	0.0000	0.0523	6.0500e-003	0.0000	6.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4654	0.2465	5.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536
Total	**0.0388**	**0.4654**	**0.2465**	**5.8000e-004**	**0.0523**	**0.0196**	**0.0719**	**6.0500e-003**	**0.0181**	**0.0241**	**0.0000**	**50.5449**	**50.5449**	**0.0164**	**0.0000**	**50.9536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0634	2.3276	0.7054	6.3000e-003	0.1990	9.0200e-003	0.2081	0.0529	8.6300e-003	0.0615	0.0000	640.1157	640.1157	0.0615	0.0000	641.6521
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.6000e-004	6.7600e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5350	1.5350	5.0000e-005	0.0000	1.5362
Total	**0.0644**	**2.3284**	**0.7122**	**6.3200e-003**	**0.2010**	**9.0300e-003**	**0.2100**	**0.0534**	**8.6400e-003**	**0.0621**	**0.0000**	**641.6507**	**641.6507**	**0.0615**	**0.0000**	**643.1883**

3.2 Pre-Construction Export - Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0235	0.0000	0.0235	2.7200e-003	0.0000	2.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4654	0.2465	5.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536
Total	**0.0388**	**0.4654**	**0.2465**	**5.8000e-004**	**0.0235**	**0.0196**	**0.0432**	**2.7200e-003**	**0.0181**	**0.0208**	**0.0000**	**50.5449**	**50.5449**	**0.0164**	**0.0000**	**50.9536**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0634	2.3276	0.7054	6.3000e-003	0.1990	9.0200e-003	0.2081	0.0529	8.6300e-003	0.0615	0.0000	640.1157	640.1157	0.0615	0.0000	641.6521
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.6000e-004	6.7600e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5350	1.5350	5.0000e-005	0.0000	1.5362
Total	**0.0644**	**2.3284**	**0.7122**	**6.3200e-003**	**0.2010**	**9.0300e-003**	**0.2100**	**0.0534**	**8.6400e-003**	**0.0621**	**0.0000**	**641.6507**	**641.6507**	**0.0615**	**0.0000**	**643.1883**

3.2 Pre-Construction Export - Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0523	0.0000	0.0523	6.0500e-003	0.0000	6.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.2190	0.1298	3.1000e-004		9.0300e-003	9.0300e-003		8.3100e-003	8.3100e-003	0.0000	27.4131	27.4131	8.8700e-003	0.0000	27.6347
Total	**0.0187**	**0.2190**	**0.1298**	**3.1000e-004**	**0.0523**	**9.0300e-003**	**0.0613**	**6.0500e-003**	**8.3100e-003**	**0.0144**	**0.0000**	**27.4131**	**27.4131**	**8.8700e-003**	**0.0000**	**27.6347**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0323	1.1575	0.3711	3.3600e-003	0.1833	4.2200e-003	0.1875	0.0472	4.0400e-003	0.0512	0.0000	343.0469	343.0469	0.0344	0.0000	343.9069
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.7000e-004	3.3400e-003	1.0000e-005	1.0600e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8036	0.8036	2.0000e-005	0.0000	0.8042
Total	**0.0327**	**1.1579**	**0.3744**	**3.3700e-003**	**0.1844**	**4.2300e-003**	**0.1886**	**0.0475**	**4.0500e-003**	**0.0515**	**0.0000**	**343.8505**	**343.8505**	**0.0344**	**0.0000**	**344.7111**

3.2 Pre-Construction Export - Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0235	0.0000	0.0235	2.7200e-003	0.0000	2.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.2190	0.1298	3.1000e-004		9.0300e-003	9.0300e-003		8.3100e-003	8.3100e-003	0.0000	27.4130	27.4130	8.8700e-003	0.0000	27.6347
Total	**0.0187**	**0.2190**	**0.1298**	**3.1000e-004**	**0.0235**	**9.0300e-003**	**0.0326**	**2.7200e-003**	**8.3100e-003**	**0.0110**	**0.0000**	**27.4130**	**27.4130**	**8.8700e-003**	**0.0000**	**27.6347**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0323	1.1575	0.3711	3.3600e-003	0.1833	4.2200e-003	0.1875	0.0472	4.0400e-003	0.0512	0.0000	343.0469	343.0469	0.0344	0.0000	343.9069
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.7000e-004	3.3400e-003	1.0000e-005	1.0600e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8036	0.8036	2.0000e-005	0.0000	0.8042
Total	**0.0327**	**1.1579**	**0.3744**	**3.3700e-003**	**0.1844**	**4.2300e-003**	**0.1886**	**0.0475**	**4.0500e-003**	**0.0515**	**0.0000**	**343.8505**	**343.8505**	**0.0344**	**0.0000**	**344.7111**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Residential	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Residential	8.30	4.50	4.90	25.60	9.90	64.50	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Residential	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Unmitigated	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Total	**3.0041**	**9.0000e-005**	**7.4200e-003**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0124**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Total	**3.0041**	**9.0000e-005**	**7.4200e-003**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0124**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Residential	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Residential	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ

Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Residential	1.00	Dwelling Unit	16.05	699,138.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage and sf per PD; User-Defined Res for pre-construction export of stockpiled material

Construction Phase - 24 weeks

Off-road Equipment - Equip per applicant info

Trips and VMT - 115,000 CY export with truck haul capacity 20 CY = 11,500 one-way haul trips. 3 workers on site per day.

Grading -

Energy Use -

Construction Off-road Equipment Mitigation - Veh speed per applicant; SBCAPCD dust control requirement = water 2x daily

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	30.00	144.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	115,000.00
tblLandUse	LandUseSquareFeet	0.00	699,138.00
tblLandUse	LotAcreage	0.00	16.05
tblLandUse	Population	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	11,500.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0718	1.6445	0.6104	3.7800e-003	0.1409	0.0242	0.1651	0.0306	0.0224	0.0530	0.0000	376.1329	376.1329	0.0475	0.0000	377.3205
2022	0.0243	0.5510	0.2196	1.3800e-003	0.1288	7.6500e-003	0.1364	0.0263	7.0900e-003	0.0334	0.0000	138.1292	138.1292	0.0180	0.0000	138.5791
Maximum	**0.0718**	**1.6445**	**0.6104**	**3.7800e-003**	**0.1409**	**0.0242**	**0.1651**	**0.0306**	**0.0224**	**0.0530**	**0.0000**	**376.1329**	**376.1329**	**0.0475**	**0.0000**	**377.3205**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0718	1.6445	0.6104	3.7800e-003	0.1148	0.0242	0.1390	0.0275	0.0224	0.0500	0.0000	376.1328	376.1328	0.0475	0.0000	377.3205
2022	0.0243	0.5510	0.2196	1.3800e-003	0.1027	7.6500e-003	0.1103	0.0232	7.0900e-003	0.0303	0.0000	138.1292	138.1292	0.0180	0.0000	138.5791
Maximum	**0.0718**	**1.6445**	**0.6104**	**3.7800e-003**	**0.1148**	**0.0242**	**0.1390**	**0.0275**	**0.0224**	**0.0500**	**0.0000**	**376.1328**	**376.1328**	**0.0475**	**0.0000**	**377.3205**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**19.37**	**0.00**	**17.32**	**10.74**	**0.00**	**7.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Heritage Ridge - Preconstruction Export Scenario 1 (20CY Trucks) - AQ - Santa Barbara County APCD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	8-15-2021	11-14-2021	1.0379	1.0379
4	11-15-2021	2-14-2022	1.2145	1.2145
5	2-15-2022	5-14-2022	0.0125	0.0125
		Highest	1.2145	1.2145

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0041**	**9.0000e-005**	**7.4200e-003**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0124**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0041**	**9.0000e-005**	**7.4200e-003**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0124**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Pre-Construction Export - Grading	Grading	9/1/2021	2/15/2022	6	144	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pre-Construction Export - Grading	Crawler Tractors	1	8.00	212	0.43
Pre-Construction Export - Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pre-Construction Export - Grading	2	6.00	0.00	11,500.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Pre-Construction Export - Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0475	0.0000	0.0475	5.5300e-003	0.0000	5.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4654	0.2465	5.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536
Total	**0.0388**	**0.4654**	**0.2465**	**5.8000e-004**	**0.0475**	**0.0196**	**0.0671**	**5.5300e-003**	**0.0181**	**0.0236**	**0.0000**	**50.5449**	**50.5449**	**0.0164**	**0.0000**	**50.9536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0321	1.1783	0.3571	3.1900e-003	0.0915	4.5600e-003	0.0961	0.0245	4.3700e-003	0.0289	0.0000	324.0529	324.0529	0.0311	0.0000	324.8307
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.6000e-004	6.7600e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5350	1.5350	5.0000e-005	0.0000	1.5362
Total	**0.0331**	**1.1791**	**0.3639**	**3.2100e-003**	**0.0935**	**4.5700e-003**	**0.0980**	**0.0250**	**4.3800e-003**	**0.0294**	**0.0000**	**325.5879**	**325.5879**	**0.0312**	**0.0000**	**326.3669**

3.2 Pre-Construction Export - Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0214	0.0000	0.0214	2.4900e-003	0.0000	2.4900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4654	0.2465	5.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	50.5449	50.5449	0.0164	0.0000	50.9536
Total	**0.0388**	**0.4654**	**0.2465**	**5.8000e-004**	**0.0214**	**0.0196**	**0.0410**	**2.4900e-003**	**0.0181**	**0.0206**	**0.0000**	**50.5449**	**50.5449**	**0.0164**	**0.0000**	**50.9536**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0321	1.1783	0.3571	3.1900e-003	0.0915	4.5600e-003	0.0961	0.0245	4.3700e-003	0.0289	0.0000	324.0529	324.0529	0.0311	0.0000	324.8307
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.6000e-004	6.7600e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5350	1.5350	5.0000e-005	0.0000	1.5362
Total	**0.0331**	**1.1791**	**0.3639**	**3.2100e-003**	**0.0935**	**4.5700e-003**	**0.0980**	**0.0250**	**4.3800e-003**	**0.0294**	**0.0000**	**325.5879**	**325.5879**	**0.0312**	**0.0000**	**326.3669**

3.2 Pre-Construction Export - Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0475	0.0000	0.0475	5.5300e-003	0.0000	5.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0128	0.1498	0.0888	2.1000e-004		6.1800e-003	6.1800e-003		5.6800e-003	5.6800e-003	0.0000	18.7563	18.7563	6.0700e-003	0.0000	18.9080
Total	**0.0128**	**0.1498**	**0.0888**	**2.1000e-004**	**0.0475**	**6.1800e-003**	**0.0537**	**5.5300e-003**	**5.6800e-003**	**0.0112**	**0.0000**	**18.7563**	**18.7563**	**6.0700e-003**	**0.0000**	**18.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0112	0.4009	0.1285	1.1700e-003	0.0806	1.4600e-003	0.0820	0.0205	1.4000e-003	0.0219	0.0000	118.8231	118.8231	0.0119	0.0000	119.1210
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.2900e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5498	0.5498	2.0000e-005	0.0000	0.5502
Total	**0.0115**	**0.4012**	**0.1308**	**1.1800e-003**	**0.0813**	**1.4600e-003**	**0.0828**	**0.0207**	**1.4000e-003**	**0.0221**	**0.0000**	**119.3729**	**119.3729**	**0.0119**	**0.0000**	**119.6712**

3.2 Pre-Construction Export - Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0214	0.0000	0.0214	2.4900e-003	0.0000	2.4900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0128	0.1498	0.0888	2.1000e-004		6.1800e-003	6.1800e-003		5.6800e-003	5.6800e-003	0.0000	18.7563	18.7563	6.0700e-003	0.0000	18.9079
Total	**0.0128**	**0.1498**	**0.0888**	**2.1000e-004**	**0.0214**	**6.1800e-003**	**0.0276**	**2.4900e-003**	**5.6800e-003**	**8.1700e-003**	**0.0000**	**18.7563**	**18.7563**	**6.0700e-003**	**0.0000**	**18.9079**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0112	0.4009	0.1285	1.1700e-003	0.0806	1.4600e-003	0.0820	0.0205	1.4000e-003	0.0219	0.0000	118.8231	118.8231	0.0119	0.0000	119.1210
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.5000e-004	2.2900e-003	1.0000e-005	7.2000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5498	0.5498	2.0000e-005	0.0000	0.5502
Total	**0.0115**	**0.4012**	**0.1308**	**1.1800e-003**	**0.0813**	**1.4600e-003**	**0.0828**	**0.0207**	**1.4000e-003**	**0.0221**	**0.0000**	**119.3729**	**119.3729**	**0.0119**	**0.0000**	**119.6712**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Residential	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Residential	8.30	4.50	4.90	25.60	9.90	64.50	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Residential	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Unmitigated	3.0041	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Total	**3.0041**	**9.0000e-005**	**7.4200e-003**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0124**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	9.0000e-005	7.4200e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0124
Total	**3.0041**	**9.0000e-005**	**7.4200e-003**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0124**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Residential	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Residential	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Heritage Ridge Residential Project - GHG

Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	543.00	Space	4.47	217,200.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Low Rise	125.00	Dwelling Unit	5.64	125,000.00	316
Apartments Mid Rise	207.00	Dwelling Unit	3.94	207,000.00	523

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	353.87	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Utility factor per 2030 RPS

Land Use - Low-rise = 2-story Buildings 1, 4, 5, and 6; Mid-rise = 3-story Buildings 2, 3, 7, 8, 9, and 10; Pop per PD (total 839); Total acreage 16.05

Construction Phase - Schedule per applicant; arch coating halfway through building construction

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trenching equip per previous CalEEMod run (2014)

Trips and VMT -

Grading - Export modeled separately

Architectural Coating -

Vehicle Trips - Trip rates per Associated Transportation Engineers (2021 Trip Gen); trip lengths per total project VMT (based solely on dwelling units)

Energy Use -

Construction Off-road Equipment Mitigation - SBCAPCD dust control requirement = water 2x daily

Mobile Land Use Mitigation -

Energy Mitigation - 2019 Energy Code requires 100% on-site solar

Water Mitigation - 20% indoor water red per Part 11 Title 24; Water-efficient irrigation per CalGreen

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	10.00	155.00
tblConstructionPhase	NumDays	30.00	103.00
tblConstructionPhase	NumDays	20.00	52.00
tblConstructionPhase	NumDays	300.00	654.00
tblConstructionPhase	NumDays	20.00	341.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LotAcreage	4.89	4.47
tblLandUse	LotAcreage	7.81	5.64
tblLandUse	LotAcreage	5.45	3.94
tblLandUse	Population	340.00	316.00
tblLandUse	Population	563.00	523.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	353.87
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	CC_TL	5.50	0.00
tblVehicleTrips	CNW_TL	6.40	0.00
tblVehicleTrips	CW_TL	6.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	4.90	6.03
tblVehicleTrips	HO_TL	4.90	6.16
tblVehicleTrips	HS_TL	4.50	6.03
tblVehicleTrips	HS_TL	4.50	6.16
tblVehicleTrips	HW_TL	8.30	6.03
tblVehicleTrips	HW_TL	8.30	6.16
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	WD_TR	6.59	6.34

tblVehicleTrips	WD_TR	6.65	6.34
tblVehicleTrips	WD_TR	1.89	50.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2069	2.1284	1.1309	2.0500e-003	0.9543	0.1074	1.0617	0.5229	0.0988	0.6217	0.0000	180.1426	180.1426	0.0569	0.0000	181.5655
2022	0.5478	5.1508	4.7528	0.0101	1.0957	0.2169	1.3126	0.4867	0.2007	0.6874	0.0000	903.6761	903.6761	0.2109	0.0000	908.9486
2023	0.9779	3.5118	4.1379	0.0105	0.4602	0.1178	0.5780	0.1241	0.1111	0.2351	0.0000	957.6839	957.6839	0.1172	0.0000	960.6139
2024	1.1518	2.3180	2.8831	7.3700e-003	0.3372	0.0735	0.4107	0.0908	0.0695	0.1603	0.0000	670.9655	670.9655	0.0797	0.0000	672.9573
Maximum	**1.1518**	**5.1508**	**4.7528**	**0.0105**	**1.0957**	**0.2169**	**1.3126**	**0.5229**	**0.2007**	**0.6874**	**0.0000**	**957.6839**	**957.6839**	**0.2109**	**0.0000**	**960.6139**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2069	2.1284	1.1309	2.0500e-003	0.4327	0.1074	0.5400	0.2362	0.0988	0.3349	0.0000	180.1424	180.1424	0.0569	0.0000	181.5653
2022	0.5478	5.1508	4.7528	0.0101	0.6016	0.2169	0.8186	0.2483	0.2007	0.4490	0.0000	903.6753	903.6753	0.2109	0.0000	908.9479
2023	0.9779	3.5118	4.1379	0.0105	0.4602	0.1178	0.5780	0.1241	0.1111	0.2351	0.0000	957.6834	957.6834	0.1172	0.0000	960.6135
2024	1.1518	2.3180	2.8831	7.3700e-003	0.3372	0.0735	0.4107	0.0908	0.0695	0.1603	0.0000	670.9652	670.9652	0.0797	0.0000	672.9569
Maximum	**1.1518**	**5.1508**	**4.7528**	**0.0105**	**0.6016**	**0.2169**	**0.8186**	**0.2483**	**0.2007**	**0.4490**	**0.0000**	**957.6834**	**957.6834**	**0.2109**	**0.0000**	**960.6135**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**35.67**	**0.00**	**30.20**	**42.89**	**0.00**	**30.81**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.7349	1.7349
2	12-1-2021	2-28-2022	2.5867	2.5867
3	3-1-2022	5-31-2022	1.4150	1.4150
4	6-1-2022	8-31-2022	0.8345	0.8345
5	9-1-2022	11-30-2022	1.0737	1.0737
6	12-1-2022	2-28-2023	0.9901	0.9901
7	3-1-2023	5-31-2023	0.9672	0.9672
8	6-1-2023	8-31-2023	1.0957	1.0957

9	**9-1-2023**	**11-30-2023**	1.3449	1.3449
10	**12-1-2023**	**2-29-2024**	1.3101	1.3101
11	**3-1-2024**	**5-31-2024**	1.2991	1.2991
12	**6-1-2024**	**8-31-2024**	1.2963	1.2963
		Highest	2.5867	2.5867

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Energy	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	439.0991	439.0991	0.0137	5.8100e-003	441.1717
Mobile	0.4038	1.6721	4.1518	0.0151	1.7689	0.0104	1.7794	0.4743	9.7200e-003	0.4840	0.0000	1,404.5607	1,404.5607	0.0647	0.0000	1,406.1788
Waste						0.0000	0.0000		0.0000	0.0000	31.7497	0.0000	31.7497	1.5744	0.0000	71.1087
Water						0.0000	0.0000		0.0000	0.0000	7.6531	27.7873	35.4405	0.0275	0.0169	41.1583
Total	**1.9480**	**1.8830**	**6.6931**	**0.0164**	**1.7689**	**0.0389**	**1.8078**	**0.4743**	**0.0382**	**0.5125**	**39.4028**	**1,875.4836**	**1,914.8864**	**1.6842**	**0.0227**	**1,963.7505**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Energy	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997
Mobile	0.3879	1.5784	3.7749	0.0133	1.5430	9.3400e-003	1.5524	0.4138	8.6900e-003	0.4224	0.0000	1,238.9576	1,238.9576	0.0586	0.0000	1,240.4228
Waste						0.0000	0.0000		0.0000	0.0000	31.7497	0.0000	31.7497	1.5744	0.0000	71.1087
Water						0.0000	0.0000		0.0000	0.0000	6.1225	24.0299	30.1524	0.0221	0.0135	34.7331
Total	**1.9321**	**1.7893**	**6.3162**	**0.0146**	**1.5430**	**0.0378**	**1.5808**	**0.4138**	**0.0371**	**0.4509**	**37.8722**	**1,478.3677**	**1,516.2399**	**1.6630**	**0.0174**	**1,562.9973**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.82**	**4.98**	**5.63**	**10.86**	**12.77**	**2.83**	**12.56**	**12.77**	**2.70**	**12.02**	**3.88**	**21.17**	**20.82**	**1.26**	**23.36**	**20.41**

3.0 Construction Detail

Construction Phase

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/1/2021	2/28/2022	6	155	
2	Grading	Grading	1/1/2022	4/30/2022	6	103	
3	Site Utilities	Trenching	4/1/2022	6/30/2022	6	78	
4	Paving	Paving	6/1/2022	7/30/2022	6	52	
5	Building Construction	Building Construction	8/1/2022	8/31/2024	6	654	
6	Architectural Coating	Architectural Coating	8/1/2023	8/31/2024	6	341	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 257.5

Acres of Paving: 4.47

Residential Indoor: 672,300; Residential Outdoor: 224,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 13,032 (Architectural Coating – sqft)

OffRoad Equipment

Heritage Ridge Residential Project - GHG - Santa Barbara County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Excavators	3	8.00	158	0.38
Site Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Utilities	Trenchers	1	4.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Utilities	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	367.00	85.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9485	0.0000	0.9485	0.5214	0.0000	0.5214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2041	2.1261	1.1106	2.0000e-003		0.1073	0.1073		0.0988	0.0988	0.0000	175.5375	175.5375	0.0568	0.0000	176.9568
Total	**0.2041**	**2.1261**	**1.1106**	**2.0000e-003**	**0.9485**	**0.1073**	**1.0558**	**0.5214**	**0.0988**	**0.6201**	**0.0000**	**175.5375**	**175.5375**	**0.0568**	**0.0000**	**176.9568**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087
Total	**2.8100e-003**	**2.2800e-003**	**0.0203**	**5.0000e-005**	**5.8400e-003**	**4.0000e-005**	**5.8700e-003**	**1.5500e-003**	**3.0000e-005**	**1.5800e-003**	**0.0000**	**4.6051**	**4.6051**	**1.4000e-004**	**0.0000**	**4.6087**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4268	0.0000	0.4268	0.2346	0.0000	0.2346	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2041	2.1261	1.1106	2.0000e-003		0.1073	0.1073		0.0988	0.0988	0.0000	175.5373	175.5373	0.0568	0.0000	176.9566
Total	**0.2041**	**2.1261**	**1.1106**	**2.0000e-003**	**0.4268**	**0.1073**	**0.5342**	**0.2346**	**0.0988**	**0.3334**	**0.0000**	**175.5373**	**175.5373**	**0.0568**	**0.0000**	**176.9566**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8100e-003	2.2800e-003	0.0203	5.0000e-005	5.8400e-003	4.0000e-005	5.8700e-003	1.5500e-003	3.0000e-005	1.5800e-003	0.0000	4.6051	4.6051	1.4000e-004	0.0000	4.6087
Total	**2.8100e-003**	**2.2800e-003**	**0.0203**	**5.0000e-005**	**5.8400e-003**	**4.0000e-005**	**5.8700e-003**	**1.5500e-003**	**3.0000e-005**	**1.5800e-003**	**0.0000**	**4.6051**	**4.6051**	**1.4000e-004**	**0.0000**	**4.6087**

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4517	0.0000	0.4517	0.2483	0.0000	0.2483	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0793	0.8271	0.4924	9.5000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	83.5985	83.5985	0.0270	0.0000	84.2744
Total	**0.0793**	**0.8271**	**0.4924**	**9.5000e-004**	**0.4517**	**0.0403**	**0.4920**	**0.2483**	**0.0371**	**0.2854**	**0.0000**	**83.5985**	**83.5985**	**0.0270**	**0.0000**	**84.2744**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162
Total	**1.2500e-003**	**9.7000e-004**	**8.7900e-003**	**2.0000e-005**	**2.7800e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.1147**	**2.1147**	**6.0000e-005**	**0.0000**	**2.1162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2033	0.0000	0.2033	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0793	0.8271	0.4924	9.5000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	83.5984	83.5984	0.0270	0.0000	84.2743
Total	**0.0793**	**0.8271**	**0.4924**	**9.5000e-004**	**0.2033**	**0.0403**	**0.2436**	**0.1117**	**0.0371**	**0.1488**	**0.0000**	**83.5984**	**83.5984**	**0.0270**	**0.0000**	**84.2743**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.7000e-004	8.7900e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.1147	2.1147	6.0000e-005	0.0000	2.1162
Total	**1.2500e-003**	**9.7000e-004**	**8.7900e-003**	**2.0000e-005**	**2.7800e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.1147**	**2.1147**	**6.0000e-005**	**0.0000**	**2.1162**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4467	0.0000	0.4467	0.1852	0.0000	0.1852	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1867	2.0004	1.4956	3.2000e-003		0.0842	0.0842		0.0775	0.0775	0.0000	280.8532	280.8532	0.0908	0.0000	283.1240
Total	**0.1867**	**2.0004**	**1.4956**	**3.2000e-003**	**0.4467**	**0.0842**	**0.5309**	**0.1852**	**0.0775**	**0.2627**	**0.0000**	**280.8532**	**280.8532**	**0.0908**	**0.0000**	**283.1240**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438
Total	**2.8600e-003**	**2.2200e-003**	**0.0201**	**5.0000e-005**	**6.3600e-003**	**4.0000e-005**	**6.4000e-003**	**1.6900e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**4.8403**	**4.8403**	**1.4000e-004**	**0.0000**	**4.8438**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2010	0.0000	0.2010	0.0834	0.0000	0.0834	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1867	2.0004	1.4956	3.2000e-003		0.0842	0.0842		0.0775	0.0775	0.0000	280.8529	280.8529	0.0908	0.0000	283.1237
Total	**0.1867**	**2.0004**	**1.4956**	**3.2000e-003**	**0.2010**	**0.0842**	**0.2852**	**0.0834**	**0.0775**	**0.1608**	**0.0000**	**280.8529**	**280.8529**	**0.0908**	**0.0000**	**283.1237**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8600e-003	2.2200e-003	0.0201	5.0000e-005	6.3600e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	4.8403	4.8403	1.4000e-004	0.0000	4.8438
Total	**2.8600e-003**	**2.2200e-003**	**0.0201**	**5.0000e-005**	**6.3600e-003**	**4.0000e-005**	**6.4000e-003**	**1.6900e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**4.8403**	**4.8403**	**1.4000e-004**	**0.0000**	**4.8438**

3.4 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1715	80.1715	0.0259	0.0000	80.8197
Total	**0.0436**	**0.4045**	**0.6061**	**9.1000e-004**		**0.0218**	**0.0218**		**0.0200**	**0.0200**	**0.0000**	**80.1715**	**80.1715**	**0.0259**	**0.0000**	**80.8197**

3.4 Site Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511
Total	**1.6200e-003**	**1.2600e-003**	**0.0114**	**3.0000e-005**	**3.6100e-003**	**2.0000e-005**	**3.6400e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.7491**	**2.7491**	**8.0000e-005**	**0.0000**	**2.7511**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0436	0.4045	0.6061	9.1000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	80.1714	80.1714	0.0259	0.0000	80.8196
Total	**0.0436**	**0.4045**	**0.6061**	**9.1000e-004**		**0.0218**	**0.0218**		**0.0200**	**0.0200**	**0.0000**	**80.1714**	**80.1714**	**0.0259**	**0.0000**	**80.8196**

3.4 Site Utilities - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6200e-003	1.2600e-003	0.0114	3.0000e-005	3.6100e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.7491	2.7491	8.0000e-005	0.0000	2.7511
Total	**1.6200e-003**	**1.2600e-003**	**0.0114**	**3.0000e-005**	**3.6100e-003**	**2.0000e-005**	**3.6400e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.7491**	**2.7491**	**8.0000e-005**	**0.0000**	**2.7511**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0287	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0717	52.0717	0.0168	0.0000	52.4927
Paving	5.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0345**	**0.2893**	**0.3791**	**5.9000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**52.0717**	**52.0717**	**0.0168**	**0.0000**	**52.4927**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340
Total	**1.0800e-003**	**8.4000e-004**	**7.6200e-003**	**2.0000e-005**	**2.4100e-003**	**1.0000e-005**	**2.4200e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8327**	**1.8327**	**5.0000e-005**	**0.0000**	**1.8340**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0287	0.2893	0.3791	5.9000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	52.0716	52.0716	0.0168	0.0000	52.4926
Paving	5.8600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0345**	**0.2893**	**0.3791**	**5.9000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**52.0716**	**52.0716**	**0.0168**	**0.0000**	**52.4926**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0800e-003	8.4000e-004	7.6200e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8327	1.8327	5.0000e-005	0.0000	1.8340
Total	**1.0800e-003**	**8.4000e-004**	**7.6200e-003**	**2.0000e-005**	**2.4100e-003**	**1.0000e-005**	**2.4200e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8327**	**1.8327**	**5.0000e-005**	**0.0000**	**1.8340**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9387	152.9387	0.0366	0.0000	153.8547
Total	**0.1126**	**1.0306**	**1.0800**	**1.7800e-003**		**0.0534**	**0.0534**		**0.0502**	**0.0502**	**0.0000**	**152.9387**	**152.9387**	**0.0366**	**0.0000**	**153.8547**

3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.5413	0.1785	1.3000e-003	0.0326	1.4900e-003	0.0341	9.4100e-003	1.4200e-003	0.0108	0.0000	128.6799	128.6799	0.0100	0.0000	128.9300
Worker	0.0672	0.0523	0.4731	1.2600e-003	0.1496	9.2000e-004	0.1505	0.0398	8.4000e-004	0.0406	0.0000	113.8260	113.8260	3.2800e-003	0.0000	113.9081
Total	**0.0843**	**0.5936**	**0.6516**	**2.5600e-003**	**0.1822**	**2.4100e-003**	**0.1846**	**0.0492**	**2.2600e-003**	**0.0514**	**0.0000**	**242.5059**	**242.5059**	**0.0133**	**0.0000**	**242.8381**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0306	1.0800	1.7800e-003		0.0534	0.0534		0.0502	0.0502	0.0000	152.9385	152.9385	0.0366	0.0000	153.8545
Total	**0.1126**	**1.0306**	**1.0800**	**1.7800e-003**		**0.0534**	**0.0534**		**0.0502**	**0.0502**	**0.0000**	**152.9385**	**152.9385**	**0.0366**	**0.0000**	**153.8545**

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.5413	0.1785	1.3000e-003	0.0326	1.4900e-003	0.0341	9.4100e-003	1.4200e-003	0.0108	0.0000	128.6799	128.6799	0.0100	0.0000	128.9300
Worker	0.0672	0.0523	0.4731	1.2600e-003	0.1496	9.2000e-004	0.1505	0.0398	8.4000e-004	0.0406	0.0000	113.8260	113.8260	3.2800e-003	0.0000	113.9081
Total	**0.0843**	**0.5936**	**0.6516**	**2.5600e-003**	**0.1822**	**2.4100e-003**	**0.1846**	**0.0492**	**2.2600e-003**	**0.0514**	**0.0000**	**242.5059**	**242.5059**	**0.0133**	**0.0000**	**242.8381**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6154	361.6154	0.0860	0.0000	363.7660
Total	**0.2454**	**2.2440**	**2.5341**	**4.2000e-003**		**0.1092**	**0.1092**		**0.1027**	**0.1027**	**0.0000**	**361.6154**	**361.6154**	**0.0860**	**0.0000**	**363.7660**

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	1.0625	0.3800	3.0000e-003	0.0771	1.6900e-003	0.0788	0.0222	1.6100e-003	0.0239	0.0000	298.7252	298.7252	0.0227	0.0000	299.2924
Worker	0.1483	0.1107	1.0200	2.8700e-003	0.3536	2.1100e-003	0.3557	0.0940	1.9400e-003	0.0959	0.0000	258.9895	258.9895	6.9100e-003	0.0000	259.1623
Total	**0.1798**	**1.1732**	**1.4000**	**5.8700e-003**	**0.4307**	**3.8000e-003**	**0.4345**	**0.1162**	**3.5500e-003**	**0.1198**	**0.0000**	**557.7147**	**557.7147**	**0.0296**	**0.0000**	**558.4547**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2454	2.2440	2.5341	4.2000e-003		0.1092	0.1092		0.1027	0.1027	0.0000	361.6150	361.6150	0.0860	0.0000	363.7655
Total	**0.2454**	**2.2440**	**2.5341**	**4.2000e-003**		**0.1092**	**0.1092**		**0.1027**	**0.1027**	**0.0000**	**361.6150**	**361.6150**	**0.0860**	**0.0000**	**363.7655**

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0316	1.0625	0.3800	3.0000e-003	0.0771	1.6900e-003	0.0788	0.0222	1.6100e-003	0.0239	0.0000	298.7252	298.7252	0.0227	0.0000	299.2924
Worker	0.1483	0.1107	1.0200	2.8700e-003	0.3536	2.1100e-003	0.3557	0.0940	1.9400e-003	0.0959	0.0000	258.9895	258.9895	6.9100e-003	0.0000	259.1623
Total	**0.1798**	**1.1732**	**1.4000**	**5.8700e-003**	**0.4307**	**3.8000e-003**	**0.4345**	**0.1162**	**3.5500e-003**	**0.1198**	**0.0000**	**557.7147**	**557.7147**	**0.0296**	**0.0000**	**558.4547**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4416	243.4416	0.0576	0.0000	244.8807
Total	**0.1545**	**1.4116**	**1.6975**	**2.8300e-003**		**0.0644**	**0.0644**		**0.0606**	**0.0606**	**0.0000**	**243.4416**	**243.4416**	**0.0576**	**0.0000**	**244.8807**

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.6982	0.2406	2.0100e-003	0.0519	1.0500e-003	0.0529	0.0150	1.0000e-003	0.0160	0.0000	199.8170	199.8170	0.0156	0.0000	200.2074
Worker	0.0935	0.0669	0.6297	1.8500e-003	0.2380	1.3800e-003	0.2394	0.0633	1.2700e-003	0.0645	0.0000	167.5670	167.5670	4.1500e-003	0.0000	167.6708
Total	**0.1136**	**0.7651**	**0.8703**	**3.8600e-003**	**0.2899**	**2.4300e-003**	**0.2923**	**0.0782**	**2.2700e-003**	**0.0805**	**0.0000**	**367.3841**	**367.3841**	**0.0198**	**0.0000**	**367.8782**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1545	1.4116	1.6975	2.8300e-003		0.0644	0.0644		0.0606	0.0606	0.0000	243.4413	243.4413	0.0576	0.0000	244.8804
Total	**0.1545**	**1.4116**	**1.6975**	**2.8300e-003**		**0.0644**	**0.0644**		**0.0606**	**0.0606**	**0.0000**	**243.4413**	**243.4413**	**0.0576**	**0.0000**	**244.8804**

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0201	0.6982	0.2406	2.0100e-003	0.0519	1.0500e-003	0.0529	0.0150	1.0000e-003	0.0160	0.0000	199.8170	199.8170	0.0156	0.0000	200.2074
Worker	0.0935	0.0669	0.6297	1.8500e-003	0.2380	1.3800e-003	0.2394	0.0633	1.2700e-003	0.0645	0.0000	167.5670	167.5670	4.1500e-003	0.0000	167.6708
Total	**0.1136**	**0.7651**	**0.8703**	**3.8600e-003**	**0.2899**	**2.4300e-003**	**0.2923**	**0.0782**	**2.2700e-003**	**0.0805**	**0.0000**	**367.3841**	**367.3841**	**0.0198**	**0.0000**	**367.8782**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488
Total	**0.5404**	**0.0854**	**0.1186**	**1.9000e-004**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**	**0.0000**	**16.7238**	**16.7238**	**1.0000e-003**	**0.0000**	**16.7488**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444
Total	**0.0124**	**9.2400e-003**	**0.0852**	**2.4000e-004**	**0.0295**	**1.8000e-004**	**0.0297**	**7.8500e-003**	**1.6000e-004**	**8.0100e-003**	**0.0000**	**21.6300**	**21.6300**	**5.8000e-004**	**0.0000**	**21.6444**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0854	0.1186	1.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	16.7238	16.7238	1.0000e-003	0.0000	16.7488
Total	**0.5404**	**0.0854**	**0.1186**	**1.9000e-004**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**	**0.0000**	**16.7238**	**16.7238**	**1.0000e-003**	**0.0000**	**16.7488**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0124	9.2400e-003	0.0852	2.4000e-004	0.0295	1.8000e-004	0.0297	7.8500e-003	1.6000e-004	8.0100e-003	0.0000	21.6300	21.6300	5.8000e-004	0.0000	21.6444
Total	**0.0124**	**9.2400e-003**	**0.0852**	**2.4000e-004**	**0.0295**	**1.8000e-004**	**0.0297**	**7.8500e-003**	**1.6000e-004**	**8.0100e-003**	**0.0000**	**21.6300**	**21.6300**	**5.8000e-004**	**0.0000**	**21.6444**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8092	26.8092	1.5100e-003	0.0000	26.8469
Total	**0.8651**	**0.1280**	**0.1901**	**3.1000e-004**		**6.4000e-003**	**6.4000e-003**		**6.4000e-003**	**6.4000e-003**	**0.0000**	**26.8092**	**26.8092**	**1.5100e-003**	**0.0000**	**26.8469**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514
Total	**0.0186**	**0.0133**	**0.1252**	**3.7000e-004**	**0.0473**	**2.7000e-004**	**0.0476**	**0.0126**	**2.5000e-004**	**0.0128**	**0.0000**	**33.3308**	**33.3308**	**8.3000e-004**	**0.0000**	**33.3514**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0190	0.1280	0.1901	3.1000e-004		6.4000e-003	6.4000e-003		6.4000e-003	6.4000e-003	0.0000	26.8091	26.8091	1.5100e-003	0.0000	26.8469
Total	**0.8651**	**0.1280**	**0.1901**	**3.1000e-004**		**6.4000e-003**	**6.4000e-003**		**6.4000e-003**	**6.4000e-003**	**0.0000**	**26.8091**	**26.8091**	**1.5100e-003**	**0.0000**	**26.8469**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0186	0.0133	0.1252	3.7000e-004	0.0473	2.7000e-004	0.0476	0.0126	2.5000e-004	0.0128	0.0000	33.3308	33.3308	8.3000e-004	0.0000	33.3514
Total	**0.0186**	**0.0133**	**0.1252**	**3.7000e-004**	**0.0473**	**2.7000e-004**	**0.0476**	**0.0126**	**2.5000e-004**	**0.0128**	**0.0000**	**33.3308**	**33.3308**	**8.3000e-004**	**0.0000**	**33.3514**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

Limit Parking Supply

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3879	1.5784	3.7749	0.0133	1.5430	9.3400e-003	1.5524	0.4138	8.6900e-003	0.4224	0.0000	1,238.9576	1,238.9576	0.0586	0.0000	1,240.4228
Unmitigated	0.4038	1.6721	4.1518	0.0151	1.7689	0.0104	1.7794	0.4743	9.7200e-003	0.4840	0.0000	1,404.5607	1,404.5607	0.0647	0.0000	1,406.1788

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	792.50	895.00	758.75	1,761,031	1,536,144
Apartments Mid Rise	1,312.38	1,322.73	1213.02	2,914,159	2,542,015
City Park	100.00	45.50	33.48	181	158
Parking Lot	0.00	0.00	0.00		
Total	2,204.88	2,263.23	2,005.25	4,675,371	4,078,317

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	6.03	6.03	6.03	25.60	9.90	64.50	100	0	0
Apartments Mid Rise	6.16	6.16	6.16	25.60	9.90	64.50	100	0	0
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
Apartments Mid Rise	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
City Park	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
Parking Lot	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	227.7553	227.7553	9.6500e-003	1.9300e-003	228.5720
NaturalGas Mitigated	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997
NaturalGas Unmitigated	0.0214	0.1825	0.0777	1.1600e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.3438	211.3438	4.0500e-003	3.8700e-003	212.5997

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.59495e+006	8.6000e-003	0.0735	0.0313	4.7000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	85.1125	85.1125	1.6300e-003	1.5600e-003	85.6183
Apartments Mid Rise	2.36548e+006	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2313	126.2313	2.4200e-003	2.3100e-003	126.9814
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0214**	**0.1825**	**0.0777**	**1.1700e-003**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**211.3438**	**211.3438**	**4.0500e-003**	**3.8700e-003**	**212.5997**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.59495e+006	8.6000e-003	0.0735	0.0313	4.7000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	85.1125	85.1125	1.6300e-003	1.5600e-003	85.6183
Apartments Mid Rise	2.36548e+006	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2313	126.2313	2.4200e-003	2.3100e-003	126.9814
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0214**	**0.1825**	**0.0777**	**1.1700e-003**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**211.3438**	**211.3438**	**4.0500e-003**	**3.8700e-003**	**212.5997**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	520016	83.4692	3.5400e-003	7.1000e-004	83.7686
Apartments Mid Rise	822887	132.0839	5.6000e-003	1.1200e-003	132.5575
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	76020	12.2022	5.2000e-004	1.0000e-004	12.2459
Total		**227.7553**	**9.6600e-003**	**1.9300e-003**	**228.5720**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Unmitigated	1.5229	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3115					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0740	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Total	**1.5229**	**0.0284**	**2.4636**	**1.3000e-004**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**4.0365**	**4.0365**	**3.8600e-003**	**0.0000**	**4.1330**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3115					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0740	0.0284	2.4636	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.0365	4.0365	3.8600e-003	0.0000	4.1330
Total	**1.5229**	**0.0284**	**2.4636**	**1.3000e-004**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**4.0365**	**4.0365**	**3.8600e-003**	**0.0000**	**4.1330**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	30.1524	0.0221	0.0135	34.7331
Unmitigated	35.4405	0.0275	0.0169	41.1583

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	8.14425 / 5.13442	12.8395	0.0103	6.3500e-003	14.9905
Apartments Mid Rise	13.4869 / 8.5026	21.2622	0.0171	0.0105	24.8242
City Park	0 / 2.38296	1.3387	6.0000e-005	1.0000e-005	1.3435
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**35.4405**	**0.0275**	**0.0169**	**41.1583**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	6.5154 / 5.13442	10.8485	8.3000e-003	5.0900e-003	12.5714
Apartments Mid Rise	10.7895 / 8.5026	17.9651	0.0137	8.4200e-003	20.8182
City Park	0 / 2.38296	1.3387	6.0000e-005	1.0000e-005	1.3435
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**30.1524**	**0.0221**	**0.0135**	**34.7331**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	31.7497	1.5744	0.0000	71.1087
Unmitigated	31.7497	1.5744	0.0000	71.1087

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	57.5	11.9406	0.5921	0.0000	26.7431
Apartments Mid Rise	95.22	19.7737	0.9805	0.0000	44.2866
City Park	0.17	0.0353	1.7500e-003	0.0000	0.0791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**31.7497**	**1.5744**	**0.0000**	**71.1087**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	57.5	11.9406	0.5921	0.0000	26.7431
Apartments Mid Rise	95.22	19.7737	0.9805	0.0000	44.2866
City Park	0.17	0.0353	1.7500e-003	0.0000	0.0791
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**31.7497**	**1.5744**	**0.0000**	**71.1087**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

VMT Calculations

	Project Size		Weekday	Saturday	Sunday	Annual Trips/size	Annual VMT/size	Trip Length	
Res Low-Rise	125	DU	6.34	7.16	6.07	2,336	14,082	6.03	mi/trip/dwelling unit
Res Mid-Rise	207	DU	6.34	6.39	5.86	2,285	14,082	6.16	mi/trip/dwelling unit
City Park	2	acre	50.00	22.75	16.74	-	-	0.00	mi/trip/acre

Daily Project VMT:	12,809
Annual Project VMT:	4,675,285

**all trips are primary trips (no diverted or pass-by)

38.58 VMT per dwelling unit (all units)

- VMT per acre

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 14-01022, Heritage Ridge

Vehicle Population Breakdown*	
291394	Gasoline vehicles
14545	Diesel vehicles
95.2%	Gasoline vehicle %
4.8%	Diesel vehicle %

VMT per Vehicle Type	
4078317	Project VMT (CalEEMod output)
3884431	Gasoline vehicle VMT
193886	Diesel vehicle VMT

Gasoline Vehicles	
95.2%	Gasoline vehicle %
1.5784	Tons per year mobile NOX emissions (annual output in CalEEMod)
1.50	Gasoline vehicle tons per year NOX emissions
0.0813	Tons per year N2O emissions for gasoline vehicles**
0.0738	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
127904.48	Diesel average miles per gallon*
0.00001	grams per mile N2O for diesel vehicles
2.4	grams per year N2O for diesel vehicles
0.0000024	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.0738	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
22.0	**CO2e emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources
***Vehicle population source:** Source: EMFAC2021 (v1.0.0) Emissions Inventory Region Type: Air District Region: Santa Barbara County APCD Calendar Year: 2030 Season: Annual Vehicle Classification: EMFAC2011 Categories ****Methodology source:** EMFAC2017 Volume III - Technical Documentation https://www.arb.ca.gov/msei/emfac2011-faq.htm *****GWP source:** Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: The Physical Science Basis. Contrbution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

Heritage Ridge Residential Project

Last Updated: 04/06/2021

Populate one of the following tables (Leave the other blank):

Annual VMT		OR	Daily Vehicle Trips	
Annual VMT:	4,675,285		Daily Vehicle Trips:	
			Average Trip Distance:	

Fleet Class	Fleet Mix
Light Duty Auto (LDA)	0.572071
Light Duty Truck 1 (LDT1)	0.027190
Light Duty Truck 2 (LDT2)	0.206810
Medium Duty Vehicle (MDV)	0.117824
Light Heavy Duty 1 (LHD1)	0.018361
Light Heavy Duty 2 (LHD2)	0.005136
Medium Heavy Duty (MHD)	0.017629
Heavy Heavy Duty (HHD)	0.020081
Other Bus (OBUS)	0.002790
Urban Bus (UBUS)	0.002084
Motorcycle (MCY)	0.006580
School Bus (SBUS)	0.002569
Motorhome (MH)	0.000873

Fuel Economy (MPG) [1]	
Passenger Vehicles	24.4
Light-Med Duty Trucks	17.9
Heavy Trucks/Other	7.5
Motorcycles	44

Fleet Mix

Vehicle Type	Percent	Fuel Type	Annual VMT: VMT	Vehicle Trips: VMT	Fuel Consumption (Gallons)
Passenger Vehicles	*57.21%*	*Gasoline*	2674595	0.00	109614.55
Light-Medium Duty Trucks	*35.18%*	*Gasoline*	1644877	0.00	91892.60
Heavy Trucks/Other	*6.95%*	*Diesel*	325040	0.00	43338.65
Motorcycle	*0.66%*	*Gasoline*	30763	0.00	699.17

Total Gasoline Consumption (gallons)	**202206.31**
Total Diesel Consumption (gallons)	**43338.65**

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2019. National Transportation Statistics 2019. Available at: https://www.bts.gov/topics/national-transportation-statistics.

Heritage Ridge Residential Project

Last Updated: 02/25/2021

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Rubber Tired Dozers	3	8	247	0.4	Site Preparation Phase	19,427.58
Tractors/Loaders/Backhoes	4	8	97	0.37	Site Preparation Phase	10,460.88
Excavators	2	8	158	0.38	Grading Phase	5,230.18
Graders	1	8	187	0.41	Grading Phase	3,339.42
Rubber Tired Dozers	1	8	247	0.4	Grading Phase	4,303.31
Scrapers	2	8	367	0.48	Grading Phase	15,345.58
Tractors/Loaders/Backhoes	2	8	97	0.37	Grading Phase	3,475.71
Excavators	3	8	158	0.38	Site Utilities Phase	5,941.08
Tractors/Loaders/Backhoes	2	8	97	0.37	Site Utilities Phase	2,632.09
Trenchers	1	4	78	0.5	Site Utilities Phase	715.04
Pavers	2	8	130	0.42	Paving Phase	2,401.24
Paving Equipment	2	8	132	0.36	Paving Phase	2,089.87
Rollers	2	8	80	0.38	Paving Phase	1,486.31
Cranes	1	7	231	0.29	Building Construction	8,452.42
Forklifts	3	8	89	0.2	Building Construction	8,560.49
Generator Sets	1	8	84	0.74	Building Construction	9,964.80
Tractors/Loaders/Backhoes	3	7	97	0.37	Building Construction	15,102.89
Welders	1	8	46	0.45	Building Construction	3,318.39
Air Compressors	1	6	78	0.48	Architectural Coating Phase	8,633.32
					Total Fuel Used	**130,880.62**
						(Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	155
Grading Phase	103
Site Utilities Phase	78
Paving Phase	52
Building Construction	654
Architectural Coating Phase	341
Total Days	1383

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.4	18	8.3	949.06
Grading Phase	24.4	20	8.3	700.74
Site Utilities Phase	24.4	15	8.3	397.99
Paving Phase	24.4	15	8.3	265.33
Building Construction	24.4	367	8.3	81645.47
Architectural Coating Phase	24.4	73	8.3	8467.70
			Fuel	**92,426.28**

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	0	20.0	0.00
Site Utilities Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Building Construction	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
			Fuel	**-**
VENDOR TRIPS				
Site Preparation Phase	7.5	0	6.4	0.00
Grading Phase	7.5	0	6.4	0.00
Site Utilities Phase	7.5	0	6.4	0.00
Paving Phase	7.5	0	6.4	0.00
Building Construction	7.5	85	6.4	47436.80
Architectural Coating Phase	7.5	0	6.4	0.00
			Fuel	**47,436.80**

Total Gasoline Consumption (gallons)	**92,426.28**
Total Diesel Consumption (gallons)	**178,317.42**

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b* . July 2018. Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2019. *National Transportation Statistics 2019* . Available at: https://www.bts.gov/topics/national-transportation-statistics.

Energy Unit Conversion Sheet

Gasoline

Gallons (gal.)	Barrels (bbl.)	Btu
202,206.31		

202206.31	gal.	0.00	gal.	0.00	gal.
202.21	Thousand gallons	0.00	Thousand gallons	0.00	Thousand gallons
0.20	Million gallons	0.00	Million gallons	0.00	Million gallons
4814.44	bbl.	0.00	bbl.	0.00	bbl.
4.81	Thousand bbl.	0.00	Thousand bbl.	0.00	Thousand bbl.
0.00	Million bbl.	0.00	Million bbl.	0.00	Million bbl.
238770.62	U.S. Therms	0.00	U.S. Therms	0.00	U.S. Therms
22199459630.81	British thermal units (Btu)	0.00	British thermal units (Btu)	0.00	British thermal units (Btu)
22199.46	Million Btu (MMBtu)	0.00	Million Btu (MMBtu)	0.00	Million Btu (MMBtu)

Diesel

Gallons (gal.)	Barrels (bbl.)	Btu
43,338.65	**-**	

43,338.65	gal.	-	gal.	-	gal.
43.34	Thousand gallons	-	Thousand gallons	-	Thousand gallons
0.04	Million gallons	-	Million gallons	-	Million gallons
1,031.87	bbl.	-	bbl.	-	bbl.
1.03	Thousand bbl.	-	Thousand bbl.	-	Thousand bbl.
0.00	Million bbl.	-	Million bbl.	-	Million bbl.
59,413.86	U.S. Therms	-	U.S. Therms	-	U.S. Therms
5,523,944,329.00	British thermal units (Btu)	-	British thermal units (Btu)	-	British thermal units (Btu)
5,523.94	Million Btu (MMBtu)	-	Million Btu (MMBtu)	-	Million Btu (MMBtu)

Electricity

Kilowatt-Hours (kWh)	U.S. Therm	Btu
1,418,923.00		

1,418,923.00	Kilowatt-Hours	-	Kilowatt-Hours	-	Kilowatt-Hours
1,418.92	Megawatt-Hours	-	Megawatt-Hours	-	Megawatt-Hours
1.42	Gigawatt-Hours	-	Gigawatt-Hours	-	Gigawatt-Hours
52,072.25	U.S. Therms	-	U.S. Therms	-	U.S. Therms
4,841,365,276.00	British thermal units (Btu)	-	British thermal units (Btu)	-	British thermal units (Btu)
4,841.37	Million Btu (MMBtu)	-	Million Btu (MMBtu)	-	Million Btu (MMBtu)

Natural Gas

Thousand Cubic Feet (Mcf)		U.S. Therm		Btu	3,960,430,000.00
-	Cubic Feet (cf)	-	Cubic Feet (cf)	3,819,122.47	Cubic Feet (cf)
-	Thousand Cubic Feet (Mcf)	-	Thousand Cubic Feet (Mcf)	3,819.12	Thousand Cubic Feet (Mcf)
-	Million Cubic Feet (MMcf)	-	Million Cubic Feet (MMcf)	3.82	Million Cubic Feet (MMcf)
-	U.S. Therms	-	U.S. Therms	42,597.18	U.S. Therms
-	British thermal units (Btu)	-	British thermal units (Btu)	3,960,430,000.00	British thermal units (Btu)
-	Million Btu (MMBtu)	-	Million Btu (MMBtu)	3,960.43	Million Btu (MMBtu)

Sources:

U.S. Energy Information Administration (EIA). May 2017. "Frequently Asked Questions: What are Ccf, Mcf, Btu, and therms? How do I convert natural gas prices in dollars per Ccf or Mcf to dollars per Btu or therm?" https://www.eia.gov/tools/faqs/faq.php?id=45&t=8. (accessed February 5, 2018).

Schremp, Gordon. 2017. Senior Fuels Specialist, California Energy Commission. Personal communication via phone and email regarding fuel consumption in California by County and by source with Lance Park, Associate Planner, Rincon Consultants, Inc. August 22, 2017.

Appendix C

Health Risk Assessment

City of Goleta

Heritage Ridge Residential Project

Health Risk Assessment

January 2016

rincon

Environmental Scientists Planners Engineers

Heritage Ridge Residential Project

Health Risk Assessment

Prepared for:

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Goleta, CA 93117

Prepared with the assistance of:

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January 2016

This report is printed on 50% recycled paper.

HEALTH RISK ASSESSMENT
Heritage Ridge Residential Project
City of Goleta

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HARP Model Risk Analysis Results

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HEALTH RISK ASSESSMENT
Heritage Ridge Residential Project
City of Goleta

This health risk assessment analyzes the possible health effects associated with existing air pollution sources at the proposed Heritage Ridge Residential Project (the "Project") in Goleta, CA. The report has been prepared under contract to the City of Goleta, and is intended to be used as information in the decision making process regarding land use permits for this site and for environmental documentation under the California Environmental Quality Act.

SUMMARY

The Project involves 360 residential units (132 senior housing units and 228 workforce homes) and associated amenities on a 17.36 acre property within the Inland Area of the City of Goleta (City). The Project site has a City General Plan/Coastal Land Use Plan (GP/CLUP) land use designation of Medium-Density Residential (R-MD) and a corresponding zoning of Design Residential (DR-20). The Project site is located along the south side of U.S. Highway 101 (U.S. 101) and the Union Pacific Railroad (UPRR) and the California Air Resources Board (CARB) currently recommends that local agencies avoid siting new sensitive land uses within 500 feet of a freeway (CARB, *Air Quality and Land Use Handbook*, April 2005). In addition, nearby businesses may emit additional hazardous air pollutants. These emissions are not expected to individually cause a risk, but may result in a cumulative risk to proposed on-site residential units when considered in combination with the TACs associated with the freeway and railroad operations. Based on these nearby emissions sources, the primary concern is the effect of diesel exhaust particulates, a toxic air contaminant, on sensitive uses. The primary sources of diesel exhaust particulates are heavy-duty trucks traveling on U.S. 101 and locomotives traveling along the UPRR rail line. This analysis also examined five other vehicle exhaust pollutants of concern that are emitted from both diesel and gasoline-fueled vehicles: acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene.

Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to the cancer-causing substance, typically over a specific exposure duration, such as the average residency (50-percentile) of 9 years or high-end residency (95-percentile) of 30 years. For example, a cancer risk of one in one million means that in a population of one million people, not more than one additional person would be expected to develop cancer as the result of the exposure to the substance causing that risk.

An analysis using the U.S. Environmental Protection Agency's (USEPA) AERMOD dispersion model and CARB Hotspots Analysis and Reporting Program (HARP) risk analysis tool determined that the proposed residential units on the Project site would be exposed to a high end (95-percentile) 30-year excess cancer risk of between 42 and 59 in one million, which exceeds the Santa Barbara County Air Pollution Control District (SBCAPCD) recommended health risk criteria of ten excess cases of cancer in one million individuals (1.0E-05) (SBCAPCD, August 2015). Thirty years is the exposure duration scenario recommended by the SBCAPCD in the *Modeling Guidelines for Health Risk Assessments* (August 2015). The health effects risk level for the average (50-percentile) residency of 9 years for an adult would be between 12 and 18 in one million, and for that of a child (9-years) would be between 18 and 26 in one million. Both of which also exceed the SBCAPCD health risk criteria. This analysis is based on outdoor air concentrations and assumes that interior concentrations would be the same, for a conservative analysis.

Potential acute and chronic health risks for on-site residential units were also determined to be lower than SBCAPCD health risk criteria.

USEPA activity factors show that people in a residential environment spend only a small portion of the day on an average basis outdoors. Therefore, a mitigation measure is recommended that includes forced air ventilation with filter screens with a MERV 13 rating on outside air intake ducts to be provided for all residential units on the Project site. MERV 13 filter screens are capable of removing at least 90% of the particulate matter including fine particulate matter. This would provide a clean interior environment and reduce the future residents' exposure to toxic air contaminants associated with U.S. 101 and the UPRR to below the ten in one million level for the average (50^{th} percentile) residency of 9 years for an adult and child and the high-end estimate for residency time (95^{th} percentile) of 30 years, which is the exposure duration recommended by SBCAPCD for HRAs.

PROJECT SITE AND DESCRIPTION

The Project site is currently vacant and lies north of Camino Vista Road and east of S. Los Carneros Road within the City of Goleta, in Santa Barbara County. The site is comprised of lots 1 through 13 of Tract No. 13646 in the City of Goleta, California, as per map recorded in book 150, pages 92 through 98 in the Office of the County Recorder of Santa Barbara County. These lots are also identified with assessor's parcel numbers (APN) 073-060-031 through -043. The Project site is bounded on its north by the Union Pacific Railroad (approximately 50 feet north of the Project site) and U.S. 101 (approximately 250 feet north of the Project site), on its east by existing business park development, to the west by a vacant site, and on its south by Camino Vista and residential uses.

The Project would develop the site with 360 residential units (132 senior housing units and 228 workforce homes) and associated amenities on a 17.36 acre property in the City of Goleta. The nearest habitable unit would be approximately 280 feet south of U.S. 101 and approximately 80 feet south of the UPRR.

AIR QUALITY BACKGROUND

Local Climate and Meteorology

The Project area is located within the South Central Coast Air Basin (SCCAB) which includes all of San Luis Obispo, Santa Barbara, and Ventura counties. The climate of the SCCAB is strongly influenced by its proximity to the Pacific Ocean and the location of the semi-permanent high-pressure cell in the northeastern Pacific. With a Mediterranean-type climate, the Project area is characterized by warm, dry summers and cool winters with occasional rainy periods. Annual precipitation averages 16 inches, with most rainfall between November and March. Average monthly temperatures range from a high of 79 degrees Fahrenheit (°F) in August to a low of 40°F in December.

Air pollutant emissions within the SCCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or

off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment such as when high winds suspend fine dust particles.

Air Pollutants of Concern

The Santa Barbara Air Pollution Control District (SBCAPCD) monitors air pollutant levels to assure that air quality standards are met, and if they are not met, to also develop strategies to meet the standards. The primary air pollutants of concern in Santa Barbara County include:

Ozone. Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_X) and reactive organic compounds (ROC)[1]. Nitrogen oxides are formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it occurs in serious concentrations primarily between the months of May and October. Ozone is a pungent, colorless toxic gas with direct health effects on humans, including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, persons with respiratory disorders, and people who exercise strenuously outdoors.

Suspended Particulates. PM_{10} is small particulate matter measuring no more than 10 microns in diameter, while $PM_{2.5}$ is fine particulate matter measuring no more than 2.5 microns in diameter. Both PM_{10} and $PM_{2.5}$ are comprised mostly of dust particles, nitrates, and sulfates. The characteristics, sources, and potential health effects associated with the small particulates (those between 2.5 and 10 microns in diameter) and fine particulates ($PM_{2.5}$) can be very different. The small particulates generally come from windblown dust and dust kicked up from mobile sources. The fine particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. PM_{10} is a by-product of fuel combustion and wind erosion of soil and unpaved roads, and is directly emitted into the atmosphere through these processes. PM_{10} is also created in the atmosphere through chemical reactions. Fine particulate matter poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

An important fraction of the particulate matter emission inventory is that formed by diesel engine fuel combustion. Particulates in diesel emissions are very small and readily respirable. The particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected mutagens and carcinogens. The California Office of Environmental Health Hazard Assessment (OEHHA) reviewed and evaluated the potential for diesel exhaust to affect human health, and the associated scientific uncertainties (California EPA, ARB, April 1998). Based on the available scientific evidence, it was determined that a level of diesel PM exposure below which no carcinogenic effects are anticipated has not been identified. The Scientific Review Panel that approved the OEHHA report determined that based on studies to date that 3 x 10-4 $(\mu g/m^3)^{-1}$ is a reasonable estimate of the unit risk for diesel PM. This means that a person exposed to a diesel PM concentration of 1 $\mu g/m^3$ continuously over the course of a lifetime has a 3 per 10,000 chance (or 300 in one million chance) of contracting cancer due to this exposure. Based on an estimated Year 2000 statewide average concentration of 1.26 $\mu g/m^3$ for indoor and outdoor ambient air, about 380 excess cancers per one million population could be expected if

[1] Reactive organic compounds (ROC) are sometimes referred to as reactive organic gases (ROG)

diesel PM concentrations remained the same (CARB, October 2000). Therefore, these particulate emissions have been determined by CARB to be a toxic air contaminant (TAC).

Compared to other air toxics CARB has identified and controlled, diesel PM emissions are estimated to be responsible for about 70% of the total ambient air toxics risk. In addition to these general risks, diesel PM can also be responsible for elevated localized or near-source exposures ("hot-spots"). Depending on the activity and nearness to receptors, these potential risks can range from small to 1,500 per million or more (CARB, October 2000). Risk characterization scenarios have been conducted by the ARB staff to determine the potential excess cancer risks involved due to the location of individuals near to various sources of diesel engine emissions, ranging from school buses to high volume freeways. The purpose of the risk characterization was to estimate, through air dispersion modeling, the cancer risk associated with typical diesel-fueled engine or vehicle activities based on modeled PM concentration at the point of maximum impact (PMI). The study included various sources of diesel PM emissions, including idling school buses, truck stops, low and high volume freeways, and other sources. High volume freeways were estimated to cause 800-1,700 per million potential excess cancers, while low volume freeways (similar to U.S. 101 at the site) were estimated to cause about 100 – 200 per million potential excess cancers. Please see further discussion concerning risk levels below in the Analysis Methodology section.

Besides diesel PM, several other pollutants are emitted by vehicle exhausts that are a public health concern. The USEPA has identified six pollutants of highest priority: diesel particulate matter (DPM), acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The latter five pollutants are part of the total organic gases emitted by vehicles both diesel and gasoline fueled. The following is a brief description of these chemicals:

- Acrolein. Acrolein is the simplest unsaturated aldehyde. It is a widely produced substance with a piercing, disagreeable, acrid smell similar to that of burning fat. Acrolein is an unstable toxic substance that can burn the nose and throat and is a severe pulmonary irritant. It is a flammable and poisonous substance prepared industrially by the oxidation of propene. Small amounts of acrolein are formed and enter the air when trees, tobacco, other plants, gasoline, and oil are burned.

- Acetaldehyde. Acetaldehyde, sometimes known as ethanal, is an organic chemical compound used as an intermediate in the production of acetic acid, certain esters, and a number of other chemicals. It is a flammable liquid with a fruity smell. Acetaldehyde is toxic when applied externally for prolonged periods, an irritant, and a probable carcinogen.

- Formaldehyde. Formaldehyde is an organic chemical compound containing a terminal carbonyl group. It is produced in the atmosphere by the action of sunlight and oxygen on atmospheric methane and other hydrocarbons; thus, it becomes part of smog. Additionally, formaldehyde is an intermediate in the oxidation (or combustion) of methane as well as other carbon compounds including automobile exhaust. Formaldehyde is a flammable substance that can be toxic, allergenic, and a carcinogen. It is naturally made in small amounts in human bodies and is found in small amounts in household sources, such as fiberglass, carpets, permanent press fabrics, paper products, and some household cleaners.

- Benzene. Benzene, or benzol, is an organic chemical compound and a known carcinogen. It is a colorless and highly flammable liquid with a sweet smell and a relatively high melting point. Benzene is an important industrial solvent and precursor in the production of drugs, plastics,

synthetic rubber, and dyes. Benzene is a natural constituent of crude oil, and may be synthesized from other compounds present in petroleum, and is found in gasoline, and cigarette smoke. Natural sources of benzene include emissions from volcanoes and forest fires.

- 1,3-Butadiene. 1,3-Butadiene is an important industrial chemical used in the production of synthetic rubber (about 75% of the manufactured 1,3-butadiene), which is then used primarily in the production of automobile tires. It is a colorless gas with a mild gasoline-like odor and small amounts are contained in gasoline and exhausted into the air after the combustion process. It is a carcinogen and highly irritative and flammable.

AIR QUALITY REGULATION

The federal and state governments have established ambient air quality standards for the protection of public health. The USEPA is the federal agency designated to administer air quality regulation, while the California Air Resources Board (ARB) is the state equivalent in the California Environmental Protection Agency. County-level Air Pollution Control Districts (APCDs) provide local management of air quality. The ARB has established air quality standards and is responsible for the control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. The ARB has established 15 air basins statewide.

The USEPA has set primary national ambient air quality standards (NAAQS) for ozone, CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, the State of California has established health-based ambient air quality standards for these and other pollutants, some of which are more stringent than the federal standards. Table 1 lists the current federal and state standards for regulated pollutants.

Goleta is located in the Santa Barbara County portion of the Air Basin. The SBCAPCD is the designated air quality control agency in the Air Basin. Santa Barbara County is classified as being in “attainment” or as “non-attainment.” Santa Barbara County is in non-attainment for the state eight-hour ozone standard and the state standard for PM_{10}. The County is unclassified for the state $PM_{2.5}$ standard and the federal PM_{10} standard. The County is in attainment for all other standards.

Non-attainment status within Santa Barbara County is a result of several factors, primarily the natural meteorological conditions that limit the dispersion and diffusion of pollutants (surface and subsidence inversions), the limited capacity of the local airshed to eliminate pollutants from the air, and the number, type, and density of emission sources within the air basin. The potential health effects of pollutants for which the County is in nonattainment are described above.

CURRENT AIR QUALITY

The SCCAB monitoring station located nearest to the Project site is the Goleta-Fairview station, located at 380 N. Fairview Avenue in Goleta. Table 2 indicates the number of days each of the standards has been exceeded at this station in each of the last three years for which data is available.

Table 1
Current Federal and State Ambient Air Quality Standards

Pollutant	Federal Standard	California Standard
Ozone	0.070 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.100 ppm (1-hr avg) 0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide	0.075 ppm (1-hr avg)	0.25 ppm (1-hr avg) 0.04 ppm (24-hr avg)
Lead	1.5 $\mu g/m^3$ (calendar quarter)	0.15 $\mu g/m^3$ (3-month avg)
Particulate Matter (PM_{10})	150 $\mu g/m^3$ (24-hr avg)	20 $\mu g/m^3$ (annual avg) 50 $\mu g/m^3$ (24-hr avg)
Particulate Matter ($PM_{2.5}$)	12 $\mu g/m^3$ (annual avg) 35 $\mu g/m^3$ (24-hr avg)	12 $\mu g/m^3$ (annual avg)

ppm= parts per million
µg/m3 = micrograms per cubic meter
Sources: California Air Resources Board, October 1, 2015. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf; EPA Particulate Matter (PM) Regulatory Actions, October 26, 2015. http://www.epa.gov/pm/actions.html.

Table 2
Ambient Air Quality Data

Pollutant	2012	2013	2014
Ozone, ppm - Worst Hour	0.065	0.075	0.096
Number of days of State exceedances (>0.09 ppm)	0	0	1
Ozone, ppm – Worst 8 Hours	0.056	0.065	0.081
Number of days of State exceedances (>0.07 ppm)	0	0	3
Number of days of Federal exceedances (>0.075 ppm)	0	0	2
Carbon Monoxide, ppm - Worst 8 Hours	0.65	*	*
Number of days of State/Federal exceedances (>9.0 ppm)	0	0	0
Nitrogen Dioxide, ppm - Worst Hour	0.041	0.013	0.038
Number of days of State exceedances (>0.18 ppm)	0	0	0
Particulate Matter <10 microns, $\mu g/m^3$ Worst 24 Hours	48.0	44.0	45.3
Number of samples of State exceedances (>50 $\mu g/m^3$)	0	0	0
Number of samples of Federal exceedances (>150 $\mu g/m^3$)	0	0	0
Particulate Matter <2.5 microns, $\mu g/m^3$ Worst 24 Hours	29.0	20.5	24.3
Number of days Federal exceedances	*	*	0

** There was insufficient (or no) data available to determine the value.*
Source: ARB Air Quality Data Statistics, Goleta-Fairview Station. Top four Summary. Accessed November 2015. Retrieved from: http://www.arb.ca.gov/adam/topfour/topfour1.php

ANALYSIS METHODOLOGY

Mobile source air toxics emissions associated with vehicle traffic on U.S. 101 and the UPRR were estimated based on the methodology developed by the UC Davis-Caltrans Air Quality Project *Estimating Mobile Source Air Toxics Emissions: A Step-By-Step Project Analysis Methodology* (December 2006). This spreadsheet application was designed to generate the total amount of the above six pollutants of concern based on EMFAC2014 total organic gases (TOG) emission factors, particulate emission factors from EMFAC2014, and speciation from USEPA Motor Vehicle Emission Simulator (MOVES2014a). These emission factors are then multiplied against traffic volumes for the segments of concern to obtain total emissions from U.S. 101, which for this study, were based on grams per mile. Emissions from the UPRR are estimated based on freight train volumes from the Westar Mixed-Use Village Project Final EIR (located approximately one mile west of the Project site) (October, 2011) and passenger train volumes from the Amtrak Surfliner schedule (accessed November 2015), emission factors from the Southern California International Gateway Project Final EIR (May 2013; Appendix C1), and speciation factors from the Eastern Research Group, *Documentation for Locomotive Component of the National Emissions Inventory Methodology* (May 2011). Spreadsheet outputs adapted from the UC Davis-Caltrans MSAT model and composite emission rates, as well as estimated emissions from the UPRR and nearby businesses that are known to emit hazardous air pollutants are contained in the Appendix to this report.

For highway emissions, emission factors were reviewed for 60 and 65 miles per hour, and 65 miles per hour was determined to be the worst reasonable case speed (i.e., highest emission levels); therefore emissions were based on an average speed of 65 miles per hour as a conservative approach. Traffic volumes for U.S. 101 were obtained from Caltrans *2014 Annual Average Daily Traffic Volumes*. According to the Caltrans traffic data (2014) for U.S. 101, the Annual Average Daily Traffic (AADT) volume at South Los Carneros Road (immediately east of the Project site) is 65,800 vehicles. Truck traffic (3 axles or greater) is estimated to comprise 9% of the AADT based on Caltrans *2014 Annual Average Daily Truck Traffic*. The estimate of current truck travel is based on verified counts made by Caltrans in 2014 at other nearby post miles. The nearest verified counts of truck travel was made in 2014 at the junction of State Route 225, approximately seven miles east of the Project site.

Up to 12 freight trains and up to nine passenger trains would pass the Project site along the UPRR corridor per day. UPRR locomotive emissions were based on per-train emission factors from the Eastern Research Group's *Documentation for Locomotive Component of the National Emissions Inventory Methodology* (May 2011).

In addition, nearby businesses may emit additional hazardous air pollutants. These emissions are not expected to individually cause a risk; however, these emissions could result in a cumulative risk to proposed on-site residential units when considered in combination with the TACs associated with the freeway and railroad operations. SBCAPCD was contacted for a list of permitted businesses within 2,000 feet of the Project site boundary. The available emissions and location information – excluding businesses for which emissions data was not collected or was otherwise unavailable from SBCAPCD – were included in the local emissions estimate.

The AMS/EPA air dispersion model, AERMOD was utilized to calculate the concentrations of source emissions at receptor locations. Specific meteorology and terrain for the site was input to the model using the nearest available meteorological data set at the Santa Barbara Airport. U.S. 101 and UPRR vary in elevation between approximately 35 feet and 45 feet msl along the length of the approximately 1-mile segment. The nearest receptors on the Project site are located at an elevation of approximately 38

feet. These differences in topography are considered by the dispersion model. The freeway and rail line were each modeled as a series of volume sources in AERMOD. AERMOD provides X/Q (CHI/Q = chi/q = χ/q) values, which is the concentration estimated by the air quality model based on an emission rate of one gram per second.

For risk assessments conducted under the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, Connelly, Statutes of 1987; Health and Safety Code Section 44300 et seq.) a weighting factor that reflects early life exposure is applied to all carcinogens regardless of purported mechanism of action. However, for this assessment, the HRA relied upon USEPA guidance, *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens,* relating to the use of early life exposure adjustment factors (2005) whereby adjustment factors are only considered when carcinogens act "through the mutagenic mode of action." The USEPA has identified 19 compounds that elicit a mutagenic mode of action for carcinogenesis. None of the gaseous compounds considered in the HRA elicit a mutagenic mode of action; therefore, early life exposure adjustments were not considered in this analysis. For diesel particulates, polycyclic aromatic hydrocarbons (PAHs) and their derivatives, which are known to exhibit a mutagenic mode of action, comprise less than 1% of the exhaust particulate mass. To date, the USEPA reports that whole diesel engine exhaust has not been shown to elicit a mutagenic mode of action. Therefore, HARP On-Ramp was used to import air dispersion data from AERMOD into the HARP (ver. 1.4f) program for risk analysis because the risk calculation the model performs does not include the weighting factor that reflects early life exposure adjustments. HARP 2 incorporates the early life exposure adjustments presented in OEHHA's 2015 *Air Toxics Hotspots Program Guidance Manual for Preparation of Health Risk Assessments* and, therefore, was not appropriate for calculating risk for this HRA.

HARP uses the X/Q values to estimate actual concentration by multiplying this value against the emission rate in grams per second. The carcinogenic health risk is then calculated by the HARP model based on the emission concentration at each sensitive or grid receptor using the toxicity data contained in the HARP database. The chronic health risk value is calculated by the HARP model using the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) method of dividing the annual average concentration by the chronic inhalation reference exposure level (REL) (HARP, May 2012).

Three exposure pathways are considered for health effects: ingestion, dermal contact, and inhalation. The first two generally require direct contact with the contaminated medium (usually soil), while the latter includes the inhalation of vapors and respirable dust (usually in the form of particulate matter less than 10 microns [PM_{10}]). Inhalation is the only available pathway for the exhaust vapors that contain acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. Diesel PM is a respirable dust that can potentially be both ingested (oral) or enter the body through contact with contaminated soil. Oral or non-inhalation exposure pathways include the ingestion of soil, fisher caught fish, drinking water from surface waters, mother's milk, homegrown produce, beef, pork, chicken, eggs and cow's milk. With respect to diesel PM, the oral pathway is available only through ingestion of contaminated soil, similar to the dermal contact. However, OEHHA does not list an oral slope toxicity for diesel PM and nor does the USEPA Integrated Risk Information System (IRIS) as toxicity studies have focused on the inhalation hazard. Therefore, only the inhalation pathway is considered in this risk assessment.

Carcinogenic health risk was based on a stay-at-home adult resident present at proposed residential units for the recommended default time periods of 9 and 30 years. These correspond to the central tendency for the average time spent in a single residence (9 year, 50th percentile) and the high-end

estimate for residency time (30 year, 95th percentile). Although it is possible to evaluate cancer risks over a lifetime, or 70-year exposure duration, 30 years is the exposure duration scenario recommended by the SBCAPCD in the *Modeling Guidelines for Health Risk Assessments* (August 2015). The 9-year residency is also used by the OEHHA to calculate risk for child receptors. Chronic, non-cancer risks were calculated using the "Derived (OEHHA)" risk calculation method.

The USEPA considers for risk management those pollutants that could cause carcinogenic risks between one in 10,000 (1.0 x 10-4 or 1.0E-04) and one in one million (1.0 x 10-6 or 1.0E-06). Passage of Proposition 65 (encoded in California Health and Safety Code Section 25249.6) in 1986 prohibits a person in the course of doing business from knowingly and intentionally exposing any individual to a chemical that has been listed as known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning. For a chemical that is listed as a carcinogen, the "no significant risk" level under Proposition 65 is defined as the level which is calculated to result in not more than one excess case of cancer in 100,000 individuals (1.0E-05). The SBCAPCD recommends the use of this risk level (also reportable as 10 in one million) as the significance threshold for toxic air contaminants (SBCAPCD, April 2015). In addition, the SBCAPCD recommends that the non-carcinogenic hazards of toxic air contaminants at ground level should not exceed a hazard index (or hazard quotient) of 1.0 for either chronic or acute effects (SBCAPCD, April 2015).

To provide a perspective on risk, it is noted that the American Cancer Society (2007) reports that in the U.S., men have a one in two chance (0.5 probability) and women about one in three chance (0.3) probability of developing cancer during a lifetime, with one in four deaths (0.23) in the U.S. attributed to cancer. Given this background carcinogenic risk level in the general population, application of a 10-5 excess risk limit means that the contribution from a toxic hazard should not cause the resultant cancer risk for the exposed population to exceed 0.50001 for men and 0.33001 for women.

RESULTS

Health risks for four sensitive receptor locations distributed throughout the Project site were modeled. Each of these receptors represents a proposed location of residential structures on site and includes first floor, second floor, andthird floor elevations (where present). The Point of Maximum Impact (PMI), which is typically at the border of the source (freeway fence), was not calculated since it is not relevant to the analysis given the specific location of the proposed land uses. A receptor grid was used to evaluate whether or not sensitive receptor locations reflected the pattern of exposure.

Significant carcinogenic health risk was determined for residency scenarios (9-year adult and child, and 30-year) at all four receptor locations, as indicated in Table 3. Diesel exhaust particulates are the major source of this carcinogenic health risk as they are responsible for about 98% of the calculated risk at the maximum exposed individual receptor (MEIR). Refer to the appendix for more detailed accounting of the risk at each site per pollutant of concern.

As shown in Table 3, the chronic health risk for the closest on-site habitable units (MEIR receptors) associated with the freeway vehicle exhaust emissions are not significant, as chronic inhalation health hazards are below the SBCAPCD threshold hazard index of 1.0. The chemicals most responsible for the chronic inhalation risk are 1,3 butadiene and formaldehyde. Refer to the appendix for more detailed accounting of the risk per pollutant of concern.

Table 3
Potential Health Risks at the MEIR Receptors

	Excess Cancer Risk	Exceed Criterion? (10^{-5})	OEHHA Chronic Hazard Quotient[1]	Exceed Criterion? (>1)
Residential 1				
9-year Resident				
Adult	1.54E-05	YES	6.41E-02	NO
Child	2.27E-05	YES	--	--
30-year Adult	5.12E-05	YES	6.41E-02	NO
Residential 2				
9-year Resident				
Adult	1.47E-05	YES	6.10E-02	NO
Child	2.17E-05	YES	--	--
30-year Adult	4.90E-05	YES	6.10E-02	NO
Residential 3				
9-year Resident				
Adult	1.77E-05	YES	7.06E-02	NO
Child	2.61E-05	YES	--	--
30-year Adult	5.89E-05	YES	7.06E-02	NO
Residential 4				
9-year Resident				
Adult	1.25E-05	YES	5.00E-02	NO
Child	1.85E-05	YES	--	--
30-year Adult	4.17E-05	YES	5.00E-02	NO

Refer to appendix for complete model results.

1: Note that chronic risk does not change with increase in years as calculation terms cancel out.

To determine if an acute health risk might be present, the one hour maximum concentration of the toxic air contaminants of concern were compared to the appropriate reference exposure level (REL), and the acute health risk was also determined to not be significant.

CONCLUSIONS and RECOMMENDATIONS

The proposed use of the site for residential development would expose on-site residents to potentially significant carcinogenic health risks associated with vehicle emissions, specifically diesel exhaust particulates, based upon SBCAPCD health risk criteria. The calculated risk is based on exposure to outdoor air 24 hours per day, but the USEPA *Exposure Factors Handbook* indicates that the recommended daily activity pattern includes 16.6 hours per day spent inside and 2.3 hours per day outside (2011; Table 16-16 Time Spent (minutes/day) in Various Rooms at Home and in All Rooms Combined, Doers Only and Table 16-22 Mean Time Spent (minutes/day) Outside and Inside, Adults 18 Years and Older, Doers Only)[2]. The remaining daily time is spent off-site. As a conservative simplifying assumption, this analysis presumes that residents would have the windows open sufficiently to equalize the concentration of pollutants between the indoor and outdoor environment. This simplifying assumption results in a calculated risk that is likely to be nearly an order of magnitude higher than actual indoor risk.

[2] "Doers Only" includes data for individuals that spent >0 time in motor vehicles and had 30 or more records are included in the USEPA *Exposure Factors Handbook* analysis.

It should be noted that diesel particulates will settle out to some unknown extent on window screens and other surfaces as outdoor air enters into the indoor air environment, though at least a portion of this settled material would become re-suspended during cleaning and other activities. Therefore, it is likely that this analysis over-estimates the carcinogenic health risk. Furthermore, current regulatory action by CARB is intended to reduce the amount of diesel exhaust particulates associated with on-road diesel trucks in the future (note that the analysis was based on Year 2018 composite emission factors). Conversely, vehicle emissions are based on current traffic estimates; truck traffic growth that may occur in the future along this portion of U.S. 101 may result in increased emissions on a per mile basis, but such increases in truck traffic will be offset to some degree by changes in both the truck and non-diesel vehicle fleets as newer, less polluting vehicles become the majority portion of the fleet populations. Because the carcinogenic health risk for all scenarios is greater than 10 in one million, the potential effect of exposure to diesel particulate air pollutants at this site under current traffic conditions is considered potentially significant.

Based on the above analysis and the fact that the site is at the margin of the significance criteria for carcinogenic risk for the 9 and 30 year scenarios, the potential carcinogenic health hazard can be mitigated to a less than significant level (below 10 in one million) for these scenarios by reducing the amount of diesel exhaust particulates that the residents are exposed to in the indoor environment. Therefore, we recommend the following actions be incorporated into the Project:

- Forced air ventilation with filter screens on outside air intake ducts shall be provided for all residential units proposed on the site. The filter screens shall have a MERV 13 rating, capable of removing at least 90% of the particulate matter including fine particulate matter ($PM_{2.5}$).
- For individual residential units with separate HVAC systems, a brochure notifying the future residents of the need for maintaining the filter screens shall be prepared and provided at the time of ownership exchange. In addition, a notice of the diesel particulates risk hazard and the need for screen maintenance shall be placed in the property title or lease.
- Windows and doors shall be fully weatherproofed with caulking and weather-stripping that is rated to last at least 20 years.

These mitigation actions would provide for the removal of particulates prior to entering into the indoor environment, thereby reducing the overall exposure of individual residents. The above mitigation actions would apply to all residential receptors on the Project site. Table 4 below indicates the calculated carcinogenic risk associated with this mitigation measure for proposed residential units on the Project site. The estimated reduction in cancer risk assumes removal of the DPM by the whole house filter (these filters have efficiency rates exceeding 90%), but continued exposure to outside air for a period of 2.3 hours daily (USEPA *Exposure Factors Handbook*). This would provide a clean interior environment and reduce the future residents' exposure to toxic air contaminants associated with U.S. 101 and the UPRR to below the ten in one million level for the average (50^{th} percentile) residency of 9 years for an adult and child and the 30-year scenario (95^{th} percentile).

Table 4
Mitigated Potential Carcinogenic Health Risks Within the Project Site

	Mitigated Excess Cancer Risk	Exceed Criterion? (10^{-5})
Residential 1		
9-year Resident		
Adult	2.56E-06	NO
Child	3.77E-06	NO
30-year Adult	8.51E-06	NO
Residential 2		
9-year Resident		
Adult	2.44E-06	NO
Child	3.61E-06	NO
30-year Adult	8.15E-06	NO
Residential 3		
9-year Resident		
Adult	2.94E-06	NO
Child	4.34E-06	NO
30-year Adult	9.79E-06	NO
Residential 4		
9-year Resident		
Adult	2.08E-06	NO
Child	3.08E-06	NO
30-year Adult	6.93E-06	NO

Refer to appendix for complete model results.

REFERENCES and BIBLIOGRAPHY

American Cancer Society (2007). *Cancer Facts and Figures 2007*. http://www.cancer.org/downloads/STT/CAFF2007PWSecured.pdf

Amtrak California. Southern California Passenger Rail System Map and Timetables. Accessed November 2015.

California Environmental Protection Agency [EPA], Air Resources Board [ARB] (April 22, 1998). *Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant" Part A, Exposure Assessment*. As approved by the Scientific Review Panel.

California EPA, ARB (October 2000). *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*.

California EPA, ARB (April 2005). *Air Quality and Land Use Handbook: A Community Health Perspective*.

California Air Resources Board. May 2012. *Hotspot Analysis Reporting Program*, Version 1.4f.

California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (2015). *2015 Hotspots Guidance Manual.*

Eastern Research Group. Documentation for Locomotive Component of the National Emissions Inventory Methodology. May 2011.

Goleta, City of. *Westar Mixed-Use Village Project Final EIR*. October 2011.

Port of Los Angeles. *Southern California International Gateway Project Final EIR*. May, 2013.

Santa Barbara County Air Pollution Control District (SBCAPCD). *Scope and Content of Air Quality Sections in Environmental Documents*. Accessed at http://www.ourair.org/wp-content/uploads/ScopeContentApril2015.pdf. Updated April 2015.

SBCAPCD (August 2015). Modeling Guidelines for Health Risk Assessments. Accessed at http://www.ourair.org/wp-content/uploads/apcd-15i.pdf

United States Environmental Protection Agency [USEPA], 2005. *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*. EPA/630/R-003F.

USEPA (2011). *Exposure Factors Handbook 2011 Edition (Final).* U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09/052F, 2011.

USEPA (2014). Motor Vehicle Emission Simulator (MOVES2014a). Accessed December 2015.

University of California Davis-Caltrans Air Quality Project (December 2006). *Estimating Mobile Source Air Toxics Emissions: A Step-By-Step Project Analysis Methodology*.

Appendix

Emission Rates for U.S. Highway 101, Union Pacific Railroad, and SBCAPCD Permitted Sources

HARP Model Risk Analysis Results

Derivation of Emission Rates for Highway Sources

Freeway width, one way 50.0 feet
Each direction segment at 500.0 feet long

	Emissions					
	Diesel PM	Benzene	1,3-Butadiene	Acetaldehyde	Acrolein	Formaldehyde
grams/mi/day **	53.3	77.21	5.26	22.64	1.34	37.70
lbs/hour/segment	0.0005	0.0007	0.00005	0.0002	0.00001	0.00033
lbs/year/segment ***	4.1	5.88	0.40	1.73	0.10	2.87

** Total emissions per mile calculated using the above speciation factors.
*** Based on 365 day/year

Assessor Parcel Number (APN)	Address	FID	Facility Name	Permitted Equipment	Emissions
73050021	6325 LINDMAR DR. GOLETA CA, 93117-3131	3640	Trisep Corp	Solvent Operations	The facility uses a variety of solvents that are marked as confidential trade secrets. The facility uses thermal oxidizers and wet scrubbers to control emissions by 95+%. The entire facility is limited to 13.28 tpy of Reactive Organic Compounds, with a portion of that corresponding to toxics. Specific toxic emissions are not quantified on an annual basis.
73050030	6338 LINDMAR DR. GOLETA CA, 93117-3112	1152	Bardex Corporation	Coating Operations	Minimal. Not quantified on an annual basis.
73050033	27 S LA PATERA LN. GOLETA CA, 93117-3214	11130	Direct Relief International	Emergency Generator	Minimal. Around 0.01 tpy diesel PM
73050027	6380 HOLLISTER AVE. GOLETA CA, 93117-3114	1971	Raytheon-Hollister (Electronic Warfare)	Solvent + Emergency Generator	Generator is minimal. Around 0.01 tpy diesel PM. Solvent emissions not quantified.
73330009	175 CREMONA DR. GOLETA CA, 93117-3084	4583	Karl Storz Imaging, Incorporated	Solvent - Permit Exempt	Minimal. Not quantified on an annual basis.
77160054	6465 CALLE REAL GOLETA	1246	CA Hwy Patrol	Gasoline Storage	Minimal. Not quantified on an annual basis.
73050041	75 ROBIN HILL RD. GOLETA CA, 93117-3108	10867	Innovative Micro Technology Inc	Solvent + Emergency Generator + Boilers	Generator is minimal. Around 0.01 tpy diesel PM. Boiler is minimal. Not quantified on an annual basis.
73050013	112 ROBIN HILL RD. GOLETA CA, 93117-3107	10105	Brunker Nano, Inc	Emergency Generator	Minimal. Around 0.01 tpy diesel PM

Derivation of Emission Rates for RR Source

Railway width 50 feet
Each segment at 500 feet long

	Emissions					
	Diesel PM	Benzene	1,3-Butadiene	Acetaldehyde	Acrolein	Formaldehyde
grams/mi/day **	497.3	0.03	0.03	0.22	0.04	0.47
lbs/hour/segment	0.0043	0.0000002	0.0000003	0.000002	0.0000004	0.000004
lbs/year/segment ***	37.9	0.002	0.002	0.02	0.003	0.04

** Total emissions per mile calculated using the above speciation factors.
*** Based on 365 day/year

This file: c:\HARP\projects\demo\Rep_Chr_Res_DerOEH_AllRec_AllSrc_AllCh_ByRec_ByChem_Site_UTM.txt

Created by HARP Version 1.4f Build 23.11.01
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 12/29/2015 3:06:10 PM

EXCEPTION REPORT
(there have been no changes or exceptions)

INPUT FILES:
Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.SRC
Averaging period adjustment factors file: not applicable
Emission rates file: 12.29.15.EMS
Site parameters file: c:\HARP\projects\demo\project.sit

Screening mode is OFF

Exposure duration: resident
Analysis method: Derived (OEHHA) Method
Health effect: Chronic HI
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

"PIGS," CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

SOIL INGESTION

*** Pathway disabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM CAS ABBREVIATION POLLUTANT NAME BACKGROUND (ug/m^3)

1 106990 "1,3-Butadiene" "1,3-Butadiene" 0.00E+00
2 75070 Acetaldehyde Acetaldehyde 0.00E+00
3 107028 Acrolein Acrolein 0.00E+00
4 71432 Benzene Benzene 0.00E+00
5 9901 DieselExhPM Diesel engine "exhaust," particulate matter (Diesel PM) 0.00E+00

6 50000 Formaldehyde Formaldehyde 0.00E+00

CHEMICAL HEALTHVALUES
CHEM CAS ABBREVIATION CancerPF(Inh) CancerPF(Oral) ChronicREL(Inh) ChronicREL(Oral) AcuteREL

(mg/kg-d)^-1 (mg/kg-d)^-1 ug/m^3 mg/kg-d ug/m^3

1 106990 "1,3-Butadiene" 6.00E-01 * 2.00E+01 * *
2 75070 Acetaldehyde 1.00E-02 * 1.40E+02 * 4.70E+02
3 107028 Acrolein * * 3.50E-01 * 2.50E+00
4 71432 Benzene 1.00E-01 * 6.00E+01 * 1.30E+03
5 9901 DieselExhPM 1.10E+00 * 5.00E+00 * *
6 50000 Formaldehyde 2.10E-02 * 9.00E+00 * 5.50E+01

EMISSIONS DATA SOURCE: Emission rates loaded from file:
C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS
CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04

50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04

50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04

50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03

50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=33 NAME=3003 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+000.00E+00
75070 Acetaldehyde 1 0 0.00E+000.00E+00
107028 Acrolein 1 0 0.00E+000.00E+00
71432 Benzene 1 0 0.00E+000.00E+00
9901 DieselExhPM 1 0 2.00E+012.28E-03
50000 Formaldehyde 1 0 0.00E+000.00E+00

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=34 NAME=3004 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+000.00E+00
75070 Acetaldehyde 1 0 0.00E+000.00E+00
107028 Acrolein 1 0 0.00E+000.00E+00
71432 Benzene 1 0 0.00E+000.00E+00
9901 DieselExhPM 1 0 2.00E+012.28E-03
50000 Formaldehyde 1 0 0.00E+000.00E+00

CHRONIC HI REPORT

DERIVED CHRONIC "HI," RECEPTOR 201
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.83E-04 0.00E+00 0.00E+000.00E+002.83E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.75E-04 0.00E+000.00E+001.75E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.08E-03 0.00E+000.00E+004.08E-03
4 0.00E+001.38E-03 0.00E+001.38E-03 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+001.38E-03 1.38E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+005.53E-02 0.00E+000.00E+005.53E-02
6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.52E-03 0.00E+000.00E+004.52E-03
SUM 0.00E+001.38E-03 0.00E+001.38E-03 0.00E+000.00E+000.00E+000.00E+000.00E+002.83E-04 6.41E-02 0.00E+001.38E-03 6.41E-02 238131 3814258

DERIVED CHRONIC "HI," RECEPTOR 202
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.83E-04 0.00E+00 0.00E+000.00E+002.83E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.75E-04 0.00E+000.00E+001.75E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.08E-03 0.00E+000.00E+004.08E-03
4 0.00E+001.38E-03 0.00E+001.38E-03 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+001.38E-03 1.38E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+005.53E-02 0.00E+000.00E+005.53E-02

6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.52E-03 0.00E+000.00E+004.52E-03
SUM 0.00E+001.38E-03 0.00E+001.38E-03 0.00E+000.00E+000.00E+000.00E+000.00E+002.83E-04 6.41E-02 0.00E+001.38E-03 6.41E-02 238131 3814258

DERIVED CHRONIC "HI," RECEPTOR 203
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.83E-04 0.00E+00 0.00E+000.00E+002.83E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.75E-04 0.00E+000.00E+001.75E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.08E-03 0.00E+000.00E+004.08E-03
4 0.00E+001.38E-03 0.00E+001.38E-03 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+001.38E-03 1.38E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+005.53E-02 0.00E+000.00E+005.53E-02
6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.52E-03 0.00E+000.00E+004.52E-03
SUM 0.00E+001.38E-03 0.00E+001.38E-03 0.00E+000.00E+000.00E+000.00E+000.00E+002.83E-04 6.41E-02 0.00E+001.38E-03 6.41E-02 238131 3814258

DERIVED CHRONIC "HI," RECEPTOR 204
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.57E-04 0.00E+00 0.00E+000.00E+002.57E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.59E-04 0.00E+000.00E+001.59E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+003.70E-03 0.00E+000.00E+003.70E-03
4 0.00E+001.26E-03 0.00E+001.26E-03 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+001.26E-03 1.26E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+005.30E-02 0.00E+000.00E+005.30E-02
6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.11E-03 0.00E+000.00E+004.11E-03
SUM 0.00E+001.26E-03 0.00E+001.26E-03 0.00E+000.00E+000.00E+000.00E+000.00E+002.57E-04 6.10E-02 0.00E+001.26E-03 6.10E-02 237962 3814240

DERIVED CHRONIC "HI," RECEPTOR 205
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.57E-04 0.00E+00 0.00E+000.00E+002.57E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.59E-04 0.00E+000.00E+001.59E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+003.70E-03 0.00E+000.00E+003.70E-03
4 0.00E+001.26E-03 0.00E+001.26E-03 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+001.26E-03 1.26E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+005.30E-02 0.00E+000.00E+005.30E-02

6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.11E-03
0.00E+000.00E+004.11E-03
SUM 0.00E+001.26E-03 0.00E+001.26E-03 0.00E+000.00E+000.00E+000.00E+000.00E+002.57E-04 6.10E-02
0.00E+001.26E-03 6.10E-02 237962 3814240

DERIVED CHRONIC "HI," RECEPTOR 206
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.88E-04 0.00E+00
0.00E+000.00E+001.88E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.17E-04
0.00E+000.00E+001.17E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.73E-03
0.00E+000.00E+002.73E-03
4 0.00E+009.16E-04 0.00E+009.16E-04 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+009.16E-04 9.16E-04
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+006.47E-02
0.00E+000.00E+006.47E-02
6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+003.01E-03
0.00E+000.00E+003.01E-03
SUM 0.00E+009.16E-04 0.00E+009.16E-04 0.00E+000.00E+000.00E+000.00E+001.88E-04 7.06E-02
0.00E+009.16E-04 7.06E-02 238098 3814165

DERIVED CHRONIC "HI," RECEPTOR 207
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.88E-04 0.00E+00
0.00E+000.00E+001.88E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.17E-04
0.00E+000.00E+001.17E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.73E-03
0.00E+000.00E+002.73E-03
4 0.00E+009.16E-04 0.00E+009.16E-04 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+009.16E-04 9.16E-04
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+006.47E-02
0.00E+000.00E+006.47E-02
6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+003.01E-03
0.00E+000.00E+003.01E-03
SUM 0.00E+009.16E-04 0.00E+009.16E-04 0.00E+000.00E+000.00E+000.00E+001.88E-04 7.06E-02
0.00E+009.16E-04 7.06E-02 238098 3814165

DERIVED CHRONIC "HI," RECEPTOR 208
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.88E-04 0.00E+00
0.00E+000.00E+001.88E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.17E-04
0.00E+000.00E+001.17E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.73E-03
0.00E+000.00E+002.73E-03
4 0.00E+009.16E-04 0.00E+009.16E-04 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+009.16E-04 9.16E-04
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+006.47E-02
0.00E+000.00E+006.47E-02

6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+003.01E-03 0.00E+000.00E+003.01E-03
SUM 0.00E+009.16E-04 0.00E+009.16E-04 0.00E+000.00E+000.00E+000.00E+000.00E+001.88E-04 7.06E-02 0.00E+009.16E-04 7.06E-02 238098 3814165

DERIVED CHRONIC "HI," RECEPTOR 209
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.33E-04 0.00E+00 0.00E+000.00E+001.33E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+008.26E-05 0.00E+000.00E+008.26E-05
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.94E-03 0.00E+000.00E+001.94E-03
4 0.00E+006.49E-04 0.00E+006.49E-04 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+006.49E-04 6.49E-04
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.59E-02 0.00E+000.00E+004.59E-02
6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.13E-03 0.00E+000.00E+002.13E-03
SUM 0.00E+006.49E-04 0.00E+006.49E-04 0.00E+000.00E+000.00E+000.00E+000.00E+001.33E-04 5.00E-02 0.00E+006.49E-04 5.00E-02 237957 3814058

DERIVED CHRONIC "HI," RECEPTOR 210
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.33E-04 0.00E+00 0.00E+000.00E+001.33E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+008.26E-05 0.00E+000.00E+008.26E-05
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.94E-03 0.00E+000.00E+001.94E-03
4 0.00E+006.49E-04 0.00E+006.49E-04 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+006.49E-04 6.49E-04
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.59E-02 0.00E+000.00E+004.59E-02
6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.13E-03 0.00E+000.00E+002.13E-03
SUM 0.00E+006.49E-04 0.00E+006.49E-04 0.00E+000.00E+000.00E+000.00E+000.00E+001.33E-04 5.00E-02 0.00E+006.49E-04 5.00E-02 237957 3814058

DERIVED CHRONIC "HI," RECEPTOR 211
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.33E-04 0.00E+00 0.00E+000.00E+001.33E-04
2 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+008.26E-05 0.00E+000.00E+008.26E-05
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+001.94E-03 0.00E+000.00E+001.94E-03
4 0.00E+006.49E-04 0.00E+006.49E-04 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+006.49E-04 6.49E-04
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+004.59E-02 0.00E+000.00E+004.59E-02

6 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+002.13E-03 0.00E+000.00E+002.13E-03
SUM 0.00E+006.49E-04 0.00E+006.49E-04 0.00E+000.00E+000.00E+000.00E+000.00E+001.33E-04 5.00E-02 0.00E+006.49E-04 5.00E-02 237957 3814058

This file: c:\HARP\projects\demo\Rep_Acu_AllRec_AllSrc_AllCh_ByRec_ByChem_UTM.txt

Created by HARP Version 1.4f Build 23.11.01
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 12/29/2015 3:06:06 PM

EXCEPTION REPORT
(there have been no changes or exceptions)

INPUT FILES:
Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.SRC
Averaging period adjustment factors file: not applicable
Emission rates file: 12.29.15.EMS
Site parameters file: c:\HARP\projects\demo\project.sit

Screening mode is OFF

Analysis method: Point Estimate
Health effect: Acute HI Simple (Concurrent Max.)
Receptor(s): All
Sources(s): All
Chemicals(s): All

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"	0.00E+00
2	75070	Acetaldehyde	Acetaldehyde	0.00E+00
3	107028	Acrolein	Acrolein	0.00E+00
4	71432	Benzene	Benzene	0.00E+00
5	9901	DieselExhPM	Diesel engine "exhaust," particulate matter (Diesel PM)	0.00E+00
6	50000	Formaldehyde	Formaldehyde	0.00E+00

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh) (mg/kg-d)^-1	CancerPF(Oral) (mg/kg-d)^-1	ChronicREL(Inh) ug/m^3	ChronicREL(Oral) mg/kg-d	AcuteREL ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	*	*	3.50E-01 *	2.50E+00	
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded from file:

C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS
CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG	(ug/m^3) AVRG	(lbs/yr) MAX	(lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05	
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04	
107028	Acrolein	1	0	1.00E-01	1.00E-05	
71432	Benzene	1	0	5.88E+00	7.00E-04	
9901	DieselExhPM	1	0	4.10E+00	5.00E-04	
50000	Formaldehyde	1	0	2.87E+00	3.00E-04	

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG	(ug/m^3) AVRG	(lbs/yr) MAX	(lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05	
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04	
107028	Acrolein	1	0	1.00E-01	1.00E-05	
71432	Benzene	1	0	5.88E+00	7.00E-04	
9901	DieselExhPM	1	0	4.10E+00	5.00E-04	
50000	Formaldehyde	1	0	2.87E+00	3.00E-04	

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG	(ug/m^3) AVRG	(lbs/yr) MAX	(lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05	
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04	
107028	Acrolein	1	0	1.00E-01	1.00E-05	
71432	Benzene	1	0	5.88E+00	7.00E-04	
9901	DieselExhPM	1	0	4.10E+00	5.00E-04	
50000	Formaldehyde	1	0	2.87E+00	3.00E-04	

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG	(ug/m^3) AVRG	(lbs/yr) MAX	(lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05	
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04	
107028	Acrolein	1	0	1.00E-01	1.00E-05	
71432	Benzene	1	0	5.88E+00	7.00E-04	
9901	DieselExhPM	1	0	4.10E+00	5.00E-04	
50000	Formaldehyde	1	0	2.87E+00	3.00E-04	

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04

9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04

9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+002.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+007.00E-04
9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+002.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+007.00E-04
9901 DieselExhPM 1 0 4.10E+005.00E-04
50000 Formaldehyde 1 0 2.87E+003.00E-04

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+014.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+014.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07

9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=33 NAME=3003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=34 NAME=3004 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

ACUTE HI REPORT

ACUTE "HI," RECEPTOR 201
CHEM CV CNS BONE DEVEL ENDO EYE GILV IMMUN KIDN REPRO RESP SKIN BLOOD MAX UTME UTMN
1 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
2 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.09E-03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.09E-03 0.00E+00 0.00E+00 1.09E-03
3 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.04E-02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.04E-02 0.00E+00 0.00E+00 1.04E-02
4 0.00E+00 0.00E+00 0.00E+00 1.37E-03 0.00E+00 0.00E+00 0.00E+00 1.37E-03 0.00E+00 1.37E-03 0.00E+00 0.00E+00 1.37E-03 1.37E-03
5 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
6 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.40E-02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.40E-02
SUM 0.00E+00 0.00E+00 0.00E+00 1.37E-03 0.00E+00 2.55E-02 0.00E+00 1.37E-03 0.00E+00 1.37E-03 1.15E-02 0.00E+00 1.37E-03 2.55E-02 238131 3814258

ACUTE "HI," RECEPTOR 202

CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+001.09E-03 0.00E+000.00E+000.00E+000.00E+001.09E-03
0.00E+000.00E+001.09E-03
3 0.00E+000.00E+000.00E+000.00E+001.04E-02 0.00E+000.00E+000.00E+000.00E+001.04E-02
0.00E+000.00E+001.04E-02
4 0.00E+000.00E+000.00E+001.37E-03 0.00E+000.00E+000.00E+001.37E-03 0.00E+001.37E-03 0.00E+00
0.00E+001.37E-03 1.37E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+001.40E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.40E-02
SUM 0.00E+000.00E+000.00E+001.37E-03 0.00E+002.55E-02 0.00E+001.37E-03 0.00E+001.37E-03 1.15E-02
0.00E+001.37E-03 2.55E-02 238131 3814258

ACUTE "HI," RECEPTOR 203
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+001.09E-03 0.00E+000.00E+000.00E+000.00E+001.09E-03
0.00E+000.00E+001.09E-03
3 0.00E+000.00E+000.00E+000.00E+001.04E-02 0.00E+000.00E+000.00E+000.00E+001.04E-02
0.00E+000.00E+001.04E-02
4 0.00E+000.00E+000.00E+001.37E-03 0.00E+000.00E+000.00E+001.37E-03 0.00E+001.37E-03 0.00E+00
0.00E+001.37E-03 1.37E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+001.40E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.40E-02
SUM 0.00E+000.00E+000.00E+001.37E-03 0.00E+002.55E-02 0.00E+001.37E-03 0.00E+001.37E-03 1.15E-02
0.00E+001.37E-03 2.55E-02 238131 3814258

ACUTE "HI," RECEPTOR 204
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+009.99E-04 0.00E+000.00E+000.00E+000.00E+009.99E-04
0.00E+000.00E+009.99E-04
3 0.00E+000.00E+000.00E+000.00E+009.56E-03 0.00E+000.00E+000.00E+000.00E+009.56E-03
0.00E+000.00E+009.56E-03
4 0.00E+000.00E+000.00E+001.26E-03 0.00E+000.00E+000.00E+001.26E-03 0.00E+001.26E-03 0.00E+00
0.00E+001.26E-03 1.26E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+001.28E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.28E-02
SUM 0.00E+000.00E+000.00E+001.26E-03 0.00E+002.34E-02 0.00E+001.26E-03 0.00E+001.26E-03 1.06E-02
0.00E+001.26E-03 2.34E-02 237962 3814240

ACUTE "HI," RECEPTOR 205

CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+009.99E-04 0.00E+000.00E+000.00E+000.00E+009.99E-04
0.00E+000.00E+009.99E-04
3 0.00E+000.00E+000.00E+000.00E+009.56E-03 0.00E+000.00E+000.00E+000.00E+009.56E-03
0.00E+000.00E+009.56E-03
4 0.00E+000.00E+000.00E+001.26E-03 0.00E+000.00E+000.00E+001.26E-03 0.00E+001.26E-03 0.00E+00
0.00E+001.26E-03 1.26E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+000.00E+001.28E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.28E-02
SUM 0.00E+000.00E+000.00E+001.26E-03 0.00E+002.34E-02 0.00E+001.26E-03 0.00E+001.26E-03 1.06E-02
0.00E+001.26E-03 2.34E-02 237962 3814240

ACUTE "HI," RECEPTOR 206
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+000.00E+009.47E-04 0.00E+000.00E+000.00E+000.00E+009.47E-04
0.00E+000.00E+009.47E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+009.07E-03 0.00E+000.00E+000.00E+000.00E+009.07E-03
0.00E+000.00E+009.07E-03
4 0.00E+000.00E+000.00E+001.19E-03 0.00E+000.00E+000.00E+001.19E-03 0.00E+001.19E-03 0.00E+00
0.00E+001.19E-03 1.19E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+000.00E+001.22E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.22E-02
SUM 0.00E+000.00E+000.00E+001.19E-03 0.00E+002.22E-02 0.00E+001.19E-03 0.00E+001.19E-03 1.00E-02
0.00E+001.19E-03 2.22E-02 238098 3814165

ACUTE "HI," RECEPTOR 207
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+000.00E+009.47E-04 0.00E+000.00E+000.00E+000.00E+009.47E-04
0.00E+000.00E+009.47E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+009.07E-03 0.00E+000.00E+000.00E+000.00E+009.07E-03
0.00E+000.00E+009.07E-03
4 0.00E+000.00E+000.00E+001.19E-03 0.00E+000.00E+000.00E+001.19E-03 0.00E+001.19E-03 0.00E+00
0.00E+001.19E-03 1.19E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+000.00E+001.22E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.22E-02
SUM 0.00E+000.00E+000.00E+001.19E-03 0.00E+002.22E-02 0.00E+001.19E-03 0.00E+001.19E-03 1.00E-02
0.00E+001.19E-03 2.22E-02 238098 3814165

ACUTE "HI," RECEPTOR 208

CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+009.47E-04 0.00E+000.00E+000.00E+000.00E+009.47E-04
0.00E+000.00E+009.47E-04
3 0.00E+000.00E+000.00E+000.00E+009.07E-03 0.00E+000.00E+000.00E+000.00E+009.07E-03
0.00E+000.00E+009.07E-03
4 0.00E+000.00E+000.00E+001.19E-03 0.00E+000.00E+000.00E+001.19E-03 0.00E+001.19E-03 0.00E+00
0.00E+001.19E-03 1.19E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+000.00E+001.22E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.22E-02
SUM 0.00E+000.00E+000.00E+001.19E-03 0.00E+002.22E-02 0.00E+001.19E-03 0.00E+001.19E-03 1.00E-02
0.00E+001.19E-03 2.22E-02 238098 3814165

ACUTE "HI," RECEPTOR 209
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+000.00E+009.07E-04 0.00E+000.00E+000.00E+000.00E+009.07E-04
0.00E+000.00E+009.07E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+008.70E-03 0.00E+000.00E+000.00E+000.00E+008.70E-03
0.00E+000.00E+008.70E-03
4 0.00E+000.00E+000.00E+001.14E-03 0.00E+000.00E+000.00E+001.14E-03 0.00E+001.14E-03 0.00E+00
0.00E+001.14E-03 1.14E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+000.00E+001.17E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.17E-02
SUM 0.00E+000.00E+000.00E+001.14E-03 0.00E+002.13E-02 0.00E+001.14E-03 0.00E+001.14E-03 9.61E-03
0.00E+001.14E-03 2.13E-02 237957 3814058

ACUTE "HI," RECEPTOR 210
CHEM CV CNSBONE DEVEL ENDO EYEGILV IMMUN KIDN REPRO RESP SKIN
BLOOD MAX UTME UTMN
1 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
2 0.00E+000.00E+000.00E+000.00E+000.00E+009.07E-04 0.00E+000.00E+000.00E+000.00E+009.07E-04
0.00E+000.00E+009.07E-04
3 0.00E+000.00E+000.00E+000.00E+000.00E+008.70E-03 0.00E+000.00E+000.00E+000.00E+008.70E-03
0.00E+000.00E+008.70E-03
4 0.00E+000.00E+000.00E+001.14E-03 0.00E+000.00E+000.00E+001.14E-03 0.00E+001.14E-03 0.00E+00
0.00E+001.14E-03 1.14E-03
5 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+00
6 0.00E+000.00E+000.00E+000.00E+000.00E+001.17E-02 0.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+001.17E-02
SUM 0.00E+000.00E+000.00E+001.14E-03 0.00E+002.13E-02 0.00E+001.14E-03 0.00E+001.14E-03 9.61E-03
0.00E+001.14E-03 2.13E-02 237957 3814058

ACUTE "HI," RECEPTOR 211

	CHEM	CV	CNS	BONE	DEVEL	ENDO	EYE	GILV	IMMUN	KIDN	REPRO	RESP	SKIN	BLOOD	MAX	UTME	UTMN
1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.07E-04	0.00E+00	0.00E+00	9.07E-04			
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-03	0.00E+00	0.00E+00	8.70E-03			
4	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	1.14E-03	0.00E+00	0.00E+00	1.14E-03	1.14E-03			
5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-02			
SUM	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	2.13E-02	0.00E+00	1.14E-03	0.00E+00	1.14E-03	9.61E-03	0.00E+00	1.14E-03	2.13E-02	237957	3814058	

This file: c:\HARP\projects\demo\Rep_Can_9yrA_DerOEH_AllRec_AllSrc_AllCh_ByRec_ByChem_Site_UTM.txt

Created by HARP Version 1.4f Build 23.11.01
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 12/29/2015 3:05:54 PM

EXCEPTION REPORT
(there have been no changes or exceptions)

INPUT FILES:
Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.SRC
Averaging period adjustment factors file: not applicable

Emission rates file: 12.29.15.EMS
Site parameters file: c:\HARP\projects\demo\project.sit

Screening mode is OFF

Exposure duration: 9 year (adult resident)
Analysis method: Derived (OEHHA) Method
Health effect: Cancer Risk
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

"PIGS," CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

SOIL INGESTION

*** Pathway disabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"	0.00E+00
2	75070	Acetaldehyde	Acetaldehyde	0.00E+00
3	107028	Acrolein	Acrolein	0.00E+00
4	71432	Benzene	Benzene	0.00E+00
5	9901	DieselExhPM	Diesel engine "exhaust," particulate matter (Diesel PM)	0.00E+00
6	50000	Formaldehyde	Formaldehyde	0.00E+00

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh) (mg/kg-d)^-1	CancerPF(Oral) (mg/kg-d)^-1	ChronicREL(Inh) ug/m^3	ChronicREL(Oral) mg/kg-d	AcuteREL ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	*	*	3.50E-01 *	2.50E+00	
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded from file:
C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07

75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=33 NAME=3003 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=34 NAME=3004 EMS (lbs/yr)

SOURCEMULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

CANCER RISK REPORT

DOMINANT "PATHWAYS," Receptor 201

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 201

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	1.64E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-07		
2	1.19E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	4.02E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.02E-07		
5	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-05		
6	4.14E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.14E-08		
SUM	1.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-05	238131	3814258

DOMINANT "PATHWAYS," Receptor 202

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 202

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	1.64E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-07		
2	1.19E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	4.02E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.02E-07		
5	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-05		
6	4.14E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.14E-08		
SUM	1.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-05	238131	3814258

DOMINANT "PATHWAYS," Receptor 203

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 203

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	1.64E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-07		
2	1.19E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	4.02E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.02E-07		
5	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-05		
6	4.14E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.14E-08		

SUM 1.54E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.54E-05 238131 3814258

DOMINANT "PATHWAYS," Receptor 204

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG EGG
1	YES	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 204

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	1.49E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.49E-07	
2	1.08E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-08	
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
4	3.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.65E-07	
5	1.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-05	
6	3.76E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-08	
SUM	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-05	237962 3814240

DOMINANT "PATHWAYS," Receptor 205

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG EGG
1	YES	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 205

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	1.49E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.49E-07	
2	1.08E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-08	
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
4	3.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.65E-07	
5	1.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-05	

6 3.76E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+003.76E-08
SUM 1.47E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.47E-05 237962 3814240

DOMINANT "PATHWAYS," Receptor 206
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 206
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.09E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.09E-07
2 7.90E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+007.90E-09
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 2.66E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.66E-07
5 1.72E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.72E-05
6 2.76E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.76E-08
SUM 1.77E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.77E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 207
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 207
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.09E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.09E-07
2 7.90E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+007.90E-09
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 2.66E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.66E-07

5 1.72E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.72E-05
6 2.76E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.76E-08
SUM 1.77E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.77E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 208
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 208
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.09E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.09E-07
2 7.90E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+007.90E-09
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 2.66E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.66E-07
5 1.72E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.72E-05
6 2.76E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.76E-08
SUM 1.77E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.77E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 209
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 209
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 7.73E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+007.73E-08
2 5.60E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+005.60E-09
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00

4 1.89E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.89E-07
5 1.22E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.22E-05
6 1.95E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.95E-08
SUM 1.25E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.25E-05 237957 3814058

DOMINANT "PATHWAYS," Receptor 210
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 210
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 7.73E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+007.73E-08
2 5.60E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+005.60E-09
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 1.89E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.89E-07
5 1.22E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.22E-05
6 1.95E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.95E-08
SUM 1.25E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.25E-05 237957 3814058

DOMINANT "PATHWAYS," Receptor 211
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 211
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 7.73E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+007.73E-08
2 5.60E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+005.60E-09

3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 1.89E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.89E-07
5 1.22E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.22E-05
6 1.95E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.95E-08
SUM 1.25E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.25E-05 237957 3814058

This file: c:\HARP\projects\demo\Rep_Can_9yrC_DerOEH_AllRec_AllSrc_AllCh_ByRec_ByChem_Site_UTM.txt

Created by HARP Version 1.4f Build 23.11.01
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 12/29/2015 3:06:00 PM

EXCEPTION REPORT
(there have been no changes or exceptions)

INPUT FILES:
Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.SRC
Averaging period adjustment factors file: not applicable

Emission rates file: 12.29.15.EMS
Site parameters file: c:\HARP\projects\demo\project.sit

Screening mode is OFF

Exposure duration: 9 year (child resident)
Analysis method: Derived (OEHHA) Method
Health effect: Cancer Risk
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

"PIGS," CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

SOIL INGESTION

*** Pathway disabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"	0.00E+00
2	75070	Acetaldehyde	Acetaldehyde	0.00E+00
3	107028	Acrolein	Acrolein	0.00E+00
4	71432	Benzene	Benzene	0.00E+00
5	9901	DieselExhPM	Diesel engine "exhaust," particulate matter (Diesel PM)	0.00E+00
6	50000	Formaldehyde	Formaldehyde	0.00E+00

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh) (mg/kg-d)^-1	CancerPF(Oral) (mg/kg-d)^-1	ChronicREL(Inh) ug/m^3	ChronicREL(Oral) mg/kg-d	AcuteREL ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	*	*	3.50E-01 *	2.50E+00	
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded from file:
C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07

75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=33 NAME=3003 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=34 NAME=3004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	0.00E+00	0.00E+00
75070	Acetaldehyde	1	0	0.00E+00	0.00E+00
107028	Acrolein	1	0	0.00E+00	0.00E+00
71432	Benzene	1	0	0.00E+00	0.00E+00
9901	DieselExhPM	1	0	2.00E+01	2.28E-03
50000	Formaldehyde	1	0	0.00E+00	0.00E+00

CANCER RISK REPORT

DOMINANT "PATHWAYS," Receptor 201

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 201

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	2.43E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-07		
2	1.76E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	5.94E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E-07		
5	2.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-05		
6	6.12E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.12E-08		
SUM	2.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-05	238131	3814258

DOMINANT "PATHWAYS," Receptor 202

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG EGG
1	YES	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 202

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	2.43E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-07		
2	1.76E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	5.94E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E-07		
5	2.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-05		
6	6.12E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.12E-08		
SUM	2.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-05	238131	3814258

DOMINANT "PATHWAYS," Receptor 203

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG EGG
1	YES	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 203

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	2.43E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-07		
2	1.76E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	5.94E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E-07		
5	2.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-05		
6	6.12E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.12E-08		
SUM	2.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			

0.00E+000.00E+000.00E+002.27E-05 238131 3814258

DOMINANT "PATHWAYS," Receptor 204

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 204

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	2.21E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.21E-07		
2	1.59E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	5.39E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.39E-07		
5	2.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-05		
6	5.56E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.56E-08		
SUM	2.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-05	237962	3814240

DOMINANT "PATHWAYS," Receptor 205

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 205

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	2.21E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.21E-07		
2	1.59E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	5.39E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.39E-07		
5	2.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-05		
6	5.56E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			

0.00E+000.00E+000.00E+005.56E-08
SUM 2.17E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.17E-05 237962 3814240

DOMINANT "PATHWAYS," Receptor 206
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 206
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.61E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.61E-07
2 1.17E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.17E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 3.94E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+003.94E-07
5 2.55E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.55E-05
6 4.08E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.08E-08
SUM 2.61E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.61E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 207
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 207
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.61E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.61E-07
2 1.17E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.17E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 3.94E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+003.94E-07
5 2.55E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00

0.00E+000.00E+000.00E+002.55E-05
6 4.08E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.08E-08
SUM 2.61E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.61E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 208
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 208
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.61E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.61E-07
2 1.17E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.17E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 3.94E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+003.94E-07
5 2.55E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.55E-05
6 4.08E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.08E-08
SUM 2.61E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.61E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 209
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 209
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.14E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.14E-07
2 8.28E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+008.28E-09
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 2.79E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00

0.00E+000.00E+000.00E+002.79E-07
5 1.81E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.81E-05
6 2.89E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.89E-08
SUM 1.85E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.85E-05 237957 3814058

DOMINANT "PATHWAYS," Receptor 210
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 210
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.14E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.14E-07
2 8.28E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+008.28E-09
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 2.79E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.79E-07
5 1.81E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.81E-05
6 2.89E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.89E-08
SUM 1.85E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.85E-05 237957 3814058

DOMINANT "PATHWAYS," Receptor 211
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 211
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 1.14E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.14E-07
2 8.28E-09 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+008.28E-09
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00

0.00E+000.00E+000.00E+000.00E+00
4 2.79E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.79E-07
5 1.81E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.81E-05
6 2.89E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.89E-08
SUM 1.85E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.85E-05 237957 3814058

This file: c:\HARP\projects\demo\Rep_Can_30yr_DerOEH_AllRec_AllSrc_AllCh_ByRec_ByChem_Site_UTM.txt

Created by HARP Version 1.4f Build 23.11.01
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 12/29/2015 3:05:01 PM

EXCEPTION REPORT
(there have been no changes or exceptions)

INPUT FILES:
Source-Receptor file: C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.SRC
Averaging period adjustment factors file: not applicable

Emission rates file: 12.29.15.EMS
Site parameters file: c:\HARP\projects\demo\project.sit

Screening mode is OFF

Exposure duration: 30 year (adult resident)
Analysis method: Derived (OEHHA) Method
Health effect: Cancer Risk
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

*** Pathway disabled ***

"PIGS," CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway disabled ***

SOIL INGESTION

*** Pathway disabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
1	106990	"1,3-Butadiene"	"1,3-Butadiene"	0.00E+00
2	75070	Acetaldehyde	Acetaldehyde	0.00E+00
3	107028	Acrolein	Acrolein	0.00E+00
4	71432	Benzene	Benzene	0.00E+00
5	9901	DieselExhPM	Diesel engine "exhaust," particulate matter (Diesel PM)	0.00E+00
6	50000	Formaldehyde	Formaldehyde	0.00E+00

CHEMICAL HEALTHVALUES

CHEM	CAS	ABBREVIATION	CancerPF(Inh) (mg/kg-d)^-1	CancerPF(Oral) (mg/kg-d)^-1	ChronicREL(Inh) ug/m^3	ChronicREL(Oral) mg/kg-d	AcuteREL ug/m^3
1	106990	"1,3-Butadiene"	6.00E-01 *	2.00E+01 *	*		
2	75070	Acetaldehyde	1.00E-02 *	1.40E+02 *	4.70E+02		
3	107028	Acrolein	*	*	3.50E-01 *	2.50E+00	
4	71432	Benzene	1.00E-01 *	6.00E+01 *	1.30E+03		
5	9901	DieselExhPM	1.10E+00 *	5.00E+00 *	*		
6	50000	Formaldehyde	2.10E-02 *	9.00E+00 *	5.50E+01		

EMISSIONS DATA SOURCE: Emission rates loaded from file:
C:\Users\lsarquilla\Desktop\HARP2\HERITAGE RIDGE 2 - onramp\offramp\12.29.15.EMS

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=1 NAME=1001 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=2 NAME=1002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=3 NAME=1003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=4 NAME=1004 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=5 NAME=1005 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=6 NAME=1006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=7 NAME=1007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=8 NAME=1008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=9 NAME=1009 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=10 NAME=1010 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=11 NAME=1011 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=12 NAME=1012 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=13 NAME=1013 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=14 NAME=1014 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=15 NAME=1015 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=16 NAME=1016 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=17 NAME=1017 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=18 NAME=1018 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05
75070	Acetaldehyde	1	0	1.73E+00	2.00E-04
107028	Acrolein	1	0	1.00E-01	1.00E-05
71432	Benzene	1	0	5.88E+00	7.00E-04
9901	DieselExhPM	1	0	4.10E+00	5.00E-04
50000	Formaldehyde	1	0	2.87E+00	3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=19 NAME=1019 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	4.00E-01	5.00E-05

75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=20 NAME=1020 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 4.00E-01 5.00E-05
75070 Acetaldehyde 1 0 1.73E+00 2.00E-04
107028 Acrolein 1 0 1.00E-01 1.00E-05
71432 Benzene 1 0 5.88E+00 7.00E-04
9901 DieselExhPM 1 0 4.10E+00 5.00E-04
50000 Formaldehyde 1 0 2.87E+00 3.00E-04

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=21 NAME=2001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=22 NAME=2002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=23 NAME=2003 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=24 NAME=2004 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=25 NAME=2005 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=26 NAME=2006 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=27 NAME=2007 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07
75070	Acetaldehyde	1	0	2.00E-02	2.00E-06
107028	Acrolein	1	0	3.00E-03	4.00E-07
71432	Benzene	1	0	2.00E-03	2.00E-07
9901	DieselExhPM	1	0	3.79E+01	4.30E-03
50000	Formaldehyde	1	0	4.00E-02	4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=28 NAME=2008 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
106990	"1,3-Butadiene"	1	0	2.00E-03	3.00E-07

75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=29 NAME=2009 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=30 NAME=2010 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 2.00E-03 3.00E-07
75070 Acetaldehyde 1 0 2.00E-02 2.00E-06
107028 Acrolein 1 0 3.00E-03 4.00E-07
71432 Benzene 1 0 2.00E-03 2.00E-07
9901 DieselExhPM 1 0 3.79E+01 4.30E-03
50000 Formaldehyde 1 0 4.00E-02 4.00E-06

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=31 NAME=3001 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FOR FACILITY FAC=1 DEV=* PRO=* STK=32 NAME=3002 EMS (lbs/yr)

SOURCE MULTIPLIER=1
CAS ABBREV MULTIPLIER BG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+00 0.00E+00
75070 Acetaldehyde 1 0 0.00E+00 0.00E+00
107028 Acrolein 1 0 0.00E+00 0.00E+00
71432 Benzene 1 0 0.00E+00 0.00E+00
9901 DieselExhPM 1 0 2.00E+01 2.28E-03
50000 Formaldehyde 1 0 0.00E+00 0.00E+00

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=33 NAME=3003 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+000.00E+00
75070 Acetaldehyde 1 0 0.00E+000.00E+00
107028 Acrolein 1 0 0.00E+000.00E+00
71432 Benzene 1 0 0.00E+000.00E+00
9901 DieselExhPM 1 0 2.00E+012.28E-03
50000 Formaldehyde 1 0 0.00E+000.00E+00

EMISSIONS FORFACILITY FAC=1 DEV=* PRO=* STK=34 NAME=3004 EMS (lbs/yr)

SOURCEMULTIPLIER=1
CASABBREV MULTIPLIERBG (ug/m^3) AVRG (lbs/yr) MAX (lbs/hr)

106990 "1,3-Butadiene" 1 0 0.00E+000.00E+00
75070 Acetaldehyde 1 0 0.00E+000.00E+00
107028 Acrolein 1 0 0.00E+000.00E+00
71432 Benzene 1 0 0.00E+000.00E+00
9901 DieselExhPM 1 0 2.00E+012.28E-03
50000 Formaldehyde 1 0 0.00E+000.00E+00

CANCER RISK REPORT

DOMINANT "PATHWAYS," Receptor 201
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG EGG
1 YES- - - - - - - - - - -
2 YES- - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES- - - - - - - - - - -
5 YES- - - - - - - - - - -
6 YES- - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 201
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG EGG MEAT ORAL TOTAL UTME UTMN
1 5.48E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+000.00E+000.00E+005.48E-07
2 3.96E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+000.00E+000.00E+003.96E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+000.00E+000.00E+000.00E+00
4 1.34E-06 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+000.00E+000.00E+001.34E-06
5 4.92E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+000.00E+000.00E+004.92E-05
6 1.38E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+000.00E+000.00E+001.38E-07
SUM 5.12E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00 0.00E+000.00E+000.00E+005.12E-05 238131 3814258

DOMINANT "PATHWAYS," Receptor 202

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 202

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	5.48E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.48E-07	
2	3.96E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-08	
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
4	1.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.34E-06	
5	4.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.92E-05	
6	1.38E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-07	
SUM	5.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.12E-05	238131	3814258

DOMINANT "PATHWAYS," Receptor 203

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 203

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	5.48E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.48E-07	
2	3.96E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-08	
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
4	1.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.34E-06	
5	4.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.92E-05	
6	1.38E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-07	
SUM	5.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			

0.00E+000.00E+000.00E+005.12E-05 238131 3814258

DOMINANT "PATHWAYS," Receptor 204

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 204

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	4.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.97E-07		
2	3.60E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	1.22E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-06		
5	4.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.71E-05		
6	1.25E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-07		
SUM	4.90E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.90E-05	237962	3814240

DOMINANT "PATHWAYS," Receptor 205

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG
1	YES	-	-	-	-	-	-	-	-	-	-	-
2	YES	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	YES	-	-	-	-	-	-	-	-	-	-	-
5	YES	-	-	-	-	-	-	-	-	-	-	-
6	YES	-	-	-	-	-	-	-	-	-	-	-

DERIVED CANCER "RISK," RECEPTOR 205

CHEM	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	UTME	UTMN
1	4.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.97E-07		
2	3.60E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-08		
3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
4	1.22E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-06		
5	4.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.71E-05		
6	1.25E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			

0.00E+000.00E+000.00E+001.25E-07
SUM 4.90E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.90E-05 237962 3814240

DOMINANT "PATHWAYS," Receptor 206
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 206
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 3.64E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+003.64E-07
2 2.63E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.63E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 8.88E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+008.88E-07
5 5.75E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+005.75E-05
6 9.20E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+009.20E-08
SUM 5.89E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+005.89E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 207
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 207
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 3.64E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+003.64E-07
2 2.63E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.63E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 8.88E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+008.88E-07
5 5.75E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00

0.00E+000.00E+000.00E+005.75E-05
6 9.20E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+009.20E-08
SUM 5.89E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+005.89E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 208
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 208
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 3.64E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+003.64E-07
2 2.63E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.63E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 8.88E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+008.88E-07
5 5.75E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+005.75E-05
6 9.20E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+009.20E-08
SUM 5.89E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+005.89E-05 238098 3814165

DOMINANT "PATHWAYS," Receptor 209
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 209
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 2.58E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.58E-07
2 1.87E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.87E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 6.29E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00

0.00E+000.00E+000.00E+006.29E-07
5 4.08E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.08E-05
6 6.52E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+006.52E-08
SUM 4.17E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.17E-05 237957 3814058

DOMINANT "PATHWAYS," Receptor 210
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 210
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 2.58E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.58E-07
2 1.87E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.87E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+000.00E+00
4 6.29E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+006.29E-07
5 4.08E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.08E-05
6 6.52E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+006.52E-08
SUM 4.17E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.17E-05 237957 3814058

DOMINANT "PATHWAYS," Receptor 211
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG
1 YES - - - - - - - - - - -
2 YES - - - - - - - - - - -
3 - - - - - - - - - - - -
4 YES - - - - - - - - - - -
5 YES - - - - - - - - - - -
6 YES - - - - - - - - - - -

DERIVED CANCER "RISK," RECEPTOR 211
CHEM INHAL DERM SOIL MOTHER FISH WATER VEG DAIRY BEEF CHICK PIG
EGG MEAT ORAL TOTAL UTME UTMN
1 2.58E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+002.58E-07
2 1.87E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+001.87E-08
3 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00

0.00E+000.00E+000.00E+000.00E+00
4 6.29E-07 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+006.29E-07
5 4.08E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.08E-05
6 6.52E-08 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+006.52E-08
SUM 4.17E-05 0.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+000.00E+00
0.00E+000.00E+000.00E+004.17E-05 237957 3814058

CHRONIC HI REPORT

REC	CV	CNS	BONE	DEVEL	ENDO	EYE	GILV	IMMUN	KIDN	REPRO	RESP	SKIN	BLOOD	MAX
201	0.00E+00	1.38E-03	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.83E-04	6.41E-02	0.00E+00	1.38E-03	6.41E-02
202	0.00E+00	1.38E-03	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.83E-04	6.41E-02	0.00E+00	1.38E-03	6.41E-02
203	0.00E+00	1.38E-03	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.83E-04	6.41E-02	0.00E+00	1.38E-03	6.41E-02
204	0.00E+00	1.26E-03	0.00E+00	1.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-04	6.10E-02	0.00E+00	1.26E-03	6.10E-02
205	0.00E+00	1.26E-03	0.00E+00	1.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-04	6.10E-02	0.00E+00	1.26E-03	6.10E-02
206	0.00E+00	9.16E-04	0.00E+00	9.16E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-04	7.06E-02	0.00E+00	9.16E-04	7.06E-02
207	0.00E+00	9.16E-04	0.00E+00	9.16E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-04	7.06E-02	0.00E+00	9.16E-04	7.06E-02
208	0.00E+00	9.16E-04	0.00E+00	9.16E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-04	7.06E-02	0.00E+00	9.16E-04	7.06E-02
209	0.00E+00	6.49E-04	0.00E+00	6.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-04	5.00E-02	0.00E+00	6.49E-04	5.00E-02
210	0.00E+00	6.49E-04	0.00E+00	6.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-04	5.00E-02	0.00E+00	6.49E-04	5.00E-02
211	0.00E+00	6.49E-04	0.00E+00	6.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-04	5.00E-02	0.00E+00	6.49E-04	5.00E-02

ACUTE HI REPORT

REC	CV	CNS	BONE	DEVEL	ENDO	EYE	GILV	IMMUN	KIDN	REPRO	RESP	SKIN	BLOOD	MAX
201	0.00E+00	0.00E+00	0.00E+00	1.37E-03	0.00E+00	2.55E-02	0.00E+00	1.37E-03	0.00E+00	1.37E-03	1.15E-02	0.00E+00	1.37E-03	2.55E-02
202	0.00E+00	0.00E+00	0.00E+00	1.37E-03	0.00E+00	2.55E-02	0.00E+00	1.37E-03	0.00E+00	1.37E-03	1.15E-02	0.00E+00	1.37E-03	2.55E-02
203	0.00E+00	0.00E+00	0.00E+00	1.37E-03	0.00E+00	2.55E-02	0.00E+00	1.37E-03	0.00E+00	1.37E-03	1.15E-02	0.00E+00	1.37E-03	2.55E-02
204	0.00E+00	0.00E+00	0.00E+00	1.26E-03	0.00E+00	2.34E-02	0.00E+00	1.26E-03	0.00E+00	1.26E-03	1.06E-02	0.00E+00	1.26E-03	2.34E-02
205	0.00E+00	0.00E+00	0.00E+00	1.26E-03	0.00E+00	2.34E-02	0.00E+00	1.26E-03	0.00E+00	1.26E-03	1.06E-02	0.00E+00	1.26E-03	2.34E-02
206	0.00E+00	0.00E+00	0.00E+00	1.19E-03	0.00E+00	2.22E-02	0.00E+00	1.19E-03	0.00E+00	1.19E-03	1.00E-02	0.00E+00	1.19E-03	2.22E-02
207	0.00E+00	0.00E+00	0.00E+00	1.19E-03	0.00E+00	2.22E-02	0.00E+00	1.19E-03	0.00E+00	1.19E-03	1.00E-02	0.00E+00	1.19E-03	2.22E-02
208	0.00E+00	0.00E+00	0.00E+00	1.19E-03	0.00E+00	2.22E-02	0.00E+00	1.19E-03	0.00E+00	1.19E-03	1.00E-02	0.00E+00	1.19E-03	2.22E-02
209	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	2.13E-02	0.00E+00	1.14E-03	0.00E+00	1.14E-03	9.61E-03	0.00E+00	1.14E-03	2.13E-02
210	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	2.13E-02	0.00E+00	1.14E-03	0.00E+00	1.14E-03	9.61E-03	0.00E+00	1.14E-03	2.13E-02
211	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	2.13E-02	0.00E+00	1.14E-03	0.00E+00	1.14E-03	9.61E-03	0.00E+00	1.14E-03	2.13E-02

CANCER Risk Report: 9 year Child

REC	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	
201	2.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-05	2.61E-05
202	2.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-05	
203	2.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-05	
204	2.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-05	
205	2.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-05	
206	2.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-05	
207	2.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-05	
208	2.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-05	
209	1.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-05	
210	1.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-05	
211	1.85E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-05	

CANCER Risk Report: 9 year Adult

REC	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	
201	1.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-05	1.77E-05
202	1.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-05	
203	1.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-05	
204	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-05	
205	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-05	
206	1.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-05	
207	1.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-05	
208	1.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-05	
209	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-05	
210	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-05	
211	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-05	

CANCER Risk Report: 30 year

REC	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL	
201	5.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.12E-05	5.89E-05
202	5.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.12E-05	
203	5.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.12E-05	
204	4.90E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.90E-05	
205	4.90E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.90E-05	
206	5.89E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.89E-05	
207	5.89E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.89E-05	
208	5.89E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.89E-05	
209	4.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-05	
210	4.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-05	
211	4.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-05	

Mitigated Potential Carcinogenic Health Risks Within the Project Site Calculation

		Factor
EF =	Exposure frequency in days per year	350
EFa =	Exp. Freq adjusted outside; only 2.3 hours/day out	33.5
EFai =	Exp. Freq adjusted inside; 16.9 hours/day inside	246.5
FE =	Filter Efficiency	90%

Equation = Mitigated Risk = [Unmitigated Risk]/EF*EFa+(1-FE)*([Unmitigated Risk]/EF*Efai)

Cancer Health Risk - 30 Year (Residency at 95th Percentile)

		Unmitigated Risk	Exceed Criterion? (10^{-5})	Mitigated Risk	Exceed Criterion? (10^{-5})
1	Residential 1 - First Floor	5.12E-05	YES	8.51E-06	NO
2	Residential 1 - Second Floor	5.12E-05	YES	8.51E-06	NO
3	Residential 1 - Third Floor	5.12E-05	YES	8.51E-06	NO
4	Residential 2 - First Floor	4.90E-05	YES	8.15E-06	NO
5	Residential 2 - Second Floor	4.90E-05	YES	8.15E-06	NO
6	Residential 3 - First Floor	5.89E-05	YES	9.79E-06	NO
7	Residential 3 - Second Floor	5.89E-05	YES	9.79E-06	NO
8	Residential 3 - Third Floor	5.89E-05	YES	9.79E-06	NO
9	Residential 4 - First Floor	4.17E-05	YES	6.93E-06	NO
10	Residential 4 - Second Floor	4.17E-05	YES	6.93E-06	NO
11	Residential 4 - Third Floor	4.17E-05	YES	6.93E-06	NO

Cancer Health Risk - 9 Year Residency Adult (average - 50th percentile)

		Unmitigated Risk	Exceed Criterion? (10^{-5})	Mitigated Risk	Exceed Criterion? (10^{-5})
1	Residential 1 - First Floor	1.54E-05	YES	2.56E-06	NO
2	Residential 1 - Second Floor	1.54E-05	YES	2.56E-06	NO
3	Residential 1 - Third Floor	1.54E-05	YES	2.56E-06	NO
4	Residential 2 - First Floor	1.47E-05	YES	2.44E-06	NO
5	Residential 2 - Second Floor	1.47E-05	YES	2.44E-06	NO
6	Residential 3 - First Floor	1.77E-05	YES	2.94E-06	NO
7	Residential 3 - Second Floor	1.77E-05	YES	2.94E-06	NO
8	Residential 3 - Third Floor	1.77E-05	YES	2.94E-06	NO
9	Residential 4 - First Floor	1.25E-05	YES	2.08E-06	NO
10	Residential 4 - Second Floor	1.25E-05	YES	2.08E-06	NO
11	Residential 4 - Third Floor	1.25E-05	YES	2.08E-06	NO

Cancer Health Risk - 9 Year Residency Child (average - 50th percentile)

		Unmitigated Risk	Exceed Criterion? (10^{-5})	Mitigated Risk	Exceed Criterion? (10^{-5})
1	Residential 1 - First Floor	2.27E-05	YES	3.77E-06	NO
2	Residential 1 - Second Floor	2.27E-05	YES	3.77E-06	NO
3	Residential 1 - Third Floor	2.27E-05	YES	3.77E-06	NO
4	Residential 2 - First Floor	2.17E-05	YES	3.61E-06	NO
5	Residential 2 - Second Floor	2.17E-05	YES	3.61E-06	NO
6	Residential 3 - First Floor	2.61E-05	YES	4.34E-06	NO
7	Residential 3 - Second Floor	2.61E-05	YES	4.34E-06	NO
8	Residential 3 - Third Floor	2.61E-05	YES	4.34E-06	NO
9	Residential 4 - First Floor	1.85E-05	YES	3.08E-06	NO
10	Residential 4 - Second Floor	1.85E-05	YES	3.08E-06	NO
11	Residential 4 - Third Floor	1.85E-05	YES	3.08E-06	NO

Appendix D

Biological Resources Assessment

Species Potential to Occur Table – Updated April 2021

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Plants and Lichens				
Abronia maritima red sand-verbena	None/None G4/S3? 4.2	Perennial herb. Blooms Feb-Nov. Occurs in coastal dunes of central and southern California, as well as the Channel Islands. Formerly fairly widespread, but available habitat has decreased, especially in Southern California. Under 100m (330ft).	None	Suitable habitat not present on site.
Amsinckia douglasiana Douglas' fiddleneck	None/None G4/S4 4.2 SBBG	Cismontane woodland, Valley and foothill grassland. Monterey shale, dry. 0 - 1950 m. annual herb. Blooms Mar-May	None	Suitable habitat and soils not present on site. No CNDDB records within 5 miles.
Anomobryum julaceum slender silver moss	None/None G5?/S2 4.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest. damp rock and soil on outcrops, usually on roadcuts. 100 - 1000 m. moss. Blooms	None	Suitable habitat not present on site.
Arctostaphylos refugioensis Refugio manzanita	None/None G3/S3 1B.2 SBBG	Chaparral (sandstone). 274 - 820 m. perennial evergreen shrub. Blooms Dec-Mar (May)	None	Suitable habitat not present on site.
Atriplex coulteri Coulter's saltbush	None/None G3/S1S2 1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland. alkaline or clay. 3 - 460 m. perennial herb. Blooms Mar-Oct	Low	Marginal habitat present on site. Known CNDDB occurrence 2-miles east of site. Known from the Goleta Slough. Not detected during surveys.
Atriplex serenana var. *davidsonii* Davidson's saltscale	None/None G5T1/S1 1B.2	Annual herb. Blooms April to October. Coastal bluff scrub, coastal scrub. Alkaline soil. 3-250m (10-820ft).	Low	Marginal habitat present on site. Not detected during surveys.
Baccharis plummerae ssp. *plummerae* Plummer's baccharis	None/None G3T3/S3 4.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub. rocky. 5 - 425 m. perennial deciduous shrub. Blooms May, Aug, Sep, Oct	None	Suitable habitat not present onsite.
Calandrinia breweri Brewer's calandrinia	None/None G4/S4 4.2 SBBG	Chaparral, Coastal scrub. sandy or loamy, disturbed sites and burns. 10 - 1220 m. annual herb. Blooms (Jan) Mar-Jun	None	Suitable habitat not present on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Calochortus catalinae Catalina mariposa lily	None/None G3G4/S3S4 4.2 SBBG	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland. 15 - 700 m. perennial bulbiferous herb. Blooms (Feb) Mar-Jun	None	Suitable habitat not present on site.
Calochortus fimbriatus late-flowered mariposa lily	None/None G3/S3 1B.3 SBBG	Chaparral, Cismontane woodland, Riparian woodland. often serpentinite. 275 - 1905 m. perennial bulbiferous herb. Blooms Jun-Aug	None	Suitable habitat and serpentine soils not present on site.
Centromadia parryi ssp. *australis* southern tarplant	None/None G3T2/S2 1B.1 SBBG	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools. 0 - 480 m. annual herb. Blooms May-Nov	Low	No vernal pool habitat present on site, marginal habitat off-site in Los Camaros Wetland. Multiple CNDDB occurrences greater than 1 mile east, west and south of the site near water. Known from the Goleta Slough 0.5 mile south. Not detected during surveys.
Chorizanthe palmeri Palmer's spineflower	None/None G4/S4 4.2	Chaparral, Cismontane woodland, Valley and foothill grassland. rocky, serpentinite. 55 - 945 m. annual herb. Blooms Apr-Aug	None	Suitable habitat not present on site. Outside of elevation requirements.
Deinandra paniculata paniculate tarplant	None/None G4/S4 4.2	Coastal scrub, Valley and foothill grassland, Vernal pools. usually vernally mesic, sometimes sandy. 25 - 940 m. annual herb. Blooms (Mar) Apr-Nov (Dec)	None	Suitable habitat not present on site. Outside of elevation requirements.
Delphinium umbraculorum umbrella larkspur	None/None G3/S3 1B.3	Chaparral, Cismontane woodland. 400 - 1600 m. perennial herb. Blooms Apr-Jun	None	Suitable habitat not present on site. Outside of elevation requirements.
Erigeron sanctarum saints' daisy	None/None G3/S3 4.2	Chaparral, Cismontane woodland, Coastal scrub. 75 - 350 m. perennial rhizomatous herb. Blooms Mar-Jul	None	Suitable habitat not present on site. Outside of elevation requirements.
Eriogonum elegans elegant wild buckwheat	None/None G4G5/S4S5 4.3	Cismontane woodland, Valley and foothill grassland. Usually sandy or gravelly, often washes, sometimes roadsides. 200 - 1525 m. annual herb. Blooms May-Nov	None	Suitable habitat not present on site. Outside of elevation requirements.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Fritillaria ojaiensis Ojai fritillary	None/None G3/S3 1B.2 SBBG	Broadleafed upland forest (mesic), Chaparral, Cismontane woodland, Lower montane coniferous forest. rocky. 225 - 998 m. perennial bulbiferous herb. Blooms Feb-May	None	Suitable habitat not present on site. Outside of elevation requirements.
Galium cliftonsmithii Santa Barbara bedstraw	None/None G4/S4 4.3	Cismontane woodland. 200 - 1220 m. perennial herb. Blooms May-Jul	None	Suitable habitat not present on site. Outside of elevation requirements.
Horkelia cuneata var. *puberula* mesa horkelia	None/None G4T1/S1 1B.1	Perennial herb. Blooms February to September. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 70-810m (230-2655ft).	None	Suitable habitat not present on site. Outside of elevation requirements.
Juglans californica Southern California black walnut	None/None G4/S4 4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland. alluvial. 50 - 900 m. perennial deciduous tree. Blooms Mar-Aug	None	Suitable habitat not present on site. Outside of elevation requirements.
Juncus acutus ssp. *leopoldii* southwestern spiny rush	None/None G5T5/S4 4.2	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt). 3 - 900 m. perennial rhizomatous herb. Blooms (Mar) May-Jun	None	Suitable habitat not present on site.
Juncus luciensis Santa Lucia dwarf rush	None/None G3/S3 1B.2	Chaparral, Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Vernal pools. 300 - 2040 m. annual herb. Blooms Apr-Jul	None	Suitable habitat not present on site.
Lasthenia conjugens Contra Costa goldfields	FE/None G1/S1 1B.1	Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools. mesic. 0 - 470 m. annual herb. Blooms Mar-Jun	Low	Historical (1972) extirpated Project vicinity CNDDB record in on the Isla Vista bluffs. Marginal habitat present on site. Low potential to occur due to long history of disturbance. Not detected during surveys.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	None/None G4T2/S2 1B.1 SBBG	Annual herb. Blooms February to June. Coastal salt marshes, playas, valley and foothill grassland, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1400m (3-4595ft).	Low	Marginal grassland habitat present on site. Low potential to occur due to long history of disturbance. CNDDB (1982) occurrence 0.5 mile south of Project on opposite side of Hollister Avenue in the Goleta Slough.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Layia heterotricha pale-yellow layia	None/None G2/S2 1B.1 SBBG	Cismontane woodland, Coastal scrub, Pinyon and juniper woodland, Valley and foothill grassland. alkaline or clay. 300 - 1705 m. annual herb. Blooms Mar-Jun	Low	Marginal habitat present on site. Low potential to occur due to long history of disturbance. Not detected during surveys.
Lepechinia fragrans fragrant pitcher sage	None/None G3/S3 4.2	Chaparral. 20 - 1310 m. perennial shrub. Blooms Mar-Oct	None	Suitable habitat not present on site. Outside of elevation requirements.
Lonicera subspicata var. *subspicata* Santa Barbara honeysuckle	None/None G5T2?/S2? 1B.2	Chaparral, Cismontane woodland, Coastal scrub. 10 - 1000 m. perennial evergreen shrub. Blooms May-Aug (Dec-Feb)	Low	Marginal habitat present on site. Low potential to occur due to long history of disturbance. Not detected during surveys.
Malacothrix saxatilis var. *saxatilis* cliff malacothrix	None/None G5T4/S4 4.2	Coastal bluff scrub, Coastal scrub. 3 - 200 m. perennial rhizomatous herb. Blooms Mar-Sep	None	Suitable habitat not present on site.
Monardella hypoleuca ssp. *hypoleuca* white-veined monardella	None/None G4T3/S3 1B.3	Perennial herb. Blooms April to December. Chaparral, cismontane woodland. Dry slopes. 50-1525m (165-5005ft)	None	Suitable habitat not present on site. Outside of elevation requirements.
Pleuridium mexicanum Mexican earthmoss	None/None G5/S1 2B.1	Chaparral. Sandstone. 440 - 440 m. moss. Blooms	None	Suitable habitat not present on site. Outside of elevation requirements.
Scrophularia atrata black-flowered figwort	None/None G2?/S2? 1B.2	Closed-cone coniferous forest, Chaparral, Coastal dunes, Coastal scrub, Riparian scrub. 10 - 500 m. perennial herb. Blooms Mar-Jul	Low	Marginal habitat present on site. Low potential to occur due to long history of disturbance. Not detected during surveys.
Senecio astephanus San Gabriel ragwort	None/None G3/S3 4.3	Coastal bluff scrub, Chaparral. rocky slopes. 400 - 1500 m. perennial herb. Blooms May-Jul	None	Suitable habitat not present on site. Outside of elevation requirements.
Suaeda esteroa estuary seablite	None/None G3/S2 1B.2	Marshes and swamps (coastal salt). 0 - 5 m. perennial herb. Blooms (May) Jul-Oct (Jan)	None	Suitable habitat not present on site.
Thelypteris puberula var. *sonorensis* Sonoran maiden fern	None/None G5T3/S2 2B.2	Meadows and seeps (seeps and streams). 50 - 610 m. perennial rhizomatous herb. Blooms Jan-Sep	None	Suitable habitat not present on site. Outside of elevation requirements.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Thermopsis macrophylla Santa Ynez false lupine	None/SR G1/S1 1B.3 SBBG	Chaparral (sandy, granitic, disturbed areas). 425 - 1400 m. perennial rhizomatous herb. Blooms Apr-Jun	None	Suitable habitat not present on site. Outside of elevation requirements.
Invertebrates				
Bombus crotchii Crotch bumble bee	None/SCE G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Low	No CNDDB occurrences within five miles.
Danaus plexippus pop. 1 monarch - California overwintering population	None/None G4T2T3/S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Low	No suitable habitat present. Eucalyptus trees are approximately 100 feet north of the Project site, but the monarch butterfly host and food plants are absent from the Project site. There are no historical reports of monarch butterflies using these trees for roosting aggregations. Plants that would serve as food sources for monarch butterflies are absent from within the Project site.
Tryonia imitator mimic tryonia (=California brackishwater snail)	None/None G2/S2	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types; able to withstand a wide range of salinities.	None	Suitable habitat not present on site.
Fish				
Eucyclogobius newberryi tidewater goby	FE/None G3/S3	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.		No habitat present on site, or anticipated or in channelized Los Carneros Creek. Critical habitat off-site downstream in Creek, south of Hollister Avenue.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	FE/None G5T1Q/S1	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.		
Amphibians				
Rana boylii foothill yellow-legged frog	None/SE G3/S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	None	Suitable habitat not present on site.
Rana draytonii California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	None	Suitable habitat not present on site, Los Carneros creek does not provide a permanent water source. No watershed CNDDB records.
Taricha torosa Coast Range newt	None/None G4/S4 SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats & will migrate over 1 km to breed in ponds, reservoirs & slow-moving streams.	None	Suitable habitat not present on site.
Reptiles				
Anniella pulchra Northern California legless lizard	None/None G3/S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	None	No suitable habitat on site.
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	None	No suitable habitat on site. Suitable ponding and basking sites off-site in Los Carneros Creek.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Phrynosoma blainvillii coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	None	No suitable habitat on site.
Salvadora hexalepis virgultea coast patch-nosed snake	None/None G5T4/S2S3 SSC	Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites.	None	No suitable habitat on site.
Thamnophis hammondii two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	None	Suitable habitat not present on site, potential to occur off-site in Los Carneros Creek riparian area. No CNDDB records within 5 miles
Birds				
Agelaius tricolor tricolored blackbird	None/ST G2G3/S1S2 SSC	Freshwater wetlands or open water with dense cattails, bulrush, and willows for nesting. Nest in large groups.	None	No CNDDB records within 5 miles. Project site lacks suitable habitat.
Ammodramus savannarum grasshopper sparrow	None/None G5/S3 SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Low	Breeding localities include west of Goleta. Potential visitant, transient, foraging only. 2007 airport eBird records; 2015 and 2014 eBird sightings concentrated at the Elwood Open Space, four miles west.
Aquila chrysaetos golden eagle	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	None	No suitable nesting habitat and Project site is likely too small and proximal to urban development to provide foraging habitat. No CNDDB records within 5 miles.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Athene cunicularia burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low (winter foraging)	Formerly a common breeder from coastal bluffs to foothills in Goleta area, now only an occasional winter visitor. No suitable habitat onsite due to the ongoing disturbance, lack ground squirrel burrows, and the site is fragmented and isolated from other foraging areas by development and infrastructure. Recent CNDDB (2004, 2006) Goleta overwintering records. Possible sighting by City staff west of Los Carneros Road in 2008. No CNDDB records within 5 miles.
Contopus cooperi olive-sided flycatcher	None/None G4/S4 SSC	Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir & lodgepole pine. Most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain.	None	Suitable habitat not present on site.
Elanus leucurus white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Low (foraging)	Observed foraging on-site in 2010 (City of Goleta, 2011) and to the west of Los Carneros Road (City of Goleta 2014). White-tailed kites are commonly observed at the Santa Barbara Airport, and are documented as nesting at Lake Los Carneros. Not documented by CNDDB in the Project vicinity. Known roosts at Lake Los Carneros. Breed in oak woodlands and trees, which are not present on the project site. Eucalyptus windrow trees adjacent to the project site not suitable for roosting since subject to ongoing disturbance by US 101 and UPRR. Cyclically fluctuating depending on prey population

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Gavia immer common loon	None/None G5/S1 SSC	Nesting locations at certain large lakes and reservoirs in interior of state, primarily in northeastern plateau region. Bodies of water regularly frequented are extensive, fairly deep, and produce quantities of large fish.	None	Suitable habitat not present on site.
Haliaeetus leucocephalus bald eagle	FD/SE G5/S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	None	Suitable habitat not present on site.
Passerculus sandwichensis beldingi Belding's savannah sparrow	None/SE G5T3/S3	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in Salicornia on and about margins of tidal flats.	None	Suitable habitat not present on site.
Pelecanus occidentalis californicus California brown pelican	FD/SD G4T3T4/S3 FP	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	None	Suitable habitat not present on site.
Rallus obsoletus levipes light-footed Ridgway's rail	FE/SE G5T1T2/S1 FP	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on molluscs and crustaceans.	None	Suitable habitat not present on site.
Riparia riparia bank swallow	None/ST G5/S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	None	Project vicinity CNDDB records are historical (1913, 1927). Suitable nesting habitat not present on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Sternula antillarum browni California least tern	FE/SE G4T2T3Q/S2 FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	None	Suitable habitat not present on site.
Strix occidentalis occidentalis California spotted owl	None/None G3G4T2T3/ S3 SSC	Mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods. Canopy closure >40%. Most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	None	Suitable habitat not present on site.
Vireo bellii pusillus least Bell's vireo	FE/SE G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	None	Suitable habitat not present on site, off-site willow thickets are isolated. No CNDDB records within 5 miles. No eBird records in the Goleta Valley or the South Coast. There are only two breeding season records for the south coast in recent decades. One of these, from the Santa Barbara MunicipalAirport, involved a bird that was singing in willows along Los Carneros Creek in Goleta Slough, May 18–June 10, 2005 (City of Santa Barbara, 2015). No additional birds were detected that year, and the bird was not detected later in the season, despite additional visits. Mammal.
Mammals				
Antrozous pallidus pallid bat	None/None G5/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low (foraging)	No CNDDB records within 5 miles. Marginally suitable foraging habitat on-site. Off-site woodland adjacent to railroad and US 101 is not suitable.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Corynorhinus townsendii Townsend's big-eared bat	None/None G3G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Low (foraging)	CNDDB Record (1985) suitable habitat not present on site. Marginally suitable foraging habitat on site.
Eumops perotis californicus western mastiff bat	None/None G5T4/S3S4 SSC	Occurs in open, semi-arid to arid habitats, including coniferiferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground.	Low (foraging)	No CNDDB records within 5 miles. Roosting habitat not present. Marginally suitable foraging habitat on site.
Lasiurus blossevillii western red bat	None/None G5/S3 SSC	Roosts in trees in forests and woodlands of varying elevations. Forages in grasslands, shrublands, open woodlands and forests, and agriculture. Typically found in riparian habitats, does not occur in deserts.	Low (foraging)	No CNDDB records within 5 miles. Suitable roosting and not present on site. May forage on-site.
Neotoma lepida intermedia San Diego desert woodrat	None/None G5T3T4/ S3S4 SSC	Occurs in scrub habitats of southern California from San Luis Obispo County to San Diego County.	Low (foraging)	No CNDDB records within 5 miles. Not observed during surveys. Project site lacks suitable habitat such as rock outcrops preferred by this species for nest structures, and medium to dense foliage in the xeric grassland/scrub areas. Prefers xeric sites, not likely present in the adjacent Los Carneros Creek or Wetland.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Sensitive Natural Communities				
Southern California Steelhead Stream	None/None GNR/SNR		None	Habitat not on site.
Southern Coastal Salt Marsh	None/None G2/S2.1		None	Habitat not on site.
Southern Vernal Pool	None/None GNR/SNR		None	Habitat not on site.

Status (Federal/State)
FE = Federal Endangered
FT = Federal Threatened
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
SR = State Rare
SCE = State Candidate Endangered
SE = State Endangered
ST = State Threatened

CRPR (CNPS California Rare Plant Rank)
1B = Rare, Threatened, or Endangered in California and elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere
4 = Limited Distribution (Watch List)

CRPR Threat Code Extension
.1 = Seriously endangered in California (>80% of occurrences threatened/ high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/ moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/ low degree and immediacy of threat)

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City of Goleta
Planning and Environmental Review
Attn: Mary Chang
130 Cremona Drive, Suite B
Goleta, CA 93117

August 11, 2020

RE: Heritage Ridge Project (Case No. 14-049-GPA-VTM-DP) — Environmentally Sensitive Habitat Biological Survey and Mapping

Dear Ms. Chang,

The applicant for the Heritage Ridge Project hired Watershed Environmental, Inc. to survey and map the current edge of Environmentally Sensitive Habitat (ESH) along a segment of Los Carneros Creek adjacent to (north of) the northeast corner of the Heritage Ridge project. The aim was to determine the location of the City-required 100-ft.-wide Streamside Protection Area (SPA) from the outer edge of ESH. This letter report presents the results of our survey and provides information to support the applicant's formal request that the SPA width be reduced for this project.

Watershed Environmental biologist Mark de la Garza and environmental/GIS analyst Dominick Burnham surveyed a 1.5-acre area on July 9, 2020 between 10:00-11:00 am. We were on foot and used field notes to record the plant species we observed. Vegetation and land cover types were mapped in the field on a high-resolution aerial photograph obtained from Google Earth and printed at a 50-ft.=1-in. scale. The outer edge of the arroyo willow tree riparian canopy (aerial extent) was measured at regular 40-ft. intervals from the Union Pacific Railroad tracks.

The arroyo willow riparian vegetation along Los Carneros Creek meets the criteria in the City's General Plan/Coastal Land Use Plan, Conservation Element[1] to be classified as ESH. The City of Goleta identified and mapped a portion of the ESH in its 2009 Conservation Element. Figure 1 depicts the current extent of arroyo willow environmentally sensitive riparian woodland habitat as surveyed by Watershed Environmental, along with what the City had mapped. This figure also depicts the extent and location of the City-required 100-ft.-wide SPA from the ESH we mapped in our July 9, 2020 survey.

Conservation Element Policy CE 2.2 establishes SPAs along most creeks in the City of Goleta, including Los Carneros Creek. The stated purpose of this policy is: *"to preserve the SPA in its natural state in order to protect the associated riparian habitats and ecosystems."* This policy goes on to state:

a. *The SPA upland buffer shall be 100 feet outward on both sides of the creek, measured from the top of the bank or the outer limit of wetlands and/or riparian vegetation,*

[1] **City of Goleta.** 2009. Goleta General Plan/Coastal Land Use Plan, Conservation Element. City of Goleta, California. Available online at: https://www.cityofgoleta.org/home/showdocument?id=4071.

whichever is greater. The City may consider increasing or decreasing the width of the SPA upland buffer on a case-by-case basis at the time of environmental review. The City may allow portions of a SPA upland buffer to be less than 100 feet wide, but not less than 25 feet wide, based on a site specific assessment if (1) there is no feasible alternative siting for development that will avoid the SPA upland buffer; and (2) the project's impacts will not have significant adverse effects on streamside vegetation or the biotic quality of the stream.

b. *If the provisions above would result in any legal parcel created prior to the date of this plan being made unusable in its entirety for any purpose allowed by the landuse plan, exceptions to the foregoing may be made to allow a reasonable economic use of the parcel, subject to approval of a conditional use permit.*

A Draft Environmental Impact Report (DEIR) was prepared in June 2016 for the Heritage Ridge Project[2]. The DEIR concluded that no environmentally sensitive riparian habitat or sensitive plant communities exist on the project site and that the project will not have significant adverse effects on Los Carneros Creek streamside vegetation or the stream's biotic quality. The DEIR also determined that a buffer of less than 100 ft. is adequate, since reduced buffer (i.e., 90 ft. from the edge of riparian vegetation) would not have a substantially adverse effect on the creek's functions and values. This is because: 1) the Union Pacific Railroad tracks hydrologically separate the project site from the creek and 2) no habitable structures are proposed within 100 ft. of the edge of riparian vegetation.

During our July 9, 2020 survey, we identified and mapped the following vegetation and land cover types in the 1.5-acre study area. Attachment 1 contains photos of the study area.

Arroyo Willow Riparian Woodland: Banks of Los Carneros Creek north of the Heritage Ridge property between the 101 Freeway and the train tracks. At the time of our survey, there were several homeless encampments in this area and some of the vegetation had recently burned. Vegetation growing here is dominated by arroyo willow *(Salix lasiolepis)* trees. Understory species include: cape ivy *(Delairea odorata)*, hoary nettle *(Urtica dioica* subsp. *holosericea)*, poison oak *(Toxicodendron diversilobum)*, giant reed *(Arundo donax)*, and blue elderberry *(Sambucus nigra* subsp. *caerulea)*.

Blue Gum Eucalyptus Woodland: North side of the train tracks north of the Heritage Ridge property and west of the arroyo willow riparian woodland vegetation. This vegetation type consists only of blue gum eucalyptus *(Eucalyptus globulus)*. The woodland does not contain any understory vegetation.

Disturbed/Ruderal: Within the railroad right-of-way along both sides of the train tracks north of the Heritage Ridge property. The vegetation in this area is managed by the Union Pacific Railroad Company and at the time of our survey was sparsely vegetated with non-native herbaceous species: poison hemlock *(Conium maculatum)*, black mustard *(Brassica nigra)*, castor bean *(Ricinus communis)*, bristly ox tongue *(Helminthotheca echioides)*, fennel *(Foeniculum vulgare),* smilo grass *(Stipa miliacea* var. *miliacea),* wild oat *(Avena fatua),* fountain grass *(Pennisetum setaceum),* prickly lettuce *(Lactuca serriola),* and curly dock *(Rumex crispus)*. The only native plant species in this area were a few scattered coyote bush *(Baccharis pilularis* subsp. *consanguinea),* greenspot nightshade *(Solanum douglasii),* and datura *(Datura wrightii).*

[2] **City of Goleta.** June 2016. Heritage Ridge Residential Project Draft Environmental Impact Report SCH# 2015041014. City of Goleta, California. Available online at: https://www.cityofgoleta.org/city-hall/planning-and-environmental-review/ceqa-review/heritage-ridge.

Coyote Brush Scrub: A narrow band on the south side of the railroad right-of-way and along the northern property line of the Heritage Ridge property. This vegetation type consists only of coyote bush *(Baccharis pilularis* subsp. *consanguinea)*.

Union Pacific Railroad Tracks & Railway Bed: This land cover type exists within the railroad right-of-way north of the Heritage Ridge property and includes the steel railroad tracks, gravel railroad bed, and wooden railroad ties.

Our July 9, 2020 survey determined that the current extent of the environmentally sensitive arroyo willow riparian habitat north of the Heritage Ridge project site and north of the Union Pacific Railroad right-of-way is more extensive (wider) than the area mapped by the City of Goleta in 2009 (refer to Figure 1). Based on the current extent of the riparian vegetation, the 100-ft.-wide SPA also extends slightly further onto the Heritage Ridge property than the 10 ft. identified in the 2016 Draft Environmental Impact Report. Approximately 9,250 sq. ft. (0.21 acre) of the Heritage Ridge property is within the SPA area measured 100 ft. from the outer edge of the current arroyo willow riparian canopy.

It is my professional opinion—even with this slight change in the size of the arroyo willow riparian canopy and the associated SPA—that the DEIR's finding that *"the project will not have a substantially adverse effect on the functions and values of Los Carneros Creek"* is still valid because the project is physically and hydrologically separated from the creek by the Union Pacific Railroad. The only development that will occur within the SPA is a sound wall, creation of paved vehicle parking spaces, and landscaping. Furthermore, the 8-ft. tall sound wall that will be constructed along the north, eastern and western perimeter of the Heritage Ridge project will function as a physical barrier preventing domestic pets (cats and dogs) owned by residents from entering the train tracks and adjacent riparian woodland, and will also prevent invasive plant species that exist in the railroad right of way and riparian woodland from spreading into the residential development.

The railroad right-of-way segment between Los Carneros Creek and the Heritage Ridge project is a major transportation corridor and as such, it provides very limited, poor quality wildlife habitat. Its existence adjacent to the creek fragments the riparian woodland habitat growing on the creek banks, and eliminates the possibility of preserving the natural state of the SPA adjacent to the project site. Based on my review of the project plans and the results of our July 9, 2020 survey, I concur with the findings in the DEIR that the project will not have a significant adverse effect on streamside vegetation or the stream's biotic quality. I support the applicant's request to reduce the width of the SPA.

Sincerely,

Mark de la Garza
Environmental Scientist
Watershed Environmental, Inc.

cc: Jaren Nuzman

Attachment 1: Photographs of Study Area

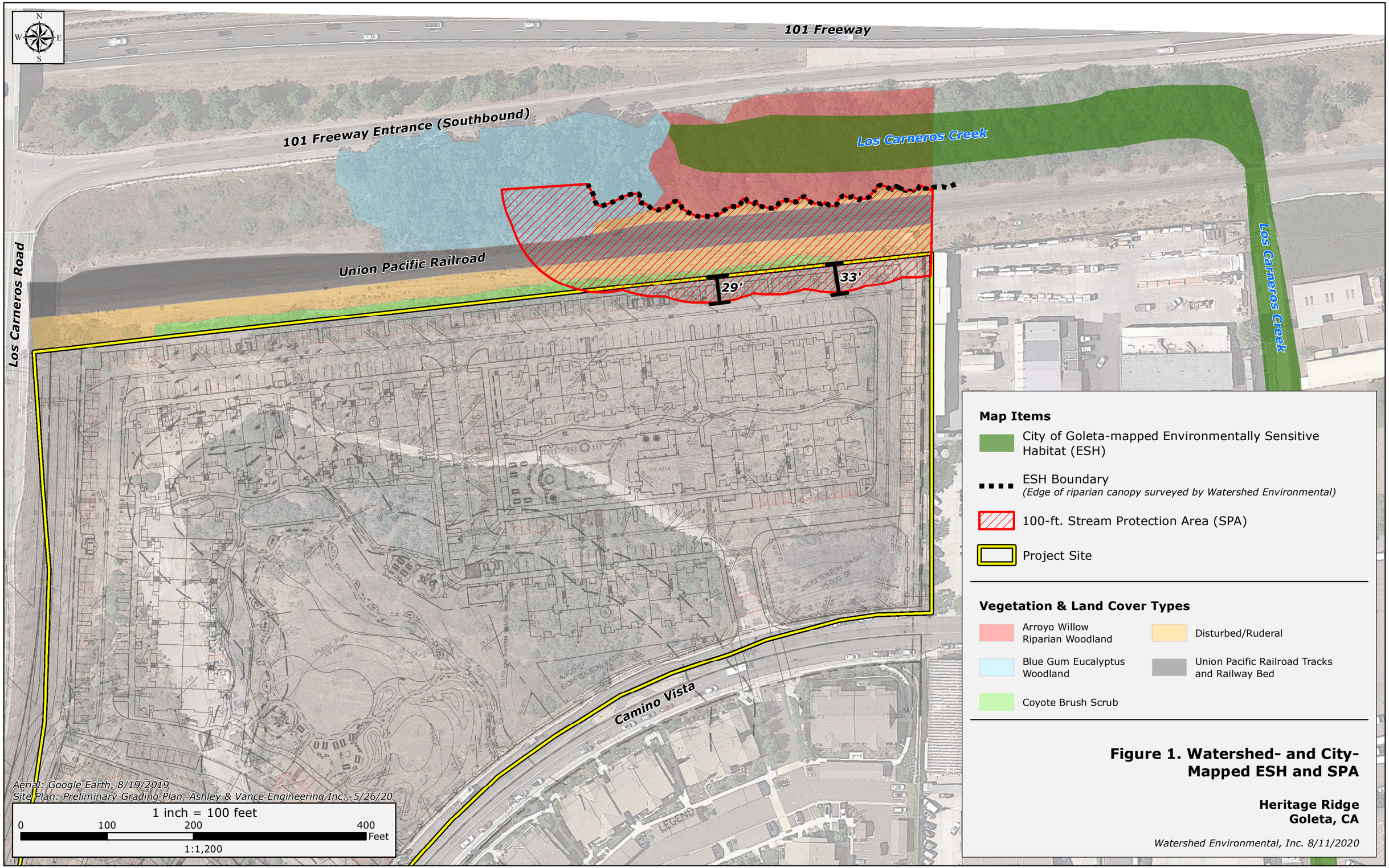

Figure 1. Watershed- and City-Mapped ESH and SPA

Heritage Ridge
Goleta, CA

Watershed Environmental, Inc. 8/11/2020

Attachment 1.

Photographs of Study Area

	Photo 1. Outer edge of the arroyo willow riparian canopy, north of the train tracks looking east. (photo taken 7/9/2020)
	Photo 2. Outer edge of the arroyo willow riparian canopy, north of the train tracks looking west. (photo taken 7/9/2020)
	Photo 3. Disturbed/ruderal vegetation and narrow band of coyote brush scrub on the south side of the railroad right-of-way and along the northern property line of the Heritage ridge project. (photo taken 7/9/2020)

Photo 4. Disturbed/ruderal vegetation and narrow band of coyote brush scrub on the south side of the railroad right-of-way and along the northern property line of the Heritage ridge project. (photo taken 7/9/2020)

Photo 5. Blue gum eucalyptus woodland on the north side of the train tracks and west of the arroyo willow riparian woodland vegetation. (photo taken 7/9/2020)

Photo 6. Disturbed/ruderal vegetation on the south side of the railroad right-of-way and along the northern property line of the Heritage ridge project. (photo taken 7/9/2020)

Biological Resource Assessment
Heritage Ridge Residential Project
APNs: 073-060-031 through 073-060-043
Goleta, Santa Barbara County, California

Prepared for:
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

Prepared by:
Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, CA 93003

May 2016

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EXECUTIVE SUMMARY

This report documents the biological resources on the Heritage Ridge Project site. Section 4.3 of the Envirometnal imapct Report (EIR) evaluates potential impacts to sensitive resources based on current project plans. The proposed project involves the development of 360 residential units in eight buildings, as well as two additional recreational buildings within the City of Goleta. No change to the underlying land use and zoning designation is proposed, but amendments to General Plan Figures 3-5 and 4-1 (Open Space and Conservation Elements) are required to remove an Environmentally Sensitive Habitat Area (ESHA) designation of Coastal Sage Scrub that does not occur on the property. The vacant site has undergone grading a disturbance since at least 1986, and is surrounded by residential land uses, with Willow Springs I & II to the east, the Village at Los Carneros to the west, and The Union Pacific Railroad (UPRR) and U.S. Highway 101 to the north. Pursuant to CEQA Guidelines § 15150, this report incorporates by reference the Willow Springs II EIR (City of Goleta, 2012; State Clearinghouse No. 2010031059).

Construction and grading is proposed entirely within the existing disturbed areas, and would not require displacement of any intact native habitat. Coastal sage scrub ESHA is mapped onsite, but does not occur and the designation is proposed for removal. No special status species have a moderate or high potential to occur on-site. The Project site hosts low-quality foraging habitat for birds and bats. A local wildlife linkage has been observed on the site between habitat to the north of U.S. Highway 101 and the Los Carneros Wetland.

1.0 INTRODUCTION

Rincon Consultants, Inc. has prepared this biological resources assessment to document the existing conditions and special status resources present at Heritage Ridge Residential Project in the City of Goleta (City), Santa Barbara County, California. The proposed project involves the development of 360 residential units in eight buildings, as well as two additional recreational buildings within the City of Goleta. No change to the underlying land use and zoning designation is proposed, but amendments to General Plan Figures 3-5 and 4-1 (Open Space and Conservation Elements) are required to remove an Environmentally Sensitive Habitat Area (ESHA) designation of Coastal Sage Scrub that does not occur on the property. For a detailed project description, refer to the Environmental Impact Report (EIR) Section 2.0, *Project Description*. It should be noted that during the development of the Willow Springs I and II projects located adjacent to the south, the project site was previously referred to as "North Willow Springs."

1.1 PROJECT LOCATION

The Project is located at a currently vacant site (APNs 073-060-031 through 073-060-043), comprised of lots 1 through 13 of Tract No. 13646 in the City of Goleta, County of Santa Barbara, California, as shown in Figure 1. The project site is northeast of Calle Koral, north of Camino Vista, and east of S. Los Carneros Road. The project site is bounded on the north by the Southern Pacific Railroad. The U.S. Highway 101 southbound on-ramp from S. Los Carneros Road is immediately north of the railroad, approximately 300 feet north of the project site boundary. The project site is bounded by S. Los Carneros Road to the west; industrial business to the east; and Camino Vista and residential uses (Willow Springs I &II) to the south. The project is located at latitude 34.435834 and longitude -119.851159 (NAD83), and is depicted on the

Goleta, California, United States Geological Survey (USGS) 7.5-minute topographic quadrangle, within Township 4 North and Range 28 West.

1.2 SITE BACKGROUND

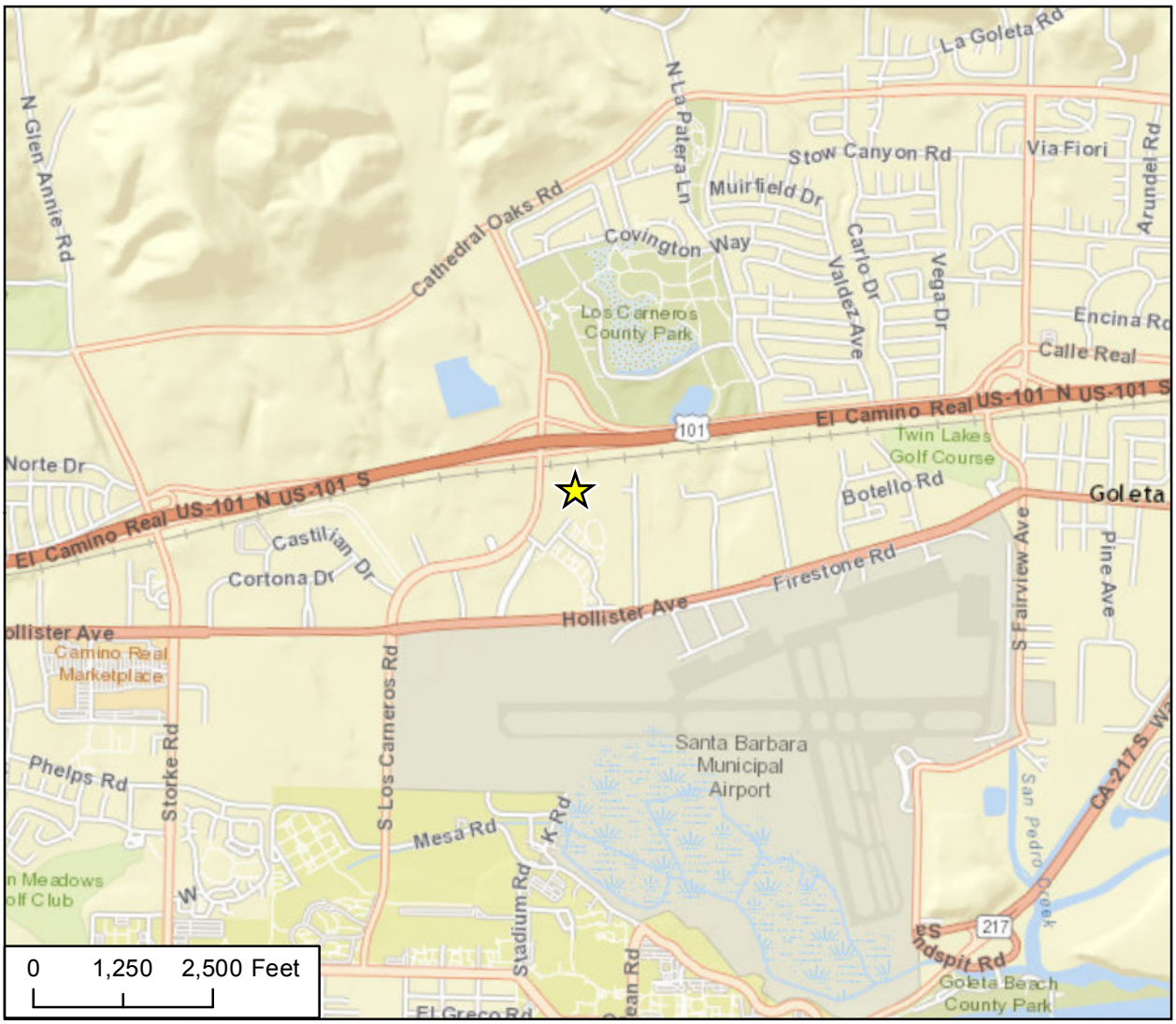
Historically, the project site and vicinity were in agricultural production. Before 1928, the project area was used for agriculture and grazing. An archaeologically sensitive site has been documented directly south of the project site. This prehistoric archaeological site was originally recorded by David Banks Rogers (1929). Based on the excavation of 46 trenches, Rogers characterized the very dense archaeological deposits associated with a village site resulted in a determination that the on-site archaeological deposits were eligible for listing on the National Register of Historic Places. The boundary of the archaeological area, generally in the center of the project site, and a 50-foot buffer have been fenced to ensure that no disturbance to the resource occurred during placement of stockpile soils outside of this area.

In 1986, a mass grading plan for the entire site was submitted, approved, and initiated (Mac Design Associates, 1997). Initial grading on-site consisted of clearing and grubbing of orchard trees and root structures. Surface material was scraped and placed in windrows. Investigations of prehistoric cultural resources were undertaken and grading resumed outside of fenced sensitive archaeological areas (Mac Design Associates, 1997). The Project site was used as a staging area for fill during the Los Carneros Road/Highway 101 interchange construction (Mac Design Associates, 1997). Ongoing activity associated with two stockpile permits first issued in 2002 avoided the fenced archaeological area and 50-foot buffer.

Today, the Project site consists of 13 undeveloped lots located between developed commercial and industrial development to the east and undeveloped vacant land to the west. There is no structural development; however, there are pieces of construction equipment and containers stored on site.

The Project site is relatively flat to gently sloping with the exception of the moderately steep slopes that define the boundary of the stockpile soils along the perimeter of the archaeological area and the eastern, western, northern, and southwestern property lines. Topography within the archaeological area is characterized by a modest ridge that trends generally northwest to southeast between 25 and 36 feet above mean sea level (AMSL). Low-lying level soils drain generally to the south. Soil stockpiling has resulted in elevating surrounding topography to over 43 feet AMSL. As a result, the central portion of the site has the highest elevations on the property and forms a ridge that divides the site drainage, with approximately half of the site draining in a westerly direction and half of the site draining in an easterly direction from the higher, center portion of the site. Ultimately, all runoff from the site drains through existing storm drains and into a 7.25-acre treatment wetland located on the Willow Springs property to the south. Runoff entering the treatment wetland drains across 500 feet (storm drain “A”) and 950 feet (storm drain “C”) of wetland vegetation before leaving the Willow Springs property at Hollister Avenue.

Pursuant to CEQA Guidelines § 15150, this report incorporates by reference the Willow Springs II EIR (City of Goleta, 2012; State Clearinghouse No. 2010031059).



Imagery provided by ESRI and its licensors © 2015.

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Project Location

Regional Location

Figure 1

2.0 METHODOLOGY

2.1 REGULATORY OVERVIEW

Regulated or sensitive resources studied and analyzed herein include special status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees.

2.1.1 Environmental Statutes

Biological resources are generally regulated by the following statutes:

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGC)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- City of Goleta General Plan/Coastal Land Use Plan (updated November, 2009) (General Plan)

2.1.2 Guidelines for Determining CEQA Significance

Determination of impacts is done on a project-by-project basis. Because of the complexity of biological resource issues, substantial variation can occur between projects. Impact assessment must account for both short-term and long-term impacts. Impacts are classified as significant or less than significant, depending on the size, type, and timing of the impact and the biological resources involved. Disturbance to habitats and/or species are considered significant if they substantially affect significant biological resources using the CEQA Checklist and City thresholds discussed below.

CEQA Checklist. The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist are used to evaluate potential environmental effects. Refer to Section 4.3 of the EIR for an analysis of Project impacts to biological resources. Based on these criteria, the Project would have a significant effect on biological resources if it would:

a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc…) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

City of Goleta Environmental Thresholds Manual. The City's adopted Environmental Thresholds and Guidelines Manual provides environmental thresholds specific to biological resources. This manual primarily uses Appendix G of the State CEQA Guidelines for its criteria.[1]

a) substantially reduces or eliminates species diversity or abundance;
b) substantially reduces or eliminates quantity or quality of nesting areas;
c) substantially limits reproductive capacity through loss of individuals or habitat;
d) substantially fragments, eliminates, or otherwise disrupts foraging areas and/or access to food sources;
e) substantially limits or fragments the geographic range or dispersal routes of species; or
f) substantially interferes with natural processes, such as fire or flooding, upon which the habitat depends.

Impacts to biological resources may be considered less than significant where there is little or no importance to a given habitat and where disturbance would not create a significant impact. For example, disturbance to cultivated agricultural fields, or small acreages of nonnative, ruderal habitat, would be considered less than significant.

2.2 LITERATURE REVIEW

Rincon staff reviewed literature for baseline information on biological resources potentially occurring at the Project site and in the surrounding area. The literature review included information available in peer reviewed journals, standard reference materials (e.g., Bowers et al. 2004; Burt and Grossenheider, 1980; Holland, 1986; Baldwin et al. 2012, Sawyer et al. 2009; Stebbins, 2003; Oberhauser, 2004; American Ornithologists Union, 2014; United States Army Corps of Engineers, 2008 and 2014). Site-specific reports were reviewed, including the *Technical Review of Coastal Sage Scrub (CSS) Environmentally Sensitive Habitat Area (ESHA) for the North Willow Springs Project* (Dudek, 2014a), *Wildlife Corridor Analysis for the Heritage Ridge Project* (Dudek, 2014b), and the *Preliminary Landscape Plan, Heritage Ridge* (True Nature, 2014). Rincon also conducted a review of relevant databases of sensitive resource occurrences from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base

[1] The City's CEQA thresholds reference the Appendix G thresholds published in 1992, when the City's Threshold were adopted by the County Board of Supervisors. This BRA includes the Appendix G thresholds published in 2014.

(CNDDB) (CDFW, 2015a) and Biogeographic Information and Observation System (CDFW, 2015b); the U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS, 2015a), National Wetlands Inventory Wetlands Mapper (USFWS, 2015b), and Information, Planning and Conservation System (USFWS, 2015a); the United States Department of Agriculture, Natural Resource Conservation Service Web Soil Survey (United States Department of Agricultural, Natural Resources Conservation Service, 2015); and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS, 2015). The General Plan, and City of Goleta CEQA Guidelines (2014) were also reviewed. Other sources of information about the site included aerial photographs, topographic maps, geologic maps, climatic data, and project plans. The Rare Plants of Santa Barbara County list was also reviewed (Central Coast Center for Plant Conservation, 2005). Previous biological studies for projects occurring in the region, including the *Hollister/Kellogg Park and the Armitos to Hollister Avenue Creek Path Biological Resource Assessment* (Rincon, 2013), *Cavaletto Tree Farm Housing Project Final Environmental Impact Report* (County of Santa Barbara, 2011), *Willow Springs II Final Environmental Impact Report* (City of Goleta, 2012), *Village at Los Carneros Project Final Environmental Impact Report* (City of Goleta, 2014a), *Cortona Apartments Final Environmental Impact Report* (City of Goleta, 2014b), the *Biological Resources Report for the Ekwill Street and Fowler Road Extension Project* (URS, 2014), and the *Goleta Slough Mouth Management Biological Technical Report* (Rincon, 2015) were reviewed for pertinent information of special status biological resources occurring in the region.

2.3 FIELD RECONNAISSANCE SURVEY

Rincon biologists conducted a vascular plant survey; wildlife observations; vegetation mapping; and a search for rare, threatened, and endangered species, sensitive natural communities, and potential jurisdictional resources on three separate occasions from March through June 2015. Surveys were conducted on foot and covered the Project site and a 100-foot buffer surrounding the Project site. Wildlife species were identified by direct observation, vocalization, or by sign (e.g. tracks, scat, burrows).

Dudek biologists visited the site on January 22, 2014 and conducted an ESHA analysis of the Project site and vicinity. Dudek biologists also visited the site on five separate occasions in January and February 2013; and on four occasions from February through April 2014 to assess of the condition and quality confirm existing biological conditions; search for wildlife species, sign and tracks, and travel routes; and perform nocturnal spotlighting surveys. The site was also surveyed by Envicom in 2010 and Dudek 2008 as part of the Willow Springs II permitting process (City of Goleta, 2011).

An inventory of native plant and animal species observed during the site visit was compiled, and an evaluation of potential jurisdictional features was performed. Where applicable, native vegetation communities were classified according to Sawyer et al. (2009), and cross-referenced with Holland (1986).

3.0 EXISTING CONDITIONS

This section provides a brief discussion of the existing conditions observed on-site and in the Project vicinity. For further details refer to Section 3.0 of the EIR, *Environmental impact Analysis*. Site photographs are located in Appendix C and a compendium of and animal species and native plant observed is located in Appendix D.

3.1 PHYSICAL CHARACTERISTICS

Within Goleta, much of the coastal plain between the Santa Ynez Mountains and Pacific Ocean is developed or has been historically disturbed by agriculture or ranching uses. Native vegetation within Goleta is fragmented, but includes riparian and upland woodlands, coastal scrub, native and non-native grasslands, wetlands and vernal pools. Relatively undisturbed habitats are present along narrow riparian corridors, in scattered undeveloped lands of varying sizes, and in protected open space areas.

The site is within the Santa Ynez – Sulphur Mountains subsection of the Southern California Coast of the U.S. Department of Agriculture Forest Service ecoregion system (USDA Forest Service 2014). This ecological subunit extends from the Santa Ynez River mouth in northern Santa Barbara County, south and east into the Sulphur Mountains just west of the Ventura River in northern Ventura County (USDA Forest Service 2014). This ecological unit is generally defined by its mountainous topography inland, with coastal plains at the immediate coast. Locally, the Santa Ynez Mountains to the north of the site form relatively steep hillsides vegetated by native chaparral and drained by incised streams along which grow bands of riparian shrubs and woodlands. The Project site is located within the South Coast region of Santa Barbara County on a coastal plain, along the south edge of the western Transverse Range Mountains. The site is within the South Coast subregion of the Jepson ecoregion system, which extends from Point Conception to the west southward to Mexico, along the immediate coast in Santa Barbara County, but also extending inland to the San Gabriel and San Bernardino mountains farther east and south (Baldwin et al. 2012). The Pacific Ocean is approximately 1.5 miles to the south and the Santa Ynez Mountains begin approximately 1.2 miles to the north.

The ocean is directly adjacent to the Santa Ynez Mountains (with elevations surpassing 4,000 feet), which forces air masses upward. When moist air is pushed up by the mountains, the orographic effect causes increased precipitation along the South Coastal plain. Annual precipitation in Goleta is typically about 16.3 inches, with the majority of rainfall received between November and April in typical years (Western Region Climate Center 2015). Mean annual temperatures range from 48 to 69 degrees Fahrenheit (°F). Summer daytime temperatures are often modified by morning fog and sea breezes. The growing season lasts 340 to 360 days per year (USDA NRCS, 2015).

3.1.1 Watershed and Drainages

The Project is within the 47.4-square mile Goleta Slough Watershed, which is fed by five major streams: Atascadero, San Pedro, and San Jose Creeks (meet “upstream” and north of the slough mouth) and Los Carneros and Tecolotito Creeks (meet further downstream west of the slough). Not all the tributary creeks are equally important to the functioning of the slough. Atascadero (Maria Ygnacio is part of the Atascadero system), San Jose and San Pedro enter the slough on its extreme eastern edge, within a few hundred meters of the mouth, and have little influence on slough conditions during most of the year. In contrast, Tecolotito and Los Carneros, although smaller streams, enter on the northwest corner and waters, along with tidal inflows, that determine water quality for much of the wetland (Leydecker, 2006).

Lake Los Carneros is a historic man-made duck pond built in 1936, located north of U.S. Highway 101, approximately 1,300 feet north of the project site. The lake is part of a 136-acre County park.

The Goleta Slough begins 1,200 feet south of the Project between Hollister Avenue and the Pacific Ocean. The Goleta Slough is a large expanse of open water and estuarine/wetland habitats that supports a rich and diverse coastal ecosystem of biological and cultural importance, and provides important ecosystem services such as floodwater storage capacity and the filtering of pollutants contained within stormwater runoff. The Goleta Slough is the northernmost example of a large southern California estuary and represents the northern limit of distribution for several plant and animal species. The Slough contains breeding populations of listed species such as the State listed as endangered Belding's savannah sparrow *(Passerculus sandwichensis beldingi*) and the federally listed as endangered tidewater goby (*Eucyclogobius newberryi*) as well as other species of federal, state, and local concern.

Intermittent Los Carneros Creek flows approximately 90 feet to the north of the Project parallel to the U.S. Highway 101, and then into an open, concrete-lined channel 450 feet to the east of the Project (beyond Aero Camino). It then flows from Lake Los Carneros Park, to a culvert under U. S. Highway 101, and is diverted in a concrete channel for 0.41 mile until it confluences with Tecolotito Creek and flows into the Goleta Slough, from whence its waters flow to the Pacific Ocean. The San Pedro Creek watershed (HUC 180600130202) includes San Pedro, San Jose, Los Carneros, and Tecolotito Creeks and their tributaries, and drains approximately 27.6 square miles. Tecolotito and Los Carneros Creeks had channel realignment projects implemented in 2006 as part of the airport expansion (County of Santa Barbara 2010). Compared with Tecolotito Creek, Los Carneros Creek is less developed and has fewer commercial or residential areas within its watershed (Leydecker, 2006).

The seven acre Los Carneros Wetland is located to the south between the Willow Springs I development and Hollister Avenue, beginning approximately 80 feet from the southern corner of the Project. Between Willow Springs I and II is an oval-shaped private open space preserve area, which is landscaped with a combination of ornamental and native species.

3.1.2 Soils

The Project site has undergone disturbance and import of fill, as discussed under Section 1.2*, Project Background*. Soils in the Project site are mapped as Goleta fine sandy loam, 0% to 2% slopes, Milpitas-Positas fine sandy loam, 2% to 9% slopes, and Xerorthents cut and fill areas (NRCS, 2015).

3.2 VEGETATION

Where applicable, classification on natural comminutes (Alliances and Associations) is based on the Manual of California Vegetation (Sawyer et. al., 2009). Numbers in brackets following natural communities correspond with the codes in the Manual of California Vegetation. This classification system is used by CNPS and CDFW to map, classify and establish the significance and rarity of vegetation types in California. Alliances and associations are defined by plant species composition and abundance, as well as the underlying abiotic characteristics of the stand (e.g., slope, aspect or soil type).

The following communities are present on site, as shown in Figure 2.

***Baccharis pilularis* (Coyote brush scrub) Alliance [32.060.00]**
The Manual of California Vegetation (2009) describes this community as occurring in river mouths, stream sides, terraces, stabilized dunes of coastal bars, spits along the coastline, coastal bluffs, open slopes, and ridges, although the species is upland. Elevations range from sea level to approximately

4,900 feet AMSL. Stands in southern California tend to be largely seral to other scrub and woodland types. *B. pilularis* mixes with shrubs with southern affinities (*Artemisia californica, Encelia californica, Eriogonum fasciculatum, Salvia leucophylla, S. mellifera*). On the south coast, *Baccharis pilularis* alliance appears as more disturbance related.

Coyote brush scrub at the site is a relatively open stand dominated by coyote brush with an understory of non-native grasses and forbs. The shrub layer consists almost exclusively of coyote brush, and biological diversity is low. California sagebrush is present, but at less than one percent of the total shrub cover. There are no other sage species present (i.e., species of the genus *Salvia* or *Artemisia*). Commonly-occurring species in the understory herbaceous layer include sweet fennel (*Foeniculum vulgare*), pampas grass (*Cortaderia jubata*), short-podded mustard (*Hirschfeldia incana*), scarlet pimpernel (*Anagallis arvensis*), Harding grass (*Phalaris aquatica*), filarees (*Erodium* spp.), ripgut brome (*Bromus diandrus*), rattail fescue (*Vulpia myuros*), and soft chess (*Bromus hordeaceous*).

Coyote brush is an early colonizer of disturbed areas. The coyote brush scrub on-site has become established in a slight depression, since this area was last mass graded. Due to the Project site's long history of agricultural use and grading, the coyote brush scrub contains low native species diversity, is infested by invasive species, and has lower overall biological value as compared to coyote brush scrub in a less-disturbed condition. Based on these characteristics, this community is not an example of intact coastal sage scrub that would qualify as ESHA. For further discussion refer to Section 4.3 of the Environmental Impact Report and Appendix D, *Technical Review of Coastal Sage Scrub (CSS) Environmentally Sensitive Habitat Area (ESHA) for the North Willow Springs Project*.

***Atriplex lentiformis* Shrubland (Quailbush Scrub) Alliance [36.370.00]**
The Manual of California Vegetation (2009) describes this community as occurring on gentle to steep southeast- and southwest-facing slopes. Elevations range from sea level to approximately 557 feet asml. The alliance especially occurs in disturbed areas, including roadsides and fluvial areas with alkaline soils. Atriplex lentiformis is dominant in the shrub canopy with *Artemisia californica, Atriplex canescens, Baccharis pilularis, Baccharis salicifolia ssp. salicifolia, Encelia californica, Kochia americana, Malosma laurina, Pluchea sericea, Rhus integrifolia, Sporobolus airoides, Suaeda taxifolia* and *Tamarix* spp. Emergent trees may be present at low cover, including *Myoporum laetum* or *Prosopis glandulosa*.

The community on-site is comprised almost exclusively of common disturbance following native species and non-native invasive species. As is typical with most vegetation maintained in a ruderal condition by frequent disturbance, this vegetation type within Project site does not directly fit into the CDFW plant community classification system. The shrub layer of community on-site is dominated by quailbush, with codominant coyote brush. The understory is dominated by mustard and other non-native annuals. An emergent red willow trees is present in the southeast corner. The on-site community is characterized as ruderal scrub rather than a natural community, but is described as quailbush scrub for the purposes of classification. Quailbush and coyote brush are known initial colonizers after disturbances (i.e., grading), and native plant diversity and structure within the community is low. The Quailbush scrub is established on fill material, presumably since this area of the site was last mass graded. Quailbush scrub is not considered sensitive by CDFW, and is not classified as coastal sage scrub.

***Bromus* (*diandrus*, *hordeaceus*)-*Brachypodium distachyon* Herbaceous Semi-Natural Alliance [42.026.00]** This semi-natural stand is found in all topographic settings in foothills, waste places, rangelands, openings in woodlands. Elevations range from sea level to approximately 7,200 feet asml.

On-site areas mapped as non-native grasses and forbs consist overwhelmingly of introduced nonnative species, with native species poorly represented. Ripgut brome, summer and black mustard, smilo grass (*Stipa miliacea*),), soft chess, and foxtail barley (*Hordeum murinum*) are prevalent. Other selected non-native species occurring in notable quantities are long-beaked filaree (*Erodium botrys*), bristly ox-tongue (*Helminthotheca* [<= *Picris*] *echioides*), tocalote (*Centaurea melitensis*), and Italian thistle (*Carduus pycnocephalus*). These species may be well distributed or concentrated in certain areas.

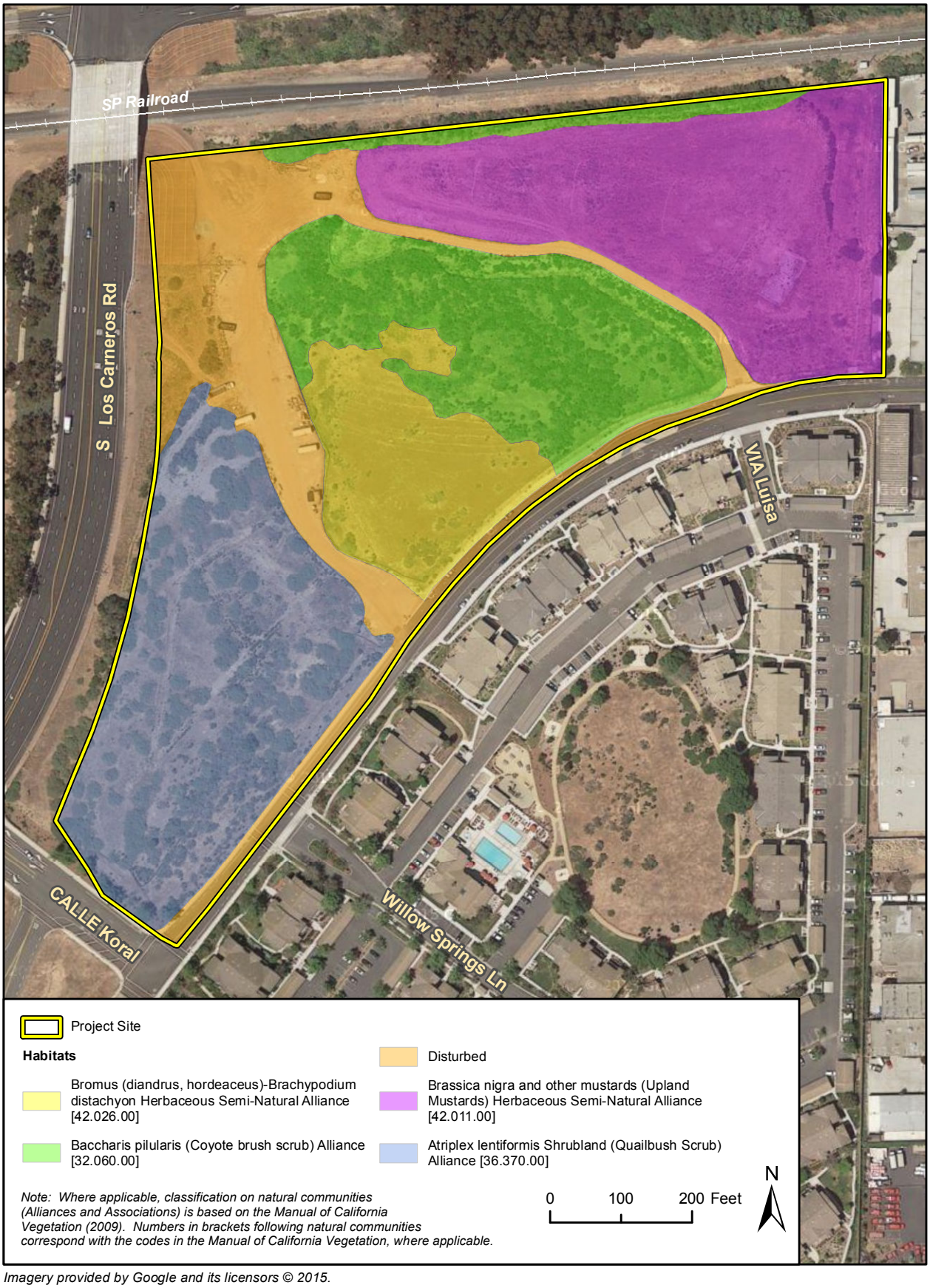
Native annual species represent much less than five percent of the vegetative cover. Among these species are Canada horseweed (*Conyza canadensis*), common tarweed (*Deinandra fasciculata*), and western ragweed (*Ambrosia psilostachya*). Emergent native shrubs include California sagebrush and coyote brush. Because they are comprised almost exclusively of non-native invasive species, areas mapped as *Bromus* grassland are not sensitive.

***Brassica nigra* and other mustards (Upland Mustards) Herbaceous Semi-Natural Alliance [42.011.00]**
Typically occurs in fallow fields, grasslands, roadsides, levee slopes, disturbed coastal scrub, riparian areas, waste places. Elevations range from sea level to approximately 4,900 feet asml. *Brassica nigra*, *Brassica rapa*, *Brassica tournefortii*, *Hirschfeldia incana*, *Isatis tinctoria* or *Raphanus sativus* are dominant in the herbaceous layer. Emergent trees and shrubs may be present at low cover.

Under the Willow Springs II EIR, this area was classified as “non-native grasses and forbs” (City of Goleta, 2012). On-site black mustard (*brassica nigra*) is dominant, and many other non-native annual species are also present. This area was required to be hydro-seeded with native seed for erosion control following grading in 2013 as part of Willow Springs II. Seeded species include purple needle grass (*Stipa pulchra*), nodding needle grass (*Stipa cernua*), California brome (*Bromus carinatus*), blue wildrye (*Elymus glaucus*), California brittlebrush (*Encelia californica*), western blue eyed grass (*Sisyrinchium bellum*), small fescue (*Festuca microstachys*), and California poppy (*Eschscholzia californica*). Emergent trees include tree tobacco (*Nicotiana glauca)* and shrubs include castor bean *(Ricinus communis*) and coyote brush.

Per the General Plan CE Policy 5.2 and the City’s CEQA Thresholds, existing native grasslands must be comprised of 10% or more cover of total relative native grasses and that removal of or disturbance to a patch of native grasses less than 0.25 acre that is clearly isolated and not part of a significant native grassland or an integral component of a larger ecosystem is allowed. The purple needle grass observed within the upland mustard area does not constitute sensitive native grassland pursuant to the General Plan and City CEQA Guidelines, since it was required to be planted for erosion control following 2013 grading.

Disturbed
Disturbed areas include the Camino Vista roadway constructed in 2013, dirt roads, and areas cleared as part of the recent Los Carneros Bridge improvements. These areas have been recently graded or are subject to routine disturbance, leaving them barren or sparsely vegetated. Plant species consist overwhelmingly of non-native species, as well as occasional native species common to highly disturbed areas.



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Habitat Map

Figure 2

Off-site natural communities, between the railroad and U.S. Highway 101 to the north of the site, include Eucalyptus groves (*Eucalyptus* (*globulus, camaldulensis*) Semi-Natural Woodland Stands [79.100.00]) and Arroyo willow thickets (*Salix lasiolepis* Alliance [61.205.00]).[2]

3.3 GENERAL WILDLIFE

Vertebrate wildlife species observed during the Rincon and Dudek biological surveys included one lizard, 16 species of birds, and seven species of mammals. Many of these species are typical of undeveloped weedy lots within urban areas or patches of native habitat within urban areas or at the urban-wildland interface. A list of these species is provided in Appendix B. This list represents a sample of the non-sensitive wildlife species that can be expected to utilize habitats at the site for cover, foraging, and reproduction. Furthermore, in general, this list includes species that are relatively common and more easily detected during daytime surveys. Several smaller species (e.g. some reptiles, birds, and rodents) undoubtedly reproduce within the Project site, and some larger or more mobile species utilize the site's resources occasionally or on an infrequent basis, such as foraging raptors, migrating songbirds, and medium to large sized mammals such as coyotes, opossums, raccoons, and skunks.

As described earlier under the Section 3.2, *Vegetation*, the Project site has a long history of disturbance. The type and number of species that are expected at the site reflects disturbed habitat conditions. Habitats supporting wildlife at the site are limited to non-native herbaceous vegetation and coyote brush scrub. The relatively low native plant, plant community and habitat diversity, as well as the small size of the patch of coyote brush scrub, limits available niche space and the type of wildlife species and number of individuals the site can support. Also, the Project's proximity to urban areas and roads and associated night lighting, human activity and higher noise levels compared to more pristine native habitats is expected to dissuade many species from utilizing the area. Species using the site are those adapted to urban areas or at least somewhat tolerant of human activities.

The Goleta area is highly developed and the extent of native habitats been reduced considerably, historically through agriculture and through urban and suburban development since the 1940s. Consequently, habitat to support wildlife populations in the Goleta area is limited. The disturbed coyote brush scrub and the non-native vegetation at the Project site and vicinity provide habitat value, albeit low, for a variety of wildlife species. The area supports rodent fauna, and several rodent burrows were observed at the site. This prey base is expected to attract mammalian and avian predators, including potentially several species of raptors. The Project site may be a foraging resource for bats as well. Some migratory songbirds are expected to forage occasionally within the disturbed coyote brush scrub, especially because of the site's proximity to the Goleta Slough, the Los Carneros Wetland, and Lake Los Carneros Open Space. The proximity of the Project to these important wetlands/open spaces increases the potential for wildlife to use the Project site and vicinity.

While the Project site itself lacks a stream or other water body, Los Carneros Creek is approximately 90 feet to the north and provides an intermittent source of water for wildlife, as well as a potential movement corridor to larger areas of core habitat to the north. The site is also connected to the Goleta Slough via Los Carneros Creek, or via disturbed habitats, the Los Carneros Wetland, and a culvert beneath Hollister Avenue.

[2] Also considered Southern Arroyo Willow Riparian Forest [CTT61320CA] under Holland, which is considered sensitive by CDFW.

The Project site contains habitat that can support nesting birds, including raptors, protected under the California Fish and Game (CDFG) Code Section 3503 and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703–712). Native trees, ornamental trees, woody palms, and woody shrubs are present within and adjacent to the Project that could provide suitable nesting habitat. However, no active or previously occupied nests were observed in the vegetation during the 2015 (or previous) surveys.

4.0 SENSITIVE BIOLOGICAL RESOURCES

Local, state, and federal agencies regulate special status species and require an assessment of their presence or potential presence to be conducted on-site prior to the approval of any proposed development on a property. For the purposes of this analysis, the term "sensitive" is used to denote those species that meet the criteria of CEQA Guidelines Section 15380 as an Endangered, Rare or Threatened Species, whether or not officially listed, as provided in Section 15380(d).

This section discusses sensitive biological resources observed on the Project site, and evaluates the potential for the Project site to support other sensitive biological resources.

4.1 SPECIAL STATUS SPECIES

Assessments for the potential occurrence of special status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, species occurrence records from other sites in the vicinity of the survey area, and previous reports for the Project. Refer to Figure D.1 in Appendix D for map of CNDDB records and critical habitat in the Project vicinity (within 5 miles). The potential for each special status species to occur in the survey area was evaluated according to the following criteria:

- **None.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low.** Suitable or marginal habitat may occur in the Project site; however: no CNDDB records of the species have been recorded within twenty five years; records of the species within 5 miles of the Project are suspected to be now extirpated or potentially misidentified with other species; or individuals were not observed during field surveys and are not anticipated to be present. For bird and bat species, this category may be used for species that are documented, but likely to be only transient through the area during foraging or migratory movements, and for which no suitable nesting or roosting habitat is present.
- **Moderate.** CNDDB or other documented occurrences have been recorded within 5 miles of the Project site (project vicinity) and suitable habitat is present (suitable nesting or roosting habitat or high quality foraging areas for bird and bat species). Individuals were not observed during field surveys; however, the species could be present or otherwise impacted by the Project.
- **High.** CNDDB or other documented occurrences have been recorded within 1 mile of the Project site and suitable habitat is present (suitable nesting or roosting habitat for bird and bat species). Individuals were not observed during field surveys; however, the species could be present or otherwise impacted by the project.
- **Present**. The species was observed in the Project site during field surveys, or documented from the site during recent previous surveys.

4.1.1 Special Status Plant Species

For the purposes of this report, special status plant species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the United States Fish and Wildlife Service (USFWS) under the federal Endangered Species Act (FESA) (7 U.S.C. § 136, 16 U.S.C. § 1531 *et seq*.); those listed or proposed for listing, or candidates for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act (CESA); and/or species on the *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW, 2015c). This latter document includes the *California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, Seventh Edition* (CNPS, 2015) as updated online. Those plants contained on the CNPS Rare Plant Rank (CRPR) Lists 1, 2, 3, and 4 are considered special-status species in this BRA, per the CNPS code definitions:

- *List 1A = Plants presumed extinct in California;*
- *List 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);*
- *List 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);*
- *List 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);*
- *List 2 = Rare, threatened or endangered in California, but more common elsewhere;*
- *List 3 = Plants needing more information (most are species that are taxonomically unresolved; some species on this list meet the definitions of rarity under CNPS and CESA);*
- *List 4.2 = Plants of limited distribution (watch list), fairly endangered in California (20-80% occurrences threatened); and*
- *List 4.4= Plants of limited distribution (watch list), not very endangered in California (<20% occurrences threatened or no current threats known).*

CEQA Guidelines, Section 15125(a), also directs that special emphasis should be placed on resources that are rare or unique to the region. For example, plants listed by the Santa Barbara Botanic Garden (SBBG) or the Goleta Slough Ecosystem Management Plan (GSEMP) may be considered locally sensitive.

Based on the database and literature review, 17 special status plant species are known or have the potential to occur within a 5-mile vicinity of the Project (Appendix D). Of these, seven special status plant species have a low potential to occur based on the presence of potentially suitable habitat and recorded occurrences:

- Coulter's saltbush (*Atriplex coulteri*) – CRPR 1B.2
- Davidson's saltscale (*Atriplex serenana* var*. davidsonii*) – CRPR 1B.2
- Mesa horkelia (*Horkelia cuneata* var. *puberula*) – CRPR 1B.1
- Pale-yellow layia (*Layia heterotricha*) – CRPR 1B.1
- Black-flowered figwort (*Scrophularia atrata*) – CRPR 1B.2
- Southern tarplant (*Centromadia parryi* ssp. *australis*) – CRPR 1B.1
- Contra Costa goldfields (*Lasthenia conjugens*) – federally endangered and CRPR 1B.1
- Santa Barbara honeysuckle (*Lonicera subspicata* var. *subspicata*) – CRPR 1B.2

No special status plant species were observed during the spring 2015 surveys, or previous surveys in 2014, 2013, 2010, or 2008. Based on the long history of agricultural use and soil disturbance at the Project site, and because the Project site was mass graded on at least two occasions since 1986, the potential for occurrence of special status plant species is considered to be very low. Furthermore, competition from invasive species further reduces the potential for occurrence of listed species. Therefore, no special status plant species are expected to be impacted by the project and no further analysis of special status plants is required.

4.1.2 Special Status Wildlife Species

Special status wildlife species are animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS or National Marine Fisheries Service under the FESA; those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the California CESA; animals designated as "Fully Protected," "Species of Special Concern," or "Rare," by the CDFW; and species on the *Special Animals List* (CDFW, 2015d). CEQA Guidelines, Section 15125(a), also directs that special emphasis should be placed on resources that are rare or unique to the region.

Based on the database and literature review, 47 special status wildlife species are known or have the potential to occur within the vicinity, known occurrences within 5 miles of the Project were considered in this analysis (Appendix D). Of these, 26 species have a low potential to occur, based on the criteria above. While species such as white-tailed kite and Coopers hawk have been recorded foraging on the site, they have a low potential to occur based on the category above. For bird and bat species, the low category may be used for species that are documented but likely to be only transient through the area during foraging or migratory movements, and for which no suitable nesting or roosting habitat is present. The species that can be reasonably anticipated to occur were determined based on the reported ranges of the species, and the type, extent, and condition of habitat available at the site.

The use of the site by sensitive vertebrate wildlife species is limited to foraging by some species of birds and mammals listed as Fully Protected (FP), Species of Special Concern (SSC), Watch List (WL), or other Special Animals (SA) by the State of California. No species listed as threatened or endangered under the ESA or the CESA are expected to have the potential to occur at the site; for details refer to Appendix D, *Special Status Species Evaluation Tables*. No sensitive species are expected to reproduce at the site.

Special-status species present or with a low potential to occur within or adjacent to the Project but could be potentially affected, are discussed below, and, if applicable evaluated under Section 4.3 of the EIR.

Low:

- Monarch butterfly (*Danaus plexippus*) – SA, foraging
- Silvery legless lizard (*Anniella pulchra pulchra*) – SSC
- Coast horned lizard (*Phrynosoma blainvillii*) – SSC
- Two-striped garter snake (*Thamnophis hammondii*) – SSC, foraging
- Cooper's hawk (*Accipiter cooperi*) – WL, foraging
- Grasshopper Sparrow (*Ammodramus savannarum*) – SSC, foraging
- sharp-shinned hawk (*Accipiter striatus*) – WL, foraging
- Short-eared owl (*Asio flammeus)* –SSC, foraging
- Long-eared owl (*Asio otus*) – SSC, foraging

- Oak titmouse (*Baeolophus inornatus*) – SA, foraging
- Burrowing owl (*Athene cunicularia)* – SSC, overwintering and foraging
- Vaux's swift (*Chaetura vauxi*) – SSC, foraging
- Northern harrier (*Circus cyaneus*) – SSC, foraging
- Black swift (*Cypseloides niger*) – SSC, foraging
- White-tailed kite (*Elanus leucurus*) – CFP, foraging
- Merlin (*Falco columbarius*) – WL, foraging
- Loggerhead shrike (*Lanius ludovicianus)* – SSC, foraging
- Yellow warbler (*Setophaga petechia*) – SSC, foraging
- Hoary bat (*Lasiurus cinereus*) – SA, foraging
- Pallid bat (*Antrozous pallidus*) – SSC, foraging
- Silver-haired bat (*Lasionycteris noctivagans*) – SA, foraging
- Western mastiff bat (*Eumops perotis californicus*) – SSC, foraging
- Western red bat (*Lasiurus blossevillii*) – SSC, foraging
- Townsend's big-eared bat (*Corynorhinus townsendii*) – SSC, foraging
- Yuma myotis (*Myotis yumanensis*) – SA, foraging
- American badger (*Taxidea taxus*) – SSC, foraging

Sensitive Terrestrial and Species

No special status wildlife species have the potential to occur based on the absence of suitable habitat and ongoing disturbance (Appendix D). In the unlikely event a special status terrestrial species was present on-site, it would be capable of escaping harm during vegetation removal and grading/construction activities. Impacts to individuals would not have an impacts to population in the area, given the fragmented nature of the Project site and presence of suitable habitat at north of U.S. Highway 101. Therefore, no special status terrestrial species are expected to be significantly impacted by the project and no further analysis of special status terrestrial species is required.

Nesting Bird Habitat

The Project site contains habitat that can support nesting birds, including raptors, protected under the California Fish and Game (CFG) Code Section 3503 and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703–712). Woody shrubs, eucalyptus and willow woodlands, and ornamental trees are present within and adjacent to the Project that could provide suitable nesting habitat. However, no active or previously occupied nests were observed in the vegetation during the 2015 or previous surveys.

Many other sensitive bird species potentially use the Project site for foraging (see Appendix D), but are not expected to nest thereon. The yellow-breasted chat and the yellow warbler may temporarily forage in the disturbed coyote brush scrub during migration, as each is known to utilize scrub habitats and is known to occur within the Goleta Slough Ecosystem and nearby Tecolotito Creek. The northern harrier is a fairly common visitant to the Goleta Slough and has been observed roosting at the Los Carneros Wetland, which is a few hundred feet to the south of the Project. This species as well as migrants such as the Vaux's swift and black swift may potentially forage over the Project site when present in the area. The burrowing owl and loggerhead shrike are also known from the Goleta Slough and have been observed in the vicinity of the Project to the west of Los Carneros Road.

Bat Habitat

As many as five species of bats and three other species of mammals listed as SSC may occur at the Project site. The bat species would only be expected to aerially forage occasionally over the site, and

would not be expected to roost, hibernate, or reproduce on the site. The badger could potentially reach the Project site from natural areas to the north by way of the Los Carneros Creek riparian corridor; although, given the disturbed condition of the Project site and vicinity, as well as its small size, any occurrence of badgers would likely be transient.

Raptor Habitat

The City and surrounding area are inhabited by several species of migratory and resident raptors. Sensitive sensitive raptors species are known to occur or have potential to occur at the project site, including the white-tailed kite, burrowing owl, northern harrier, Cooper's hawk, sharp-shinned hawk, and short-eared owl, and merlin may forage on or near the Project site.

White-tailed kite. The white-tailed kite is a regular breeder and year-round resident in the Goleta area. Numbers declined in the area beginning in the 1970s through the early 1990s, but subsequently rebounded, based on annual Santa Barbara Audubon Society Christmas Bird Count data and annual monitoring of kite populations by local biologists (National Audubon Society 2015; Holmgren 2011). Although roost sites may shift suddenly within and between seasons, nearly all roosts on the South Coast since 1965 have been on or within one mile of More Mesa (Lehman, 2015). At the Goleta Slough, white-tailed kites forage regularly and have been recorded roosting in small numbers. Kites have been observed foraging over the Project site. The white-tailed kite inhabits low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands (Dunk, 1995). They nest in trees, usually with a dense canopy, but nest trees can vary from single, isolated trees to trees within large woodlands. Along the South Coast, preferred nest trees include (in order of frequency used): oaks, pines, Monterey cypress, eucalyptus, and willows (Holmgren, 2000). In the Goleta area, nest sites are always adjacent to open space areas with a stable prey base, and kites show long-term fidelity to sites with good foraging opportunities (Holmgren, 2000). A variety of foraging habitat types are used, but those that support larger and more accessible prey populations are more suitable. Diurnally active rodents, primarily meadow vole (*Microtus californicus*), but also house mouse (*Mus musculus*) and western harvest mouse *(Reithrodontomys megalotis*) are the kite's principal dietary components. White-tailed kite territory size is a function of prey and competitor abundance. Reported average territory sizes include 4 to 53 acres, 47 to 130 acres, and 42 to 297 acres (City of Goleta, 2011). They are also found less commonly over agricultural areas and along highway rights-of-way (Lehman, 2015).

Burrowing owl. The burrowing owl formerly bred along the South Coast and in western Santa Barbara County, but its presence along the South Coast and western portions of Santa Barbara County is now restricted to late fall and winter transients from more interior portions of California (Lehman, 2015). Favored overwintering sites over the past two decades have been More Mesa and San Marcos Foothills (Lehman, 2015). Burrowing owls frequent extensive dry or sparse grassland and agricultural areas. The burrowing owl nests in burrows typically dug by fossorial mammals such as badgers and ground squirrels. Man-made structures, such as cement culverts and debris piles, may also be used. Recent sightings of wintering burrowing owls along the South Coast include Atascadero Creek near More Mesa in 2008, rocky grassland northeast of Foothill Road and Highway 154, the University of California Santa Barbara (UCSB) West Campus in 1998 and other University lands north of the Coal Oil Point Reserve in 2001. The latter record was of a single individual observed within a burrow in heavily disturbed area in the southern portion of the University-owned South Parcel, several hundred feet northwest of Devereux Slough in winter, 2001. A burrowing owl may have been observed on November 7, 2006 by Goleta staff along the railroad berm to the north of the Village at Los Carneros development site west of Los Carneros Road (City of Goleta, 2014a). Given the lack of recent records in the project vicinity, fragmented ruderal habitat subject to ongoing disturbance, and the adjacency on-site ruderal

habitat to U.S. Highway 101 and the Union Pacific Railroad (UPRR) tracks, the burrowing owl has low potential to overwinter on at or adjacent to the Project site.

As discussed above, the low potential to occur determination is applied to species that are documented, but likely to be only transient through the area during foraging or migratory movements. Several other raptors that do not meet the aforementioned definition as "sensitive" (but are protected when nesting pursuant to CFGC § 3503.5) were observed or have the potential to forage at the site, including the American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), great horned owl (*Bubo virginianus*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), and turkey vulture (*Cathartes aura*). The following discussion of raptor habitat focuses considerably on the sensitive white-tailed kite, as the local population of white-tailed kites has been well studied, it is the only FP raptor documented as foraging (only) at the Project site, and it also nests in the Goleta area (outside the Project site).

The General Plan extends protection to raptor nesting and roosting sites, by designating nesting and roosting sites as ESHA. The City requires that new development be set back at least 100 feet from active and historical raptor nests that qualify as ESHA, under CE Policy 8.4 (when feasible). Nesting raptors are also protected by Fish and Game Code Sections 3503 and 3503.5, as well as the Migratory Bird Treaty Act.

Raptor nests were not observed during the biological surveys conducted in 2015, 2014, 2013, 2010, and 2008, and the General Plan does not have a record of a historical raptor nest at or adjacent to the Project, as shown in the General Plan CE Figure 4.1 (Figure 4). Special Status and other sensitive raptors do not have potential to nest at the Project site due to lack of suitable nesting habitat and the proximity of the site to existing development, noise, and human activities, or because the Goleta area is outside of the species current breeding range. The Project site also lacks habitat for communal roosts of turkey vultures or white-tailed kites. The stand of eucalyptus located to the north of the northern stockpile area and the UPRR could be used by nesting raptors, although this is considered unlikely due to the proximity of the trees to Los Carneros Road and U.S. Highway 101 and, therefore, considerable traffic and noise. Additionally, the off-site trees were surveyed for nests in the spring 2015, and raptor nests (active or inactive) were not detected.

White-tailed kites gather in communal roosts during the non-breeding season. Roost aggregations of several to 45 individuals were recorded during regular monitoring of several roost sites in Goleta from November 1986 to May 2000 (Holmgren, 2000). Historically, More Mesa has been the most important communal roosting site in the Santa Barbara area, which is approximately three miles from the Project. Turkey vulture communal roosts at Ellwood North and Ellwood West on Ellwood Mesa are documented in the Ellwood-Devereux Coast Open Space and Habitat Management Plan (March 2004). The northern harrier has also roosted at the Los Carneros Wetland (GSEMP, 1997).

At the Los Carneros Wetland, white-tailed kites nested in 1990 (City of Goleta, 2012), and winter roosts were observed 1985–1990 (Lehman, 2015). However, presence/absence data for nesting kites is lacking for the wetland for most years since 1990. This historical nest site is several hundred feet to the south of the Project and, therefore, well outside of the 100-foot buffer required between new development and historical nest sites of sensitive (special-status) raptors by the General Plan (City of Goleta, 2012).

White-tailed kite nest sites can be vacated for a period of years and returned to later for nesting (Holmgren, 2000). The possibility of kites returning to roost or nest at the Los Carneros Wetland cannot be discounted, although it is less likely now that the wetlands are nearly surrounded by residential

development and roads. In the Goleta area, kite nest sites have always been adjacent to open space areas with a stable prey base (Holmgren, 2000). Historical nest sites in the Goleta area have been abandoned when adjacent foraging areas have been compromised (Holmgren, 2000). Selected important nesting areas for the white-tailed kite in the Goleta area include Ellwood Mesa, Lake Los Carneros County Park, Coal Oil Point Reserve and nearby undeveloped areas, More Mesa, the East Storke Campus Wetland, and the Goleta Slough.

General Plan Policy CE 8.2 requires that all development be located, designed, constructed, and managed to avoid disturbance or adverse impacts to sensitive (special-status) species and their habitats, including nesting, rearing, roosting, *foraging*, and other elements of required habitats. The City's Environmental Thresholds and Guidelines Manual instructs that a project may result in a significant impact if it substantially fragments, eliminates, or otherwise disrupts foraging areas and/or access to food resources.

Project site habitat includes 4.74 acres of *Bromus* grassland, 4.17 acres of quailbush scrub, 3.29 acres of coyote brush scrub, and 4.06 acres of upland mustards that likely provide limited low-quality foraging habitat for raptors. The raptor foraging habitat at the Project site is separated from Bishop Ranch and Lake Los Carneros foraging habitat by U.S. Highway 101 and UPRR train tracks. Two important factors influencing habitat quality for foraging are prey density, as well as habitat features affecting prey accessibility, such as suitable perches (Dunk 1995). A number of prey species including Botta's pocket gophers, California ground squirrels, brush rabbits, various passerines, and western fence lizards, as well as several rodent burrows were observed during the biological surveys of the site in 2010, 2013, 2014, and 2015. Based on previous environmental analysis, the site has prey availability and foraging value (City of Goleta, 2011). The Project site does not contain notable perching habitat for foraging raptors. There are a few medium-sized trees, fences, and tall posts adjacent to the Project site, as well as tall eucalyptus trees to the north, which could serve as perches for foraging raptors. However, these potential perches are generally close to existing development or the traffic and noise of the U.S. Highway 101.

The Project is in local wildlife linkage between natural habitats to the north of U.S. Highway 101, the project site, and Los Carneros Wetland (see Section 4.5, *Wildlife Movement*). These habitat connections are expected to have positive effects on the foraging value of the site, as they allow for dispersal of small mammals and other prey species to repopulate the site following population declines. Prey density is in part dependent upon the ability of prey populations to rebound following cyclical declines caused by over-exploitation by predators or catastrophes, such as drought or disease. Habitat connectivity is an important factor affecting the ability of prey populations to rebound. Corridors and connections among habitat areas indirectly support kites as well as other birds-of-prey by maintaining their prey base.

White-tailed kites are known to forage up to tens of kilometers from communal roost sites, so when prey reductions occur at the local level, kites have a sufficiently large daily range that they can find other areas to hunt (Dunk, 1995). When collapse of prey populations occurs at the regional scale, kites can vacate an area until prey populations rebuild at which time kites gradually reoccupy suitable foraging areas, nest sites, and roost locations (Dunk, 1995). The local population of white-tailed kites has fluctuated dramatically presumably in response to prey abundance. Kites are a nomadic species able to adopt new home bases and vacate long-used areas quite abruptly (Dunk, 1995). The presence and abundance of white-tailed kites is strongly correlated with the presence of meadow voles (Stendell, 1972). California voles (*Microtus californicus)* were not observed, but can be expected to occur at the Project site.

As discussed previously, white-tailed kites formerly nested at the Los Carneros Wetland. If kites were to return to nest at the Los Carneros Wetland, the foraging habitat at the Project site would become of greater importance, as kites seldom forage more than 0.5 mile from the nest when breeding (Hawbecker, 1942). Henry (1983) found the mean breeding home range to be as low as 0.2 mile. The Project is within a 0.2-mile radius of the wetland, and much of the area within a 0.5-mile radius of the wetland is currently developed and would be almost completely developed under the Project. With development of the Project, kites nesting at the Los Carneros Wetland would be able to forage within a 0.5-mile radius of the wetland at the areas within the Goleta Slough Ecosystem south of Hollister Road, and undeveloped fields and native habitats north of U.S. Highway 101.

The Project also within a 0.5-mile radius of the natural habitats at Lake Los Carneros County Park, where nesting kites or kites displaying persistent territoriality have been observed in most years since year 1999 (City of Goleta, 2012). Kites have been recorded nesting have been recorded in the pine trees south of the dam in recent years (Millikan, 2011). Although the Project is within a 0.5-mile radius of this area, the foraging habitats at the County Park and adjacent undeveloped fields to the north of U.S. Highway 101 are probably of sufficient size and quality to support successful kite breeding. The Project is outside of the anticipated foraging range of nesting white-tailed kites at other known key nesting areas in the Goleta area (City of Goleta, 2012).

Although the Project site is estimated to be of moderate value to foraging raptors, it is of lesser regional importance given its small size, fragmented condition, proximity to urban development and road right-of-ways, and low native habitat diversity. The Project site is part of a fragmented area of disturbed habitat that is surrounded by development and roads. The Goleta area contains a number of other natural areas that provide comparatively larger expanses and higher value raptor habitat, as evidenced by the documented use and repeated nesting of various species of raptors in these areas (City of Goleta, 2012). For example, quality raptor habitat exists at Ellwood Mesa, Los Carneros Lake County Park, the Goleta Slough, Coal Oil Point Reserve and vicinity, and the Santa Ynez foothills.

Raptors generally require large home ranges, and individual foraging territories are often measured in terms of tens of acres to square miles. During breeding, demand for prey increases and additional habitat must be available for young birds to disperse from nesting locations and establish new territories. Urban development and other land-use conversion have resulted in the removal of substantial amounts of raptor foraging habitat in the Goleta area. Loss of foraging habitat reduces prey abundance and availability, which reduces and limits the number of raptors a given area can support. In general, smaller populations are less resilient to environmental stress (e.g. drought, disease, and fluctuations in prey availability).

Semi-aquatic Animals and Off-site Aquatic Critical Habitat

Semi-aquatic species (e.g., California red-legged frog, two-striped garter snake) are not likely to occur in and upstream from the channelized section of Los Carneros Creek adjacent to the Project, because only a limited band of riparian habitat is present that is adjacent to and subject to noise and vibration disturbances from U.S. Highway 101 and UPRR. The upland areas within 100 feet of the creek include the off-site filled and compacted UPPR tracks, and areas on the Project site that have recently been graded and reseeded. Areas within 500 feet of the creek are not suitable upland transitional habitat because of ongoing disturbance.

Off-site Los Carneros Creek provides intermittent aquatic habitat; during the dry season flow is low and consists of agricultural run-off (Leydecker, 2006). The creek is designated critical habitat for the southern steelhead, and south of Hollister Avenue for the tidewater goby (*Eucyclogobious newberryi*). However, neither species is anticipated to be present adjacent to the Project since the riparian area is separated from the Goleta Slough by 0.41 mile of channelization. Refer to Figure D.1 in Appendix D for map of designated critical habitat in the Project vicinity.

No direct impacts would result from construction and operation since no aquatic habitat occurs (or is expected to occur) on-site, Indirect impacts off-site aquatic habitat for downstream aquatic species (e.g., tidewater goby, and steelhead) would be reduced with adherence to existing regulations requiring a Stormwater Pollution Prevention Plan (SWPPP) to address stormwater run-off and sedimentation. Therefore, no special status aquatic or semi-aquatic species are expected to be impacted by the project and no further analysis of special status aquatic or semi-aquatic species is required.

4.2 SENSITIVE PLANT COMMUNITIES

One sensitive plant community that is tracked by the CNDDB occurs within the Project vicinity: Southern Coastal Salt Marsh. This nearshore marine tidal habitat is not present on-site. During the 2015 surveys no sensitive plant communities were present, nor were any of the individual indicator species associated with the communities observed. As discussed above, the purple needlegrass hydro-seeded within the upland mustard area is not considered a sensitive community, including under the General Plan and City's CEQA Thresholds. ESHA on-site and adjacent to the Project is discussed in Section 4.5, *Resources Protected by Local Policies and Ordinances*, below.

4.3 JURISDICTIONAL WATERS AND WETLANDS

No areas defined as wetlands by Federal, State or local policy are located on the Project site. Two previously identified jurisdictional features exist off-site adjacent to Project: 1) Los Carneros Creek, approximately 90 feet (measured from the edge of riparian vegetation) north of the northeast corner and channelized east of the Project; and 2) the Los Carneros Wetland, approximately 80 feet south of the southeastern corner of the Project site. No jurisdictional features are present within the Project site.

Los Carneros Creek riparian habitat, measured to edge of the willow thickets, extends approximately 100 feet wide beyond the limits of the banks where the creek crosses U.S. Highway 101. The potential off-site jurisdictional edge of riparian vegetation begins approximately 90 feet from the northern Project boundary. During 2015 surveys the ordinary high water mark (OHWM) was not apparent as the creek was obscured by vegetation. The off-site drainage is intermittent and does not regularly contain flowing water (Leydecker, 2006). Los Carneros Creek is channelized approximately 400 feet to the east of the Project, separated by Aero Camino. Water in Los Carneros Creek flows approximately 1.18 river miles south to its confluence with Tecolotito Creek, then approximately 2.24 river miles through the Goleta Slough to the Pacific Ocean.

As authorized by the U.S. Army Corps of Engineers (USACE) 404 Permit (No. 95-50087-DJC) the Los Carneros Wetland is permitted to receive stormwater flows from the Willow Springs I & II development, and the Project. The northern portion of the Los Carneros Wetland was required to be created to both as mitigation for filling a portion of a wetland on Willow Springs I, and to manage stormwater run-off from Willow Springs I & II and the Project.

4.4 WILDLIFE MOVEMENT

Wildlife need to access essential habitat for water, foraging, breeding, and cover. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. "Wildlife corridor" is a term commonly used to describe linkages between discrete areas of natural habitat that allow movement of wildlife for foraging, dispersal, and seasonal migration.

The Project is in a highly urbanized area. At the regional/landscape level scale, the City is not within any mapped landscape models, such as an Essential Connectivity Area or Natural Landscape block in the *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California* (Spencer, et al. 2010). Recent Environmental Impact Reports (EIRs) analyzed potential impacts to wildlife corridors for proposed residential projects adjacent to Los Carneros Road and south of U.S. 101: Willow Springs II, to the east of Los Carneros Road (City of Goleta, 2011), and the Village at Los Carneros (City of Goleta 2014), to the west of Los Carneros Road. Tecolotito Creek is recognized as ESHA under the General Plan and considered a wildlife corridor for mammal species that travel between the Santa Ynez Mountain foothills and the Santa Barbara Airport and greater Goleta Slough (Dudek, 2014b). Los Carneros Creek that connects areas north of U.S. 101 to the Goleta Slough is a poor wildlife linkage providing minimal wildlife habitat. The "stormwater culvert" consists of an approximate 2,000 foot concrete-lined flood control channel with steep walls and 6-foot high chain-link fences at the top-of-slope (west and east) bordering the channel. The Project site was evaluated as an alternative wildlife movement corridor, from the Los Carneros Creek culvert under U.S. Highway 101, through the Project site and Los Carneros Wetland, below Hollister Avenue, and to the Goleta Slough (City of Goleta, 2011; Figure 4.3-3).[3]

The General Plan does not specifically define "wildlife corridors" or "habitat networks" which as discussed below, are protected under the General Plan. A wildlife movement corridor was defined by the City in the Willow Springs EIR as:

> "*…physical connections that allow wildlife to move between patches of suitable habitat in both undisturbed landscapes, as well as environments fragmented by urban development. Large areas of suitable habitat and corridors between these areas are necessary to maintain healthy ecological and evolutionary processes. For example, wildlife movement corridors are necessary for dispersal and migration, to ensure the mixing of genes between populations, and so wildlife can respond and adapt to environmental stress.*"

The *Wildlife Corridor Analysis for the Heritage Ridge Project* (Appendix E) further defines wildlife movement between core areas and/or habitat patches as wildlife corridors and linkages:

> Habitat Linkage: *An area which possesses sufficient cover, food, water and/or other essential elements to serve as a movement pathway between two or more large areas of habitat. An example of a linkage would be a belt of coastal sage scrub traversing a development, and connecting suitable habitat areas on either side of the developed area.*

[3] The wildlife analysis shown in Figure 4.3-3 of the Willow Springs II EIR does not account for the existing cultural resource fencing present in the project site.

> Wildlife Corridor: *Areas of open space of sufficient width to permit larger, more mobile species to pass between larger areas of open space (core habitats), or to disperse from one major core habitat to another. Such areas can be several hundred feet wide, unobstructed, and usually possess cover, food and water.*

The Willow Springs II EIR identified two biologically significant ecological habitat "patches" in the area, the Santa Ynez Mountains and the Goleta Slough. The latter, the Goleta Slough, has become isolated from the "core habitats" of the Santa Ynez Mountains due to urban expansion in the City. Several creeks connect these two ecological areas, including Tecolotito (Glen Annie), Los Carneros, San Pedro, Las Vegas, San Jose, and Marie Ignacio. Tecolotito Creek has been determined to be one of four primary corridors in the Goleta Valley with sufficient culvert sizes to allow for movement of larger mammals (i.e., deer and black bears) (Hoagland et al., 2011; City of Goleta, 2012). However, in the Village of Los Carneros FEIR, the City (2014) noted that the largest species to move through the Tecolotito Creek and culverts are foxes (*Vulpes* spp.) and the American badger and found the 110-foot total minimum width (60-feet for the Tecolotito Creek ESHA and 50 feet for adjacent upland habitat) proposed for the Los Carneros Village project was sufficient for wildlife species utilizing corridor (City of Goleta, 2014a). Based on literature, existing regional data, and site-specific studies, Tecolotito Creek and its culverts provide the best option for wildlife movement between the Santa Ynez Mountain foothills and the Goleta Slough on Santa Barbara Airport property.

In 2014 and 2013, wildlife camera studies were conducted, as summarized in the *Wildlife Corridor Analysis for the Heritage Ridge Project* (Appendix E). The study found evidence of a wildlife linkage between the Santa Ynez Mountain foothills and the Los Carneros Wetlands through the Heritage Ridge Project site and no linkage between the Los Carneros Creek or Wetlands and the greater Goleta Slough on the Santa Barbara Airport. This on-site wildlife linkage is important for many small- (raccoon, striped skunk, etc.) and medium- (coyote and bobcat) sized mammal species that use these areas (wetlands and foothills) to hunt, seek shelter, breed, and conduct other normal behaviors important for their survival, especially within the wilderness-urban interface. The study confirmed that the Hollister Avenue culvert at Tecolotito Creek offers the most ideal wildlife access point to the Goleta Slough on Santa Barbara Airport property. Another possible wildlife linkage exists to the east connecting to Las Vegas Creek at the Twin Creeks Golf Course, which also connects to the Goleta Slough, although with impediments. The expected end point of the linkage for most wildlife species traveling to the east may be the golf course for hunting opportunities.

4.5 RESOURCES PROTECTED BY LOCAL POLICIES AND ORDINANCES

Natural resources are regulated and protected through the Conservation Element (CE) of the General Plan, which contains policies aimed at protecting ESHAs that are generally mapped in Figure 4.1 of the General Plan (Figure 4). The General Plan provisions are also included in the City's Zoning Ordinance through the ESHA Goleta Overlay (Section 35-250B).[4] Policies in the CE reinforce State and Federal regulations that protect special-status habitats and species and apply additional local restrictions to identify, preserve, and protect the City's biological resources. Below is a summary of each ESHA type mapped on or near the Project (See Figures 3 and 4), and the text of the policies that regulate these resources.

[4] The City's Zoning Ordinance also includes a Riparian Corridor Goleta overlay (Section 35-250C), but it only applies to rural agriculturally designated parcels the existing and Project site land use designation is urban.

Sage Scrub ESHA

A portion of the Project site that contains coyote brush scrub is currently designated an ESHA pursuant to the City's General Plan. It is mapped on Figure 4-1 of the Conservation Element as "sage scrub" on the Project site in the approximate areas fenced for cultural resources, as shown in Figure 3. Pursuant to CE Policy 1.5, the ESHA designation may be removed if a site-specific biological study contains substantial evidence that an area previously shown as an ESHA on Figure 4-1 does not contain habitat that meets the definition of an ESHA (excluding illegal removal). If the final decision-making body determines that the area is not an ESHA, a map modification shall be included in the next General Plan/Coastal Land Use Plan amendment. Please refer to Appendix F, *Technical Review of Coastal Sage Scrub (CSS) Environmentally Sensitive Habitat Area (ESHA) for the North Willow Springs Project*, for a site-specific biological study and substantial evidence regarding the ESHA designation. The area originally designated ESHA also extended onto Willow Springs II; refer to Figure 4-1 City's General Plan Conservation Element (Figure 4). A General Plan Amendment removing the sage scrub ESHA designation from Willow Springs II was approved by the Goleta City Council on June 17, 2014.

The Project was not mapped as ESHA under the 1993 Goleta Community Plan (County of Santa Barbara, 1993). The on-site ESHA is mapped as "Various Annual Grasslands" a habitat type under the March 2004 Detailed Habitat Inventory conducted by the City (City of Goleta, 2004). The 2006 General Plan EIR maps the on-site ESHA as "scrub." However, "coyote brush scrub" in not considered ESHA under the Programmatic General Plan EIR (City of Goleta, 2006, Page 3.4-10). A description of the coyote brush scrub is provided under Section 3.2, *Vegetation and Sensitive Plant Communities*.

The General Plan CE Policy 5.3 defines coastal sage scrub habitat as a drought-tolerant, Mediterranean habitat characterized by soft-leaved, shallow-rooted subshrubs such as California sagebrush, coyote brush, California encelia, goldenbush (*Ericameria ericoides*), giant wild rye (*Elymus condensatus*), and annual non-native grasses. Of these species only coyote brush was observed as dominant or codominant within the mapped on-site ESHA. The National Vegetation Classification Hierarchy as Applied to California Vegetation identifies coastal sage scrub as a macrogroup of multiple alliances, none of which includes coyote brush as the dominant alliance species. Under General Plan CE Policy 5.3 coastal sage scrub habitat must have both the compositional and structural characteristics of coastal sage scrub as described in a classification system recognized by the CDFW. However, no other characteristic coastal sage scrub species was observed as occurring even infrequently or sparsely (< 8% cover) by Rincon or Dudek Biologists.

The coyote brush scrub does not meet City's General Plan Policy CE 1.1a or CE 1.1b definitions of ESHA, and is not "rare or especially valuable because of its special nature or role in an ecosystem," when considering of the following conditions:

- Coyote brush scrub is a common plant community. Coyote brush scrub receives the lowest rarity ranking (G5S5) and is not considered sensitive by the State of California (CDFW, 2010);
- The coyote brush scrub at the site is disturbed, contains high cover of invasive species, low native plant species diversity, and has become established at the site relatively recently since the area was last graded. The site has been subject to agricultural activity related earth disturbance for much of the last 100 years;
- Threatened, endangered, or other special status wildlife species are not expected to reproduce at the site, and the site is not essential to the life-cycle of any listed wildlife species;
- Threatened, endangered, or other special status plant species have not been found at the site, and are not expected due to prior grading and agricultural use, as well as the site's existing disturbed condition; and,

- The coyote brush scrub is within an urban area, adjacent to existing industrial and residential development, and is not contiguous with native habitats.

Therefore, although according to Figure 4-1 in the Conservation Element of the Goleta General Plan the Project site contains coastal sage scrub ESHA, habitat that meets ESHA criteria was not observed within the Project boundary or nearby areas.

The coyote brush scrub does not meet the criteria in relevant City's General Plan policies to be considered an ESHA or coastal sage scrub; and therefore, should not be subject to the ESHA protection policies of the General Plan. Conservation Element policy CE 1.5: *Corrections to Map of ESHAs* allows ESHAs to be removed from Figure 4-1 of the General Plan if a site-specific biological study demonstrates substantial evidence that the area does not in fact contain habitat that meets the definition of an ESHA. The Project includes a General Plan Amendment to remove the Coastal Sage Scrub ESHA designation that is being concurrently processed. For further details, refer to Appendix F, *Technical Review of Coastal Sage Scrub (CSS) Environmentally Sensitive Habitat Area (ESHA) for the North Willow Springs Project.*

Stream Protection Area ESHA

The riparian habitat associated with the Los Carneros Creek adjacent the northeast property line is mapped as a Stream Protection Area (SPA) ESHA, thereby warranting a 100-foot buffer under Policy CE 2.2.

Wetland ESHA

The Los Carneros Wetland begins approximately 80 feet from the southeast portion of the Project site, and is designated ESHA pursuant to General Plan CE Policy the 3.5, *Protection of Wetlands Outside the Coastal Zone*. A buffer evaluation is required under Policy CE 3.5; the policy requires a minimum buffer of 50 feet.

The Los Carneros Wetland is an approximate 7.25-acre open space area located north of Hollister Avenue, east of Los Carneros Way, and southwest of the residential units at Willow Springs I. It is approximately 600 feet southwest of the Willow Springs II project. The GSEMP considered the Los Carneros Wetland a major subarea of the Goleta Slough Ecosystem. The Los Carneros Wetland is a rare, surviving remnant freshwater-to-estuarine transitional habitat at the northern edge of the Goleta Slough. It contains areas of brackish and freshwater marsh, as well as willow-dominated, palustrine scrub-shrub/forested wetlands that were once part of a continuous corridor connecting Lake Los Carneros and the Goleta Slough. The site has historically supported nesting and roosting white-tailed kites. The wetland is also known as a roosting and foraging habitat for the northern harrier, short-eared owl, sharp-shinned hawk, and Cooper's hawk, and supports the only Goleta Valley location for yerba

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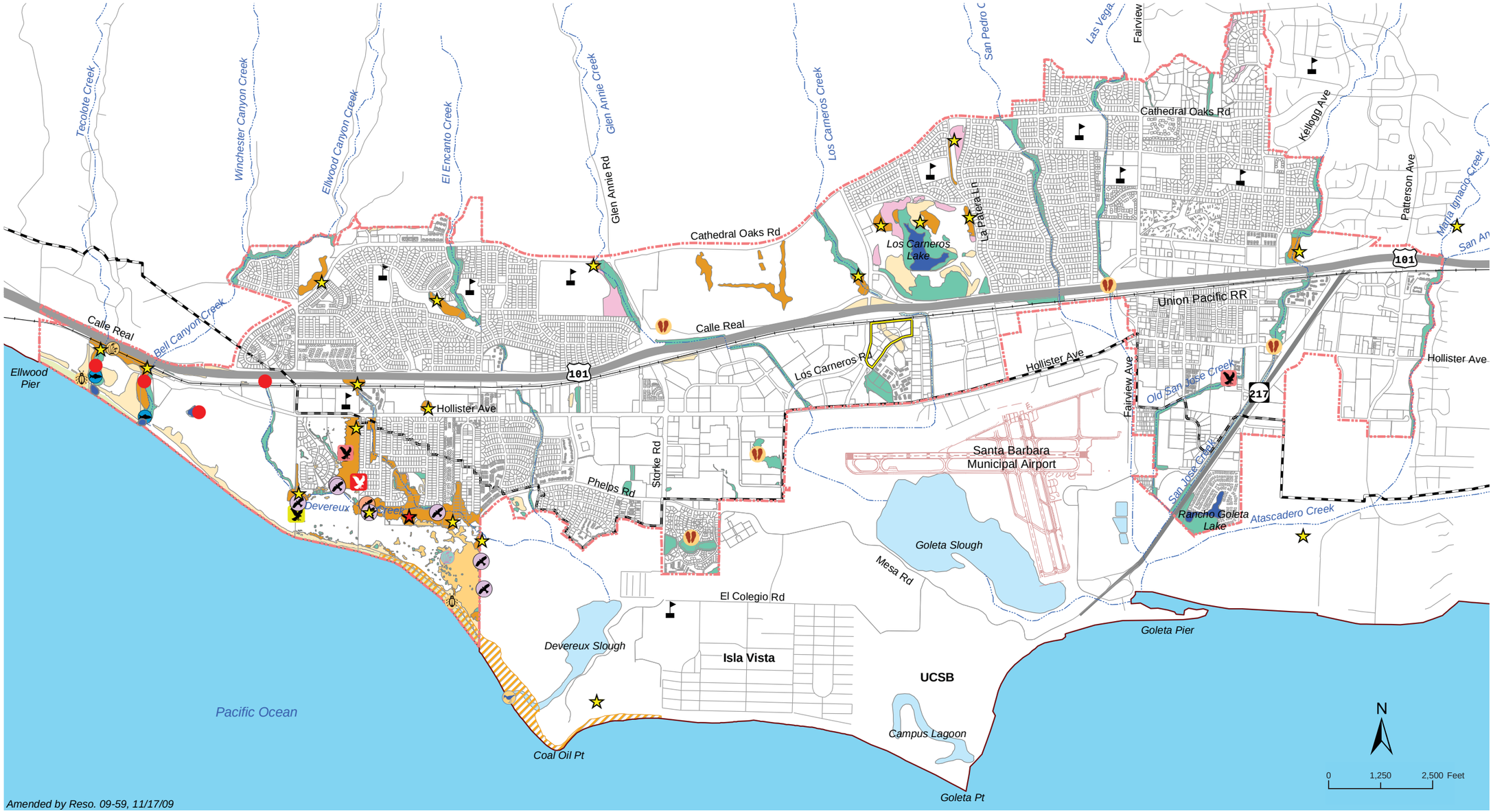
Additional data provided by City of Goleta, March 2015.

Surrounding ESHA Map

Figure 3



Legend

Environmentally Sensitive Habitats

- Beach and Shoreline
- Unvegetated Open Creek Channel
- Open Water
- Riparian/Marsh/Vernal Pool
- Native Grassland
- Sage Scrub/Dune/ Bluff Scrub
- Native Upland Woodlands /Savannahs
- Monarch Butterfly and/or Raptor Roosting Habitat
- Critical Habitat for the Western Snowy Plover

Special-Status Species

- Cooper's Hawk Nest
- Kite Nest
- Red-Shouldered Hawk Nest
- Red-Tailed Hawk Nest
- Vulture Roost
- Western Snowy Plover
- Tidewater Goby
- Red-Legged Frog
- Globose Dune Beetle
- Santa Barbara Honeysuckle
- Black-Flowered Figwort
- Southern Tarplant
- Monarch Butterfly Aggregation
- Ellwood Main Monarch Grove

Other Features

- Goleta City Boundary
- Coastal Zone
- Schools
- Creeks
- Project Site

Sources: Habitat mapping conducted by Jones & Stokes in April-May 2006 based on aerial imagery (1-foot resolution) and field observation, merged with 1) information on the occurrence of special status habitats and species collected by City from recent information from local environmental review ; 2) mapping of creeks, ponds, lakes and reservoir location based on USGS topographic map review and habitat management plan documents, air photo interpretation, and field survey; and 3) review of California Natural Diversity Database (CNDDB) records by Jones & Stokes for occurrence of special status species in the Goleta and Dos Pueblos quadrangles and vicinities (2006 databases). Habitats reflect those comprising an ESHA.

Note: ESHA locations are approximate. Any area not designated on the ESHA map that meets the ESHA criteria shall be accorded the same protections as if the area was shown on the map. ESHA buffers are not shown on this map. Refer to the applicable policy in the General Plan for the specific buffer widths.

Special-Status Species and Environmentally Sensitive Habitat Areas

Source: Goleta General Plan/Local Coastal Program, 2009

Figure 4

mansa (*Anemopsis californica*), a locally important species according to the GSEMP. The Los Carneros Wetland is upstream from and connected to the Goleta Slough through a small culvert traversing north-south beneath Hollister Road. The Los Carneros Wetland serves as an approved detention area and bio-filter for stormwater flows from the existing Willow Springs I and II developments, and the Project. Refer to the Preliminary Hydraulic Report and Preliminary Stormwater Control Plan (MAC Design, 2014) and Environmental Impact Report Section 4.8, *Hydrology and Water Quality,* for additional information regarding Project drainage.

General Plan Policies

Below is a summary of the biological resource policies in the CE that apply to the Project; full text of the biological resource policies are included in Appendix A, *Regulatory Guidance.*

*Policy CE 1: Environmental Sensitive Habitats Area Designation and Policy***.** The key protections and guidelines are stated in Policy CE 1, which include the following provisions applicable to ESHA:

- No development, except as otherwise allowed by Policy CE 1 is allowed within ESHAs.
- A setback or buffer separating all permitted development from an adjacent ESHA is required and must meet the minimum width requirements identified in the Conservation Element.
- Where there are no feasible, less environmentally damaging alternatives, the following uses may be located in ESHAs and ESHA buffers provided that measures are implemented to avoid or lessen impacts to the maximum extent feasible: public road crossings, utility lines, resource restoration and enhancement, nature education, and biological research.
- Any land use, construction, grading, or removal of vegetation that is not specified in Policy CE 1 is prohibited.
- New development must be sited and designed to avoid impacts to ESHAs. If there are no feasible alternatives that can eliminate all impacts, the alternative with the fewest or least significant impacts will be selected. Any impacts that cannot be avoided must be fully mitigated. On-site mitigation will be given priority; off-site mitigation will be approved only when is it not feasible to mitigate fully on-site.
- Development adjacent to an ESHA must minimize impacts to habitat values or sensitive species in the ESHA area to the maximum extent feasible.
- ESHA buffers shall have native habitat to serve as transitional habitat and must be of sufficient size to ensure the biological integrity and preservation of the ESHA they are intended to protect.
- Development in or adjacent to ESHA is subject to the following standards:
    - Site designs shall preserve wildlife corridors or habitat networks (CE 1.9).
    - Land divisions for parcels (except for open space lots) shall be allowed only if the new lot(s) can be developed without building in an ESHA or ESHA buffer and without impacts to ESHAs related to fuel modification for fire safety purposes.
    - Site plans and landscaping shall be designed to protect ESHAs, with priority given to protecting, supporting, and enhancing wildlife habitat values. Planting of nonnative invasive species is prohibited in ESHAs and ESHA buffers.
    - All new development shall be sited and designed to minimize grading, alteration of natural landforms and physical features, and vegetation clearance in order to reduce or avoid soil erosion, creek siltation, increased runoff, and reduced infiltration of stormwater and to prevent net increases in baseline follows for any receiving water body.
    - Light and glare will be controlled and directed away from wildlife habitat. Exterior night lighting shall be minimized, restricted to low intensity fixtures, shielded, and directed away from ESHAs.

- Noise levels from new development should not exceed an exterior noise level of 60 Ldn at the habitat site. During construction, this level may be exceeded if it can be demonstrated that significant adverse impacts on wildlife will be avoided or will be temporary.
- All new development shall be sited and designed to minimize the need for fuel modification or weed abatement for fire safety in order to preserve natural vegetation in and adjacent to ESHAs.
- The timing of grading and construction activities shall be controlled to minimize potential disruption of wildlife during critical time periods such as nesting or breeding seasons.
- Grading, earthmoving, and vegetation clearance adjacent to an ESHA shall be prohibited during the rainy season, generally from November 1 to March 31, except where necessary to protect or enhance the ESHA or to remediate hazardous flooding hazardous geologic conditions.
- In areas not adjacent to ESHAs where grading may be allowed, erosion control measures shall be implemented prior to and concurrent with all grading operations.

Additionally, the ESHA Goleta Overlay (Inland Zoning Ordinance Section 35-250.B) and General Plan Policy 8.3 requires a biological report for applications application with ESHA on-site, and includes specific conditions that may be placed on a project (e.g., deed restrictions, vegetation replacement). While not mapped under General Plan Figure 4.1, wildlife corridors are protected under CE policy 1.9. Wildlife corridors have been identified on the Project site, as discussed under Section 4.4 (above).

Policy CE 2: Protection of Creek and Riparian Areas. Policy CE 2.2, designated Streamside Protection Areas (SPA), requires a 100-foot buffer from Los Carneros Creek, as it is identified as creeks as shown in Figure 4.1 (Figure 4). SPA buffers may be adjusted based on a site-specific recommendation to the City. Section 4.3 of the EIR includes a buffer recommendation from off-site Los Carneros Creek.

Policy CE 3: Protection of Wetland. The off-site Los Carneros Wetland, which was previously in identified as an USACE wetland (i.e., hydrophytic vegetation, hydrology, and soils) is protected under Policy CE 3.2, as analyzed under EIR Section 4.3.

Policy CE 8: Protection of Special-Status Species. Nesting and roosting habitat for raptors are protected as ESHA in the under Policy CE 8. Policy CE 8.4 requires protection of protected raptors through the establishment of buffers around historic and active nests when feasible. No historical raptor nests are mapped nor were raptor nests observed in suitable eucalyptus tree habitat; therefore raptor nest ESHA is not present. Policy CE 8.3 requires a site-specific biological study, with specific ESHA mapping requirements.

Policy CE 9: Protection of Native Woodlands. Within the City there is currently no specific Tree Protection Plan or Ordinance adopted. Protection of trees within the City is regulated by Section 4.0, CE 9 of the General Plan, the Goleta Municipal Code Appendix A Grading Ordinance Guidelines for Native Oak Tree Removal (GMC), and the Draft *State of the Goleta Urban Forest Report: An Urban Resource Assessment for the City of Goleta* (dated November 17, 2009; herein referred to as the Goleta Urban Forest Report). The General Plan contains policies for the preservation of native trees including oaks (*Quercus* spp.), walnut (*Juglans californica*), California sycamore, cottonwood (*Populus* spp.), willows (*Salix* spp.) and other native trees found in ESHAs (General Plan Policy CE 9: Protection of Native Woodlands). However, per the GMC Part III – Program Basics trees voluntarily planted (e.g., landscape trees), regardless of species, are not protected. Landscape trees may be replaced. No trees are present on-site or are proposed for removal. Willows and eucalyptus tree present off-site in, but would not be directly affected by the Project.

Policy CE 10: Watershed Management and Water Quality. Provisions of Policy CE 10 that apply to the Project include Policy 10.3, Incorporation of Best Management Practices for Stormwater Management, CE 10.6, Stormwater Management Requirements, and Policy CE 10.7, Drainage and Stormwater Management Plans. Additionally, Policy CE 10, Landscaping to Control Erosion, specify erosion control landscaping specifics.

Other policies in the CE that do not apply to the Project provide additional detail project-level standards for terrestrial habitat areas (native grasslands, chaparral), and marine habitat areas beach and shoreline habitats.

4.6 CONSERVATION PLANS

No Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan has been adopted in this urbanized area.

5.0 IMPACT ANALYSIS AND MITIGATION MEASURES

Refer to Section 4.3, *Biological Resources*, of the Environmental Impact Report for a discussion of impact analysis and mitigation measures.

6.0 LIMITATIONS, ASSUMPTIONS, AND USE RELIANCE

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Biological surveys for the presence or absence of certain taxa have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis, or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind 5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

7.0 REFERENCES

American Ornithologists' Union (AOU). 2015. Check-list of North American Birds. Retrieved from: http://www.aou.org/checklist/north/

Associated Transportation Engineers. 2015. Heritage Ridge Project, City of Goleta California Updated Traffic Circulation, and Parking Study

Baldwin, B.G. (Ed.) et al., 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press. Berkeley, California.

Bowers, N., R. Bowers, & K. Kaufman. 2004. Mammals of North America.

Burt, W.H., and R.P. Grossenheider. 1980. A Field Guide to the Mammals of North American North of Mexico. The Peterson Field Guide Series.

Calflora. 2015. Information on wild California plants for conservation, education, and appreciation. Berkeley, CA. Retrieved from: http://www.calflora.org/

[CDFW] California Department of Fish and Wildlife. 2015a. California Natural Diversity Database, Rarefind V. 5.

CDFW. 2015b. Special Animals List. Biogeographic Data Branch, California Natural Diversity Database. October 2015.

CDFW. 2015c. Biogeographic Information and Observation System (BIOS). Retrieved from http://bios.dfg.ca.gov

CDFW. 2015d. Special Vascular Plants, Bryophytes, and Lichens List. Biogeographic Data Branch, California Natural Diversity Database. October 2015.

California Department of Transportation and City of Goleta. July 2010. Ekwill Street and Fowler Road Extensions Project NES.

[CAL-IPC] California Invasive Plant Council. October, 2015. California Invasive Plant Inventory Database.

[CNPS] California Native Plant Society. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). CNPS, Sacramento, CA. Retrieved from http://www.rareplants.cnps.org.

Dudek. 2014a. Technical Review of Coastal Sage Scrub (CSS) Environmentally Sensitive Habitat Area (ESHA) for the North Willow Springs Project.

Dudek. 2014b. Wildlife Corridor Analysis for the Heritage Ridge Project.

Dunk, J.R. 1995. White-tailed Kite (Elanus leucurus). In Birds of North American Online, A. Poole, ed. Ithaca, NY: Cornell Laboratory of Ornithology. Accessed at bna.birds.cornell.edu/bna/species/178 in October, 2015.

Goleta, City of. 2004. Background Report #18: Biological Resources.

Goleta, City of. 2006. Final Goleta General Plan / Coastal Land Use Plan Environmental Impact Report (SCH # 2005031151)

Goleta, City of. November, 2009. City of Goleta General Plan / Coastal Land Use Plan.

Goleta, City of. 2012. Willow Springs II Final Environmental Impact Report (SCH# 2010031059) City of May, 2012.

Goleta, City of. 2014. Village at Los Carneros Project Final Environmental Impact Report SCH# 2011111001. June, 2014

[GSEMP] Goleta Slough Ecosystem Management Plan, December 1997.

Hawbecker, A. C. 1942. A life history study of the white-tailed kite. Condor 44: 267-276.

Hoagland, S. 2011. Habitat Linkage Project.

Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Wildlife, Nongame Heritage Program. 156 pgs.

Holmgren, M. A. 2000. White-tailed Kites Near Orcutt in September 1999 and The Protection Environment for Kites in Santa Barbara County, California.

Holmgren, M.A. 2011. White-tailed Kite Mid-season Summary. Post to SB Co Birding email list.

Lehman, P. E. "The Birds of Santa Barbara County, California", Revised edition, April 2015, available at https://sites.google.com/site/lehmanbosbc/. Original edition: The Vertebrate Museum, University of California, Santa Barbara, 1994.

Leydecker, A. 2006. The Goleta Slough Watershed, A review of data collected from October 2005 through September 2006 by Santa Barbara Channelkeeper's Goleta Stream Team.

Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. The National Wetland Plant List: 2014 Update of Wetland Ratings. Phytoneuron 2014-41: 1-42.

MAC Design Associates. 2014. Preliminary Hydraulic Report for North Willow Springs.

MAC Design Associates. 2014. Preliminary Stormwater Control Plan.

Meade, D.E. 1999. Monarch Butterfly Overwintering Sites in Santa Barbara County California.

Millikan and Lewis. 2011. The Birds of Lake Carneros

National Audubon Society. 2015. Christmas Bird Count Historical Results. Accessed at http://birds.audubon.org/historical-results in October 2015.

[NOAA] National Oceanic and Atmospheric Administration. 2015. Retrieved from http://www.weather.gov/

Oberhauser, K., Solensky, M. 2004. The Monarch Butterfly Biology and Conservation.

Santa Barbara, City of. 2015. Draft PROGRAM ENVIRONMENTAL IMPACT REPORT On the Proposed Airport Master Plan. August 2015.

Santa Barbara, County of. 1993. Goleta Community Plan.

Santa Barbara, County of. 2010. Staff Report, Western Goleta Slough Restoration – CDFG East.

Sawyer, J. O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, California.

Spencer, et al. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California.

Stebbins, R. C. 2003. A Field Guide to Western Reptiles and Amphibians. 2nd ed. Houghton-Mifflin Company. Boston, Massachusetts.

Stendell, R. C. 1972. The occurrence, food habits, and nesting strategy of White-tailed Kites in relation to a fluctuating vole population. Phd Thesis. Univ. of California, Berkeley.

True Nature. 2014. Preliminary Landscape Plan, Heritage Ridge

University of California, Santa Barbara; Santa Barbara, County of; Goleta, City of 2004. Draft Ellwood-Devereux Coast Open Space and Habitat Management Plan March 2004.

[USACE] U.S Army Corps of Engineers. 1995. 404 Permit No. 95-50087-DJC.

United States Department of Agricultural, Natural Resources Conservation Service. 2015a. Web Soil Survey. Retrieved from http://websoilsurvey.nrcs.usda.gov/app/.

United States Department of Agriculture, Natural Resources Conservation Service. 2015b. Lists of Hydric Soils. National Cooperative Soil Survey, U.S. Department of Agriculture. Accessed via: http://soils.usda.gov/use/hydric/.

[USFWS] United States Fish and Wildlife Service. 1973. The Endangered Species Act of 1973, as amended (16 U.S.C 1531 et seq.).

USFWS. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants. January 2000.

USFWS. 2015a. Critical Habitat Portal. Available at: http://criticalhabitat.fws.gov

USFWS. 2015b. Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested. Retrieved from: http://www.fws.gov/sacramento/es/spp_lists/auto_list.cfm

URS. March, 2014. Biological Resources Report for the Ekwill Street and Fowler Road Extension Project.

Western Regional Climate Center. 2015. Climate of California. Retrieved from http://www.wrcc.dri.edu/narratives/CALIFORNIA.htm

Zeiner, D., W.F. Laudenslayer, Jr., and K.E. Mayer (May 1988). California's Wildlife. California Statewide Wildlife Habitat Relationship System, Volumes I, II, & III. California Department of Fish and Wildlife.

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Appendix A

Regulatory Guidance

APPENDIX A: REGULATORY SETTING

Special-status habitats are vegetation types, associations, or sub-associations that support concentrations of special-status plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife.

Listed species are those taxa that are formally listed as endangered or threatened by the federal government (e.g. U.S. Fish and Wildlife Service [USFWS]), pursuant to the Federal Endangered Species Act (FESA) or as endangered, threatened, or rare (for plants only) by the State of California (i.e. California Fish and Game Commission), pursuant to the California Endangered Species Act or the California Native Plant Protection Act. Some species are considered rare (but not formally listed) by resource agencies, organizations with biological interests/expertise (e.g. Audubon Society, CNPS, The Wildlife Society), and the scientific community.

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the Project site include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- Regional Water Quality Control Board (waters of the State);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- California Department Fish and Wildlife (riparian areas and other waters of the State, state-listed species);
- City of Goleta

U.S. Army Corps of Engineers. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has authority to regulate activities that could discharge fill of material or otherwise adversely modify wetlands or other "waters of the United States." Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters. The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any fill or adverse modification of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through compensatory mitigation involving creation or enhancement of similar habitats.

Regional Water Quality Control Board. The State Water Resources Control Board (SWRCB) and the local Central Coast Regional Water Quality Control Board (RWQCB) have jurisdiction over "waters of the State," pursuant to the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The Central Coast RWQCB enforces actions under this general order for isolated

waters not subject to federal jurisdiction, and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the Clean Water Act for waters subject to federal jurisdiction.

United States Fish and Wildlife Service (USFWS). The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 et seq.). The USFWS generally implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadramous species. Projects that would result in "take" of any federally listed threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

California Department of Fish and Wildlife (CDFW). The CDFW derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened, endangered or fully protected species. Take under CESA is restricted to direct mortality of a listed species and does not prohibit indirect harm by way of habitat modification. The CDFW also prohibits take for species designated as Fully Protected under the Code.

California Fish and Game Code sections 3503, 3503.5, and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs.

Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands. The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of plant.

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 *et seq.*). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant is growing is required to notify the department

at least 10 days in advance of changing the land use to allow for salvage of plant. Special status plant species are given a California Rare Plant Rank (RPR) code. The code definitions are:

- List 1A = Plants presumed extinct in California;
- List 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);
- List 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);
- List 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);
- List 2 = Rare, threatened or endangered in California, but more common elsewhere;
- List 3 = Plants needing more information (most are species that are taxonomically unresolved; some species on this list meet the definitions of rarity under CNPS and CESA);
- List 4.2 = Plants of limited distribution (watch list), fairly endangered in California (20-80% occurrences threatened); and
- List 4.4= Plants of limited distribution (watch list), not very endangered in California (<20% occurrences threatened or no current threats known).

Perennial and intermittent streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 et seq. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over work within the stream zone (which could extend to the 100-year flood plain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

Goleta Slough Ecosystem Management Plan (GSEMP). The Goleta Slough Ecosystem Management Plan provides a comprehensive framework for ecosystem management and impact mitigation within the Goleta Slough Ecosystem. The policies of the Management Plan are advisory and are no more restrictive than the policies of the regulatory agencies that retain control over the Ecosystem. The Plan strives to balance protecting and enhancing wetland habitats while accommodating existing land uses. It also recognizes the need to balance the existing diversity of land uses with protection and enhancement of natural and human values that are provided within the Ecosystem. The Goleta Slough Ecosystem Management Area is comprised of all areas currently or historically within the tidally influenced basin of the Goleta Slough, as well as contiguous freshwater wetland habitats and upland habitats. While the project site apparently lies outside of the GSEMP boundary, the GSEMP is included herein because of the project's potential to result in indirect impacts on the Goleta Slough Ecosystem.

City of Goleta. Natural resources within the Goleta city limits are regulated according to the General Plan as summarized above under Section 4.3 of the EIR. The General Plan includes policies that protect and preserve biological resources within the City by designating specific resources and areas as protected, including Environmentally Sensitive Habitat Areas (ESHA), restricting activities and uses in protected areas, providing for the management of the resources on City lands, specifying impact avoidance and mitigation requirements for types of activities and by type of biological resource, and providing guidance for development and conservation decisions over the long-term. The policies anticipate the potential impacts to biological resources from the land uses and activities that will occur under the General Plan and serve to avoid, reduce, and/or mitigate those impacts. The key policies regarding biological resources are in the Conservation, Open Space, and Land Use Elements.

The CE contains the following policies applicable to project:

CE 1.1 Definition of Environmentally Sensitive Habitat Areas. [GP/CP] ESHAs shall include, but are not limited to, any areas that through professional biological evaluation are determined to meet the following criteria:

a. Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and that could be easily disturbed or degraded by human activities and developments.
b. Any area that includes habitat for species and plant communities recognized as threatened or endangered by the state or federal governments; plant communities recognized by the State of California (in the Terrestrial Natural Communities Inventory) as restricted in distribution and very threatened; and those habitat types of limited distribution recognized to be of particular habitat value, including wetlands, riparian vegetation, eucalyptus groves associated with monarch butterfly roosts, oak woodlands, and savannas.
c. Any area that has been previously designated as an ESHA by the California Coastal Commission, the California Department of Fish and Game, City of Goleta, or other agency with jurisdiction over the designated area.

CE 1.2 Designation of Environmentally Sensitive Habitat Areas. [GP/CP] ESHAs in Goleta are generally shown in Figure 4-1, and Table 4-2 provides examples of the ESHAs and some locations of each. The provisions of this policy shall apply to all designated ESHAs. ESHAs generally include but are not limited to the following:

a. Creek and riparian areas.
b. Wetlands, such as vernal pools.
c. Coastal dunes, lagoons or estuaries, and coastal bluffs/coastal bluff scrub.
d. Beach and shoreline habitats.
e. Marine habitats.
f. Coastal sage scrub and chaparral.
g. Native woodlands and savannahs, including oak woodlands.
h. Native grassland.
i. Monarch butterfly aggregation sites, including autumnal and winter roost sites, and related habitat areas.

CE 1.6 Protection of ESHAs. [GP/CP] ESHAs shall be protected against significant disruption of habitat values, and only uses or development dependent on and compatible with maintaining such resources shall be allowed within ESHAs or their buffers. The following shall apply:

a. No development, except as otherwise allowed by this element, shall be allowed within ESHAs and/or ESHA buffers.
b. A setback or buffer separating all permitted development from an adjacent ESHA shall be required and shall have a minimum width as set forth in subsequent policies of this element. The purpose of such setbacks shall be to prevent any degradation of the ecological functions provided by the habitat area.
c. Public accessways and trails are considered resource-dependent uses and may be located within or adjacent to ESHAs. These uses shall be sited to avoid or minimize impacts on the resource to the maximum extent feasible. Measures—such as signage, placement of boardwalks, and limited fencing or other barriers—shall be implemented as necessary to protect ESHAs.
d. The following uses and development may be allowed in ESHAs or ESHA buffers only where there are no feasible, less environmentally damaging alternatives and will be subject to requirements

for mitigation measures to avoid or lessen impacts to the maximum extent feasible: 1) public road crossings, 2) utility lines, 3) resource restoration and enhancement projects, 4) nature education, 5) biological research, and 6) Public Works projects as identified in the Capital Improvement Plan, only where there are no feasible, less environmentally damaging alternatives.

e. If the provisions herein would result in any legal parcel created prior to the date of this plan being made unusable in its entirety for any purpose allowed by the land use plan, exceptions to the foregoing may be made to allow a reasonable economic use of the parcel. Alternatively, the City may establish a program to allow transfer of development rights for such parcels to receiving parcels that have areas suitable for and are designated on the Land Use Plan map for the appropriate type of use and development.

CE 1.7 Mitigation of Impacts to EHSAs. [GP/CP] New development shall be sited and designed to avoid impacts to ESHAs. If there is no feasible alternative that can eliminate all impacts, then the alternative that would result in the fewest or least significant impacts shall be selected. Any impacts that cannot be avoided shall be fully mitigated, with priority given to on-site mitigation. Off-site mitigation measures shall only be approved when it is not feasible to fully mitigate impacts on site. If impacts to on-site ESHAs occur in the Coastal Zone, any off-site mitigation area shall also be located within the Coastal Zone. All mitigation sites shall be monitored for a minimum period of 5 years following completion, with changes made as necessary based on annual monitoring reports. Where appropriate, mitigation sites shall be subject to deed restrictions. Mitigation sites shall be subject to the protections set forth in this plan for the habitat type unless the City has made a specific determination that the mitigation is unsuccessful and is to be discontinued.

CE 1.8 ESHA Buffers. [GP/CP] Development adjacent to an ESHA shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation shall be provided in buffer areas to serve as transitional habitat. All buffers shall be of a sufficient size to ensure the biological integrity and preservation of the ESHA they are designed to protect.

CE 1.9 Standards Applicable to Development Projects. [GP/CP] The following standards shall apply to consideration of developments within or adjacent to ESHAs:

a. Site designs shall preserve wildlife corridors or habitat networks. Corridors shall be of sufficient width to protect habitat and dispersal zones for small mammals, amphibians, reptiles, and birds.
b. Land divisions for parcels within or adjacent to an ESHA shall only be allowed if each new lot being created, except for open space lots, is capable of being developed without building in any ESHA or ESHA buffer and without any need for impacts to ESHAs related to fuel modification for fire safety purposes.
c. Site plans and landscaping shall be designed to protect ESHAs. Landscaping, screening, or vegetated buffers shall retain, salvage, and/or reestablish vegetation that supports wildlife habitat whenever feasible. Development within or adjacent to wildlife habitat networks shall incorporate design techniques that protect, support, and enhance wildlife habitat values. Planting of nonnative, invasive species shall not be allowed in ESHAs and buffer areas adjacent to ESHAs.
d. All new development shall be sited and designed so as to minimize grading, alteration of natural landforms and physical features, and vegetation clearance in order to reduce or avoid soil erosion, creek siltation, increased runoff, and reduced infiltration of stormwater and to prevent net increases in baseline flows for any receiving water body. Light and glare from new

development shall be controlled and directed away from wildlife habitats. Exterior night lighting shall be minimized, restricted to low intensity fixtures, shielded, and directed away from ESHAs.

e. All new development should minimize potentially significant noise impacts on special-status species in adjacent ESHAs.
f. All new development shall be sited and designed to minimize the need for fuel modification, or weed abatement, for fire safety in order to preserve native and/or nonnative supporting habitats. Development shall use fire resistant materials and incorporate alternative measures, such as firewalls and landscaping techniques, that will reduce or avoid fuel modification activities.
g. The timing of grading and construction activities shall be controlled to minimize potential disruption of wildlife during critical time periods such as nesting or breeding seasons.
h. Grading, earthmoving, and vegetation clearance adjacent to an ESHA shall be prohibited during the rainy season, generally from November 1 to March 31, except as follows: 1) where erosion control measures such as sediment basins, silt fencing, sandbagging, or installation of geofabrics have been incorporated into the project and approved in advance by the City; 2) where necessary to protect or enhance the ESHA itself; or 3) where necessary to remediate hazardous flooding or geologic conditions that endanger public health and safety.
i. In areas that are not adjacent to ESHAs, where grading may be allowed during the rainy season, erosion control measures such as sediment basins, silt fencing, sandbagging, and installation of geofabrics shall be implemented prior to and concurrent with all grading operations.

CE 1.10 Management of ESHAs. [GP/CP] The following standards shall apply to the ongoing management of ESHAs:

a. The use of insecticides, herbicides, artificial fertilizers, or other toxic chemical substances that have the potential to degrade ESHAs shall be prohibited within and adjacent to such areas, except where necessary to protect or enhance the ESHA itself.
b. The use of insecticides, herbicides, or other toxic substances by City employees and contractors in construction and maintenance of City facilities and open space lands shall be minimized.
c. Mosquito abatement within or adjacent to ESHAs shall be limited to the implementation of the minimum measures necessary to protect human health and shall be undertaken in a manner that minimizes adverse impacts to the ESHAs.
d. Weed abatement and brush-clearing activities for fire safety purposes shall be the minimum that is necessary to accomplish the intended purpose. Techniques shall be limited to mowing and other low-impact methods such as hand crews for brushing, tarping, and hot water/foam for weed control. Disking shall be prohibited.
e. Where there are feasible alternatives, existing sewer lines and other utilities that are located within an ESHA shall be taken out of service, abandoned in place, and replaced by facilities located outside the ESHA to avoid degradation of the ESHA resources, which could be caused by pipeline rupture or leakage and by routine maintenance practices such as clearing of vegetation.
f. Removal of nonnative invasive plant species within ESHAs may be allowed and encouraged, unless the nonnatives contribute to habitat values.
g. The following flood management activities may be allowed in creek and creek protection areas: desilting, obstruction clearance, minor vegetation removal, and similar flood management methods.

CE 2.1 Designation of Protected Creeks. [GP/CP] The provisions of this policy shall apply to creeks shown in Figure 4-1. These watercourses and their associated riparian areas are defined as ESHAs. They serve as habitat for fish and wildlife, provide wildlife movement corridors, provide for the flow of

stormwater runoff and floodwaters, and furnish open space and passive recreational areas for city residents.

CE 2.2 Streamside Protection Areas. [GP/CP] A streamside protection area (SPA) is hereby established along both sides of the creeks identified in Figure 4-1. The purpose of the designation shall be to preserve the SPA in a natural state in order to protect the associated riparian habitats and ecosystems. The SPA shall include the creek channel, wetlands and/or riparian vegetation related to the creek hydrology, and an adjacent upland buffer area. The width of the SPA upland buffer shall be as follows:

h. The SPA upland buffer shall be 100 feet outward on both sides of the creek, measured from the top of the bank or the outer limit of wetlands and/or riparian vegetation, whichever is greater. The City may consider increasing or decreasing the width of the SPA upland buffer on a case-by-case basis at the time of environmental review. The City may allow portions of a SPA upland buffer to be less than 100 feet wide, but not less than 25 feet wide, based on a site-specific assessment if (1) there is no feasible alternative siting for development that will avoid the SPA upland buffer; and (2) the project's impacts will not have significant adverse effects on streamside vegetation or the biotic quality of the stream.
i. If the provisions above would result in any legal parcel created prior to the date of this plan being made unusable in its entirety for any purpose allowed by the land use plan, exceptions to the foregoing may be made to allow a reasonable economic use of the parcel, subject to approval of a conditional use permit.

CE 3.1 Definition of Wetlands. [GP/CP] Wetlands are defined as any area that meets the definition of a wetland as defined by the California Coastal Commission, California Department of Fish and Game, and U.S. Fish and Wildlife Service. The most protective of definitions shall be applied and used to determine the boundary of a wetland. The City of Goleta uses the identification of a single indicator (soil, hydrology, or plants) to determine the boundary of a wetland.

CE 3.2 Designation of Wetland ESHAs. [GP/CP] Wetland ESHAs are included on Figure 4-1. In the Coastal Zone, wetlands are lands that may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. Goleta's wetlands are associated with small lagoons at the mouths of Bell Canyon and Tecolote Creeks, vernal pools, and freshwater marshes and ponds or impoundments, such as Lake Los Carneros. All wetlands are defined as ESHAs. Any unmapped areas that meet the criteria identified in CE 3.1 are wetlands and shall be granted all of the protections for wetlands set forth in this plan.

CE 3.4 Protection of Wetlands in the Coastal Zone. [CP] The biological productivity and the quality of wetlands shall be protected and, where feasible, restored in accordance with the federal and state regulations and policies that apply to wetlands within the Coastal Zone. Only uses permitted by the regulating agencies shall be allowed within wetlands. The filling, diking, or dredging of open coastal waters, wetlands, estuaries, and lakes is prohibited unless it can be demonstrated that:

a. There is no feasible, environmentally less damaging alternative to wetland fill.
b. The extent of the fill is the least amount necessary to allow development of the permitted use.
c. Mitigation measures have been provided to minimize adverse environmental effects.
d. The purposes of the fill are limited to: incidental public services, such as burying cables or pipes; restoration of wetlands; and nature study, education, or similar resource-dependent activities.

A wetland buffer of a sufficient size to ensure the biological integrity and preservation of the wetland shall be required. Generally the required buffer shall be 100 feet, but in no case shall wetland buffers be less than 50 feet. The buffer size should take into

CE 3.5 Protection of Wetlands Outside the Coastal Zone. [GP] The biological productivity and the quality of inland wetlands shall be protected and, where feasible, restored. The filling of wetlands outside the Coastal Zone is prohibited unless it can be demonstrated that:

a. The wetland area is small, isolated, not part of a larger hydrologic system, and generally lacks productive or functional habitat value.
b. The extent of the fill is the least amount necessary to allow reasonable development of a use allowed by the Land Use Element.
c. Mitigation measures will be provided to minimize adverse environmental effects, including restoration or enhancement of habitat values of wetlands at another location on the site or at another appropriate offsite location within the City.

A wetland buffer of a sufficient size to ensure the biological integrity and preservation of the wetland shall be required. A wetland buffer shall be no less than 50 feet. The buffer size should take into consideration the type and size of the development, the sensitivity of the wetland resources to detrimental edge effects of the development to the resources, natural features such as topography, the functions and values of the wetland and the need for upland transitional habitat. The buffer area shall serve as transitional habitat with native vegetation and shall provide physical barriers to human intrusion.

CE 4.1 Definition of Habitat Area. [GP/CP] The monarch butterfly is recognized as a California and Goleta special resource. Although the species is not threatened with extinction, its autumnal and winter aggregation sites, or roosts, are especially vulnerable to disturbance. Sites that provide the key elements essential for successful monarch butterfly aggregation areas and are locations where monarchs have been historically present shall be considered ESHAs. These elements include stands of eucalyptus or other suitable trees that offer shelter from strong winds and storms, provide a microclimate with adequate sunlight, are situated near a source of water or moisture, and that provide a source of nectar to nourish the butterflies.

*CE 4.2 Designation of Monarch Butterfly ESHAs. [GP/CP***]** Existing and known historical monarch roost sites, as shown on Figure 4-1, are hereby designated as ESHAs. These include about 20 known roosts, eight of which comprise the Ellwood Complex, a series of sites within a network consisting of eucalyptus groves and windrows interspersed by open fields and crossed by small creeks. This network includes several separate but interconnected autumnal and winter roost sites. The Ellwood Main site, the largest roost in Santa Barbara County and one of the largest in the state, occupies a site along Devereux Creek in the Sperling Preserve, a City-owned tract situated near the coastal bluffs in western Goleta.

CE 4.3 Site-Specific Studies and Unmapped Monarch ESHAs. [GP/CP] Any area not designated on Figure 4-1 that is determined by a site-specific study to contain monarch habitats, including autumnal and winter roost sites, shall be granted the same protections as if the area was shown on the figure. Proposals for development on sites shown on this figure or where there is probable cause to believe that monarch habitats may exist shall be required to provide a site-specific study.

CE 4.4 Protection of Monarch Butterfly ESHAs. [GP/CP] Monarch butterfly ESHAs shall be protected against significant disruption of habitat values, and only uses or development dependent on

and compatible with maintaining such resources shall be allowed within these ESHAs or their buffer areas. The following standards shall apply:

a. No development, except as otherwise allowed by this policy, shall be allowed within monarch butterfly ESHAs or ESHA buffers.
b. Since the specific locations of aggregation sites may vary from one year to the next, the focus of protection shall be the entire grove of trees rather than individual trees that are the location of the roost.
c. Removal of vegetation within monarch ESHAs shall be prohibited, except for minor pruning of trees or removal of dead trees and debris that are a threat to public safety.
d. Public accessways are considered resource-dependent uses and may be located within a monarch ESHA or its buffer; however, such accessways shall be sited to avoid or minimize impacts to aggregation sites.
e. Interpretative signage is allowed within a monarch ESHA or its buffer, but shall be designed to be visually unobtrusive.
f. Butterfly research, including tree disturbance or other invasive methods, may be allowed subject to City approval of a permit.

CE 4.5 Buffers Adjacent to Monarch Butterfly ESHAs. [GP/CP] A buffer of a sufficient size to ensure the biological integrity and preservation of the monarch butterfly habitat, including aggregation sites and the surrounding grove of trees, shall be required. Buffers shall not be less than 100 feet around existing and historic roost sites as measured from the outer extent of the tree canopy. The buffer area shall serve as transitional habitat with native vegetation and shall provide physical barriers to human intrusion. The buffer may be reduced to 50 feet in circumstances where the trees contribute to the habitat but are not considered likely to function as an aggregation site, such as along narrow windrows. Grading and other activities that could alter the surface hydrology that sustains the groves of trees are prohibited within or adjacent to the buffer area.

CE 4.6 Standards Applicable to New Development Adjacent to Monarch ESHAs. [GP/CP] The following standards shall apply to consideration of proposals for new development adjacent to monarch ESHAs or ESHA buffers:

a. A site-specific biological study, prepared by an expert approved by the City who is qualified by virtue of education and experience in the study of monarch butterflies, shall be required to be submitted by the project proponent.
b. The study shall include preparation of a Monarch Butterfly Habitat Protection Plan, which at a minimum shall include: 1) the mapped location of the cluster of trees where monarchs are known, or have been known, to roost in both autumnal and over-wintering aggregations; 2) an estimate of the size of the population within the colony; 3) the mapped extent of the entire habitat area; and 4) the boundaries of the buffer zone around the habitat area.
c. A temporary fence shall be installed along the outer boundary of the buffer zone prior to and during any grading and construction activities on the site.
d. If an active roost or aggregation is present on the project site, any construction grading, or other development within 200 feet of the active roost, shall be prohibited between October 1 and March 1.

CE 8.3 Site-Specific Biological Resources Study. Any areas not designated on Figure 4-1 that meet the ESHA criteria for the resources specified in CE 8.1 shall be accorded the same protections as if the area were shown on the figure. Proposals for development on sites where ESHAs are shown on the

figure, or where there is probable cause to believe that an ESHA may exist, shall be required to provide the City with a site-specific biological study that includes the following information:

a. A base map that delineates topographic lines, parcel boundaries, and adjacent roads.
b. A vegetation map that 1) identifies trees or other sites that are existing or historical nests for the species of concern and 2) delineates other elements of the habitat such as roosting sites and foraging areas.
c. A detailed map that shows the conclusions regarding the boundary, precise location and extent, or current status of the ESHA based on substantial evidence provided in the biological studies.
d. A written report that summarizes the survey methods, data, observations, findings, and recommendations.

CE 8.4 Buffer Areas for Raptor Species. [GP/CP] Development shall be designed to provide a 100-foot buffer around active and historical nest sites for protected species of raptors when feasible. In existing developed areas, the width of the buffer may be reduced to correspond to the actual width of the buffer for adjacent development. If the biological study described in CE 8.3 determines that an active raptor nest site exists on the subject property, whenever feasible no vegetation clearing, grading, construction, or other development activity shall be allowed within a 300-foot radius of the nest site during the nesting and fledging season.

CE 9.1 Definition of Protected Trees. [GP/CP] New development shall be sited and designed to preserve the following species of native trees: oaks (*Quercus* spp.), walnut (*Juglans californica*), sycamore (*Platanus racemosa*), cottonwood (*Populus* spp.), willows (*Salix* spp.), or other native trees that are not otherwise protected in ESHAs, unless as otherwise allowed in CE 9.

CE 10.1 New Development and Water Quality. [GP/CP] New development shall not result in the degradation of the water quality of groundwater basins or surface waters; surface waters include the ocean, lagoons, creeks, ponds, and wetlands. Urban runoff pollutants shall not be discharged or deposited such that they adversely affect these resources.

CE 10.2 Siting and Design of New Development. [GP/CP] New development shall be sited and designed to protect water quality and minimize impacts to coastal waters by incorporating measures designed to ensure the following:

a. Protection of areas that provide important water quality benefits, areas necessary to maintain riparian and aquatic biota, and areas susceptible to erosion and sediment loss.
b. Limiting increases in areas covered by impervious surfaces.
c. Limiting the area where land disturbances occur, such as clearing of vegetation, cut-and-fill, and grading, to reduce erosion and sediment loss.
d. Limiting disturbance of natural drainage features and vegetation.

CE 10.3 Incorporation of Best Management Practices for Stormwater Management. [GP/CP] New development shall be designed to minimize impacts to water quality from increased runoff volumes and discharges of pollutants from nonpoint sources to the maximum extent feasible, consistent with the City's Storm Water Management Plan or a subsequent Storm Water Management Plan approved by the City and the Central Coast Regional Water Quality Control Board. Post construction structural BMPs shall be designed to treat, infiltrate, or filter stormwater runoff in accordance with applicable standards as required by law. Examples of BMPs include, but are not limited to, the following:

a. Retention and detention basins.

b. Vegetated swales.
c. Infiltration galleries or injection wells.
d. Use of permeable paving materials.
e. Mechanical devices such as oil-water separators and filters.
f. Revegetation of graded or disturbed areas.
g. Other measures as identified in the City's adopted Storm Water Management Plan and other City-approved regulations.

Appendix B

Site Photographs

Photograph 1. View north of the on-site native hydroseed area in the foreground, and the off-site eucalyptus trees and willow thickets past the UPPR tracks in the background.

Photograph 2. View south of coyote brush scrub, also designated by the City as ESHA and proposed to be removed through a General Plan Amendment, and the cultural resources fencing.

Photograph 3. View northeast in the fenced cultural resources area of non-native grasses and forbs in the foreground, and the coyote brush scrub in the background. The existing Willow Springs apartments are visible to the south.

Photograph 4. View from the existing Via Luisa entrance, looking southwest of the saltbush / coyote bush scrub. Yellow-blooming mustard is codominant. Camino Vista Road is visible.

Photograph 5. View of coyote brush scrub along the northern property line and the UPPR tracks, with off-site willow thickets in the background.

Appendix C

Floral and Faunal Compendium

Appendix C. Plant and Wildlife Species Observed Within the Project Site

Scientific Name	Common Name	Status	Native or Introduced
PLANTS			
Trees			
Nicotiana glauca	tree tobacco	-	Non-native
Myoporum laetum	false sandalwood		Non-native
Platanus racemosa	California Sycamore		Native (planted)
Salix lasiolepis	arroyo willow	-	Native
Shrubs			
Atriplex lentiformis	quailbush (saltbush)	-	Native
Artemisia californica	California sagebrush	-	Native
Baccharis pilularis	coyote brush	-	Native
Encelia californica	California brittlebush	-	Native
Ricinus communis	castor bean	-	Non-native
Herbs			
Ambrosia psilostachya	western ragweed	-	Native
Amaranthus albus	pigweed amaranth	-	Non-native
Brassica nigra	black mustard	-	Non-native
Brassica rapa	field mustard	-	Non-native
Bromus carinatus	California bromegrass	-	Native
Bromus diandrus	ripgut brome	-	Non-native
Bromus hordeaceus	soft chess	-	Non-native
Carduus pycnocephalus	Italian thistle	-	Non-native
Centaurea melitensis	tocalote	-	Non-native
Chenopodium sp.	goosefoot	-	Non-native
Conyza canadensis	Canada horseweed	-	Non-native
Cortaderia sp.	pampas grass species	-	Non-native
Calystegia macrostegia	morning glory	-	Native
Datura wrightii	jimson weed	-	Native
Deinandra fasciculata	common tarweed	-	Native
Elymus glaucus	Buckley blue wildrye	-	Native
Erodium botrys	long-beaked filaree	-	Non-native
Erodium cicutarium	red-stemmed filaree	-	Non-native
Eschscholzia californica	California poppy	-	Native
Festuca microstachys	small fescue	-	Native
Helminthotheca echioides	bristly ox-tongue	-	Non-native
Heterotheca grandiflora	telegraph weed	-	Native
Hordeum murinum	foxtail barley	-	Non-native
Lupinus sp.	Lupine species	-	Native
Malva parviflora	cheeseweed	-	Non-native
Malva nicaeensis	bull mallow	-	Non-native
Madia gracilis	gumweed	-	Native
Malacothrix saxatilis	cliff aster	-	Native
Marrubium vulgare	horehound	-	Non-native
Oxalis sp.	Sorrel species	-	Non-native
Plantago lanceolata	English plantain	-	Non-native
Polygonum aviculare ssp. *depressum*	common knotweed	-	Non-native
Pennisetum setaceum	fountaingrass	-	Non-native
Stipa miliacea	smilo grass	-	Non-native
Raphanus sativus	wild radish	-	Non-native

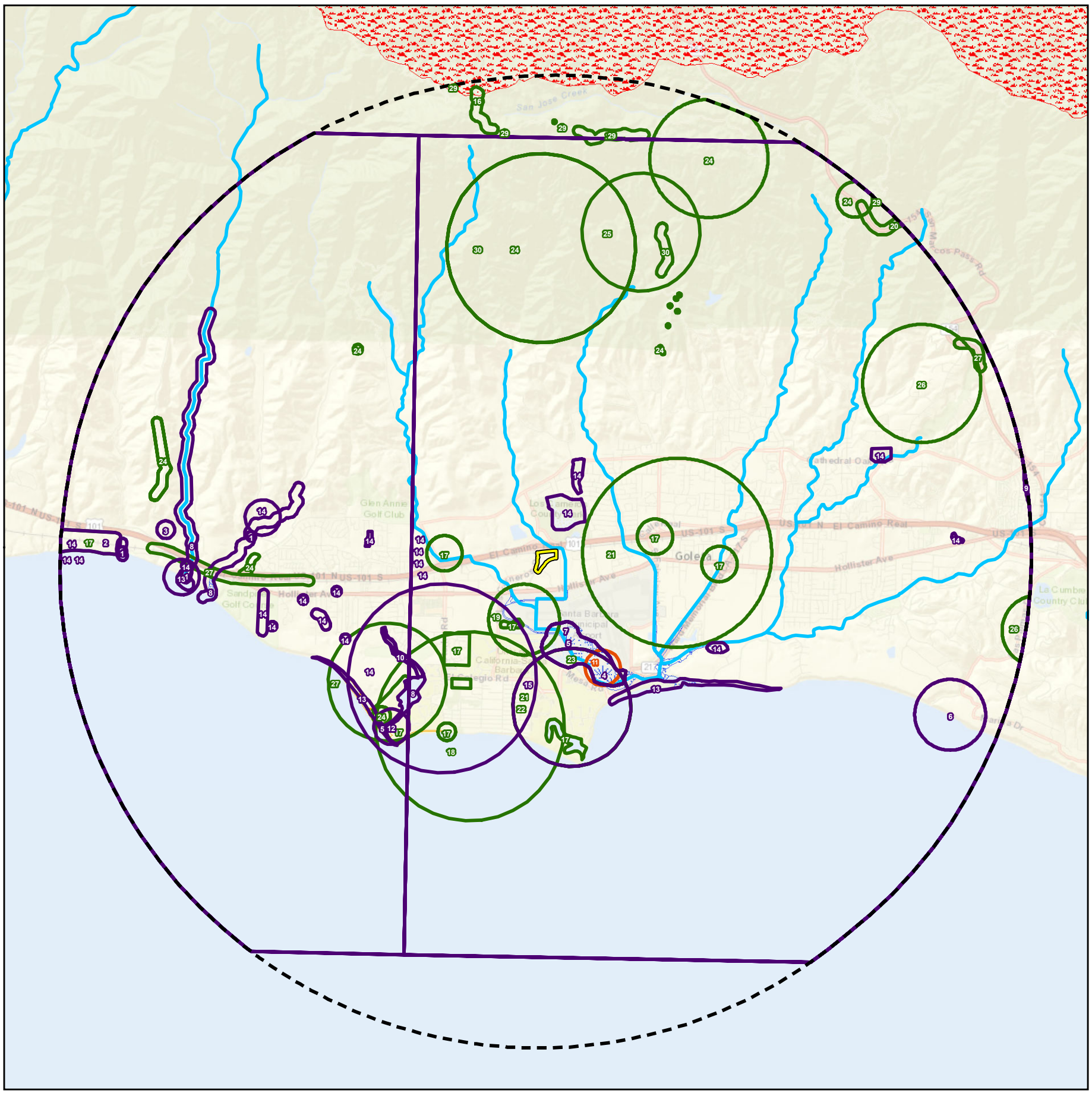
Appendix C. Plant and Wildlife Species Observed Within the Project Site

Scientific Name	Common Name	Status	Native or Introduced
Rumex crispus	curly dock	-	Non-native
Salsola tragus	Russian thistle	-	Non-native
Sisyrinchium bellum	western blue-eyed grass	-	Native
Stipa pulchra	purple needle grass	-	Native (hydroseed)
Stipa cernua	nodding needlegrass	-	Native (hydroseed)
Sonchus asper	prickly sow-thistle	-	Non-native
Solanum douglasii	Douglas' nightshade	-	Native
Xanthium strumarium	cocklebur	-	Native
Verbena lasiostachys	common vervain	-	Non-native
Vulpia myuros	rattail fescue	-	Non-native
WILDLIFE			
Birds			
Accipiter cooperii	Copper's hawk	SA	Native
Cathartes aura	turkey vulture	-	Native
Larus sp.	gull species	-	Native
Columba livia	rock pigeon	-	Non-native
Calypte anna	Anna's hummingbird	-	Native
Tyrannus vociferans	Cassin's kingbird	-	Native
Corvus brachyrhynchos	American crow	-	Native
Psaltriparus minimus	bushtit	-	Native
Baeolophus inornatus	oak titmouse	SA	Native
Mimus polyglottos	Northern mockingbird	-	Native
Geothlypis trichas	common yellowthroat	-	Native
Pipilo maculatus	spotted towhee	-	Native
Melozone crissalis	California towhee	-	Native
Melospiza melodia	song sparrow	-	Native
Haemorhous mexicanus	house finch	-	Native
Spinus psaltria	lesser goldfinch	-	Native
Reptiles			
Sceloporus occidentalis	coastal western fence lizard	-	Native
Mammals			
*Canis latrans**	coyote	-	Native
*Didelphis virginiana**	opossum	-	Native
*Lynx rufus**	bobcat	-	Native
*Mephitis mephitis**	striped skunk	-	Native
Otospermophilus beecheyi	California ground squirrel		Native
*Procyon lotor**	raccoon	-	Native
Sylvilagus bachmani	brush rabbit		Native

Source: Rincon, 2015.
*Observed Dudek, 2014. Refer to Appendix F

Appendix D

Special Status Species Evaluation Tables



Imagery provided by ESRI and its licensors © 2015.
Additional data provided by the:
California Natural Diversity Database, May 2015.
Critical Habitat, September 2015

0 0.6 1.2 Miles

N

Project Boundary
5 Mile Buffer

CNDDB

Animals
Plants
Natural Communities

Critical Habitat

California red-legged frog
Tidewater goby
Western snowy plover
Steelhead

1 - California red-legged frog
2 - white-tailed kite
3 - ferruginous hawk
4 - light-footed clapper rail
5 - western snowy plover
6 - bank swallow
7 - Belding's savannah sparrow
8 - tidewater goby
9 - Townsend's big-eared bat
10 - western pond turtle
11 - Southern Coastal Salt Marsh
12 - sandy beach tiger beetle
13 - globose dune beetle
14 - monarch butterfly
15 - mimic tryonia (=California brackishwater snail)
16 - slender silver moss
17 - southern tarplant
18 - Contra Costa goldfields
19 - Coulter's goldfields
20 - pale-yellow layia
21 - Coulter's saltbush
22 - Davidson's saltscale
23 - estuary seablite
24 - Santa Barbara honeysuckle
25 - Refugio manzanita
26 - mesa horkelia
27 - black-flowered figwort
28 - Santa Lucia dwarf rush
29 - late-flowered mariposa-lily
30 - Sonoran maiden fern

Project Vicinity CNDDB and Critical Habitat

Figure D

Table 1. Special Status Plant Species in Project Vicinity

Scientific Name	Fed/State ESA CRPR G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Rationale
Amsinckia douglasiana Douglas' fiddleneck	--/-- G3/S3.2 4.2	Annual herb; blooms March to May; cismontane woodland and valley and foothill grassland; usually on Monterey shale in dry areas.	None	Suitable habitat and soils not present on site. No CNDDB records within 5 miles.
Anemopsis californica yerba mansa	Locally Rare (GSEMP)	Marsh and creekside plant that is alkaline tolerant. Blooms in Spring. Tolerates alkaline soil, sand, clay, no drainage and seasonal flooding.	None	Suitable wetland habitat not present on site. Present at the Los Carneros Wetland.
Anomobryum julaceum slender silver moss	-- / -- 4.2 G4G5 / S2	Moss. Broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest. Moss which grows on damp rocks and soil; acidic substrates. Usually seen on roadcuts. 100-1000m (330-3280ft).	None	Suitable habitat not present on site.
Arctostaphylos refugioensis Refugio manzanita	-- / -- 1B.2 G2 / S2	Perennial evergreen shrub. Blooms Dec-May. Chaparral. On sandstone. 300-820m (985-2690ft).	None	Suitable habitat not present on site.
Atriplex coulteri Coulter's saltbush	--/ -- 1B.2 G2/S2	Perennial herb. Blooms Mar-Oct. Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. 10-440m (30-1445ft).	Low	Marginal habitat present on site. Known CNDDB occurrence 2-miles east of site. Known from the Goleta Slough. Not detected during surveys.
Atriplex serenana var. *davidsonii* Davidson's saltscale	--/ -- 1B.2 G5T1/S1	Annual herb. Blooms Apr-Oct. Coastal bluff scrub, coastal scrub. Alkaline soil. 3-250m (10-820ft).	Low	Marginal habitat present on site. Not detected during surveys. Not detected during surveys.
Calochortus fimbriatus late-flowered mariposa-lily	-- / -- 1B.2 G3 / S3	Perennial bulbiferous herb. Blooms June-Aug. Chaparral, cismontane woodland, riparian woodland. Dry, open coastal woodland, chaparral; on serpentine. 275-1905 m (900-6250ft).	None	Suitable habitat and serpentine soils not present on site.

Table 1. Special Status Plant Species in Project Vicinity

Scientific Name	Fed/State ESA CRPR G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Rationale
Centromadia parryi ssp. *australis* southern tarplant	--/ -- 1B.1 G3T2/S2	Annual herb. Blooms May-Nov. Marshes and swamps (margins), valley and foothill grassland. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. 0-425m (0-1395ft).	Low	No vernal pool habitat present on-site, marginal habitat off-site in Los Camaros Wetland. Multiple CNDDB occurrences greater than 1 mile east, west and south of the site near water. Known from the Goleta Slough 0.5 mile south. Not detected during surveys.
Horkelia cuneata var. *puberula* mesa horkelia	-- / -- 1B.1 G4T1 / S1	Perennial herb. Blooms Feb-Sept. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 70-810m (230-2655ft).	Low	Marginal habitat present on site. Not detected during surveys. Low potential to occur due to long history of disturbance. No CNDDB records within 5 miles.
Juncus luciensis Santa Lucia dwarf rush	-- / -- 1B.2 G2G3/ S2S3	Annual herb. Blooms Apr-Jul. Vernal pools, meadows, lower montane coniferous forest, chaparral, Great Basin scrub. Vernal pools, ephemeral drainages, wet meadow habitats and streamsides. 300-2040m (985-6690ft).	None	Suitable habitat not present on site.
Lasthenia conjugens Contra Costa goldfields	FE/ -- 1B.1 G1/S1	Annual herb. Blooms Mar-Jun. Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 1-470m (3-1540ft).	Low	Historical (1972) extirpated Project vicinity CNDDB record in on the Isla Vista bluffs. Marginal habitat present on site. Low potential to occur due to long history of disturbance. Not detected during surveys.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	--/ -- 1B.1 G4T2/S2	Annual herb. Blooms Feb-Jun. Coastal salt marshes, playas, valley and foothill grassland, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1400m (3-4595ft).	Low	Marginal grassland habitat present on site. Low potential to occur due to long history of disturbance. CNDDB (1982) occurrence 0.5 mile south of Project on opposite side of Hollister Avenue in the Goleta Slough.
Layia heterotricha pale-yellow layia	--/ -- 1B.1 G2/S2	Annual herb. Blooms Mar-Jun. Cismontane woodland, pinyon-juniper woodland, valley and foothill grassland. Alkaline or clay soils; open areas. 270-1365m (885-4480ft).	Low	Marginal habitat present on site. Low potential to occurdue to long history of disturbance. Not detected during surveys.

Table 1. Special Status Plant Species in Project Vicinity

Scientific Name	Fed/State ESA CRPR G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Rationale
Lonicera subspicata var. *subspicata* Santa Barbara honeysuckle	-- / -- 1B.2 G5T2/ S2	Perennial evergreen shrub. Blooms May-Feb. Chaparral, cismontane woodland, coastal scrub. 35-1000m (115-3280ft).	Low	Marginal habitat present on site. Low potential to occur due to long history of disturbance. Not detected during surveys.
Scrophularia atrata black-flowered figwort	-- / -- 1B.2 G2G3 / S2S3	Perennial herb. Blooms Mar-Jul. Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub. Sand, diatomaceous shales, and soils derived from other parent material; around swales and in sand dunes. 10-250m (30-820ft).	Low	Marginal habitat present on site. Low potential to occur due to long history of disturbance. Not detected during surveys.
Suaeda esteroa estuary seablite	-- / -- 1B.2 G3 / S2	Perennial herb. Blooms May-Jan. Marshes and swamps. Coastal salt marshes in clay, silt, and sand substrates. 0-5m (0-15ft).	None	Suitable habitat not present on site.
Thelypteris puberula var. *sonorensis* Sonoran Maiden fern	-- / -- 2B.2 G5T3 / S2.2?	Perennial rhizomatous herb. Blooms Jan-Sep. Meadows and seeps. Along streams, seepage areas. 50-550m (165-1805ft).	None	Suitable habitat not present on site.

Project Vicinity refers to within a 5 mile radius of site.
FE = Federally Endangered FT = Federally Threatened
SE = State Endangered ST = State Threatened SR = State Rare
G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3.
CRPR (CNPS California Rare Plant Rank):
1A=Presumed Extinct in California
1B=Rare, Threatened, or Endangered in California and elsewhere
2A=Plants presumed extirpated in California, but more common elsewhere
2B=Plants Rare, Threatened, or Endangered in California, but more common elsewhere
3=Need more information (a Review List)
4=Plants of Limited Distribution (a Watch List)
CRPR Threat Code Extension:
.1=Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2=Fairly endangered in California (20-80% occurrences threatened)
.3=Not very endangered in California (<20% of occurrences threatened)

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
Invertebrates				
Danaus plexippus Monarch butterfly	-- / -- -- G5 / S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Low	No suitable habitat present. Eucalyptus trees are approximately 100 feet north of the Project site, but the monarch butterfly host and food plants are absent from the Project site. There are no historical reports of monarch butterflies using these trees for roosting aggregations. Plants that would serve as food sources for monarch butterflies are absent from within the Project site.
Cicindela hirticollis gravida Sandy beach tiger beetle	-- / -- -- G5T2 / S1	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sands not affected by wave action.	None	Suitable habitat not present on site.
Coelus globosus Globose dune beetle	-- / -- -- G1 / S1	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico. Inhabits foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.	None	Suitable habitat not present on site.
Tryonia imitator Mimic tryonia (=California brackishwater snail)	-- / -- -- G2G3 / S2S3	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types; able to withstand a wide range of salinities.	None	Suitable habitat not present on site.
Fish				
Eucyclogobious newberryi	FE / -- SSC G3 / S2S3	Brackish water habitats along the Calif coast from Agua Hedionda Lagoon, San Diego Co. to mouth of Smith River. Found in shallow lagoons and lower stream reaches,	None	No habitat present on site, or anticipated or in channelized Los Carneros Creek. Critical habitat off-site downstream in Creek,

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
Tidewater goby		they need fairly still but not stagnant water and high oxygen levels.		south of holster Avenue.
Oncorhynchus mykiss irideus southern California DPS	FE/-- G5T2A/S2 SSC	Cold, clear waters in complex streams with riffles, pools, and sources of cover such as undercut banks, aquatic vegetation, submerged wood, etc.; connectivity to Pacific Ocean key to life cycle.	None	No habitat present on site or within channelized Los Carneros Creek. Los Carneros Creek is designated as critical habitat (South Coast Hydrologic Unit 3315). No CNDDB records within 5 miles.
Amphibians				
Rana draytonii California red-legged frog	FT / -- -- G2G3 / S2S3	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	None	Suitable habitat not present on site, Los Carneros creek does not provide a permanent water source. No watershed CNDDB records.
Reptiles				
Emys marmorata western pond turtle	-- / -- SSC G3G4 / S3	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	None	No suitable habitat on-site. Suitable ponding and basking sites off-site in Los Carneros Creek.
Thamnophis hammondii Two-striped garter snake	--/-- G3/S2 SSC	Streams or ponds having riparian or wetland vegetation; small mammal burrows are used for overwintering.	None	Suitable habitat not present on site, potential to occur off-site in Los Carneros Creek riparian area. No CNDDB records within 5 miles.
Birds				

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
Accipter cooperii Cooper's hawk	-- / -- WL G5 / S4	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also live oaks.	Low (foraging)	Observed foraging on-site during 2015 surveys. No suitable nesting habitat is present.
Accipiter striatus sharp-shinned hawk	-- / -- WL G5 / S4	Ponderosa pine, black oak, riparian deciduous, mixed conifer and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes, with plucking perches are critical requirements. Nests usually within 275 ft. of water.	Low (foraging)	No CNDDB records within 5 miles. EBird observations in 2012 and 2013 in Los Carneros Wetland near airport 0.25 mile south of site. Site is within winter migratory range.
Asio flammeus short-eared owl	-- / -- SSC G5 / S3	Uncommon and local winter visitant along the coast, where it formerly nested. Usually found in open areas with few trees, such as annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands	Low (foraging)	No CNDDB records within 5 miles. Observed roosting at the Los Carneros Wetlands, but as a rare vagrant (GSEMP). Potential visitant, transient, foraging only.
Asio otus Long-eared owl	-- / -- SSC G5 / S3	Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding. Riparian habitat required; also uses live oak thickets and other dense stands of trees.	Low (foraging)	No CNDDB records within 5 miles. Rare transient and winter visitant along the coast.
Agelaius tricolorr tri-colored blackbird	-- / SE SSC G2G3 / S1S2	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony. Formerly more common, now an uncommon and very local breeder in Santa Barbara County in dense stands of bulrushes and cattails.	None	No CNDDB records within 5 miles. Project site lacks suitable habitat.
Ammodramus savannarum grasshopper sparrow	-- / -- SSC G5 / S2	Uncommon and very local summer resident on grassy slopes and mesas west of the deserts.	Low (foraging)	Breeding localities include west of Goleta. Potential visitant, transient, foraging only. 2007 airport eBird records; 2015 and 2014 eBird

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
				sightings concentrated at the Elwood Open Space, four miles west.
Athene cunicularia burrowing owl	--/-- G4/S3 SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low (winter foraging)	Formerly a common breeder from coastal bluffs to foothills in Goleta area, now only an occasional winter visitor. No suitable habitat onsite due to the ongoing disturbance, lack ground squirrel burrows, and the site is fragmented and isolated from other foraging areas by development and infrastructure. Recent CNDDB (2004, 2006) Goleta overwintering records. Possible sighting by City staff west of Los Carneros Road in 2008. No CNDDB records within 5 miles.
Aquila chrysaetos golden eagle	--/-- G5/S3 FP,WL	Uncommon resident of mountainous and valley-foothill areas. Nesting occurs on cliff ledges and overhangs or in large trees. Foraging typically occurs in open terrain where small rodent prey is seen while soaring high above ground.	None	No suitable nesting habitat and Project site is likely too small and proximal to urban development to provide foraging habitat. No CNDDB records within 5 miles.
Baeolophus inornatus oak titmouse	--/-- G5/S3? SA	Resident from southern Oregon south to Baja California. Preferred habitats include live oaks and deciduous growth, including oak woodlands, streamside cottonwoods, forest edges, and oak-juniper woodlands.	Low (foraging)	No oak woodland on-site or in the Project vicinity. No CNDDB records within 5 miles. Detected on-site, expected to forage only.
Circus cyaneus northern harrier	-- / -- SSC G5 / S3	Fairly common winter visitant to open grasslands, agricultural fields, freshwater and coastal salt marshes,estuaries, open desert and brushlands.	Low (foraging)	Potentially a winter visitor at Goleta Slough, and may forage occasionally at the site, when present. No CNDDB records within 5 miles. EBird sightings throughout Goleta concentrated near the estuaries and golf course.
Chaetura vauxi	-- / --	Fairly common spring and fall transient in	Low (foraging)	No CNDDB records within 5 miles.

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
Vaux's swift	SSC G5 / S2S3	southern California, and rare and irregular winter visitant, primarily along the coast. Prefers redwood and Douglas-fir habitats with nest-sites in large hollow trees and snags, especially tall, burned out stubs.		Potential visitant, transient, foraging only.
Cypseloides niger black swift	-- / -- SSC G4 / S2	Breeds very locally in the Sierra Nevada and Cascade Range, the San Gabriel, San Bernardino, and San Jacinto Mts., and in coastal bluffs and mountains from San Mateo Co. south probably to San Luis Obispo Co. Nests in moist crevice or cave on sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons. Forages widely over many habitats.	Low (foraging)	No CNDDB records within 5 miles. EBird sightings on the outskirts of Goleta and in the Santa Ynez foothills.
Buteo regalis Ferruginous hawk	-- / -- WL G4 / S3S4	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon-juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	Low (foraging)	Marginally suitable foraging habitat on site. Suitable nesting habitat not present.
Charadrius alexandrinus nivosus Western snowy plover	FT / -- SSC G3T3 / S2	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	None	Suitable habitat not present on site.
Empidonax traillii extimus southwestern willow flycatcher	FE/SE -- G5T1T2/S1	Riparian woodlands in southern California, generally with dense shrubs and trees.	None	Suitable habitat not present on site, and off-site willow thickets are limited in acreage and isolated. No CNDDB records within 5 miles. No eBird records in the Goleta Valley or the South Coast.
Falco columbarius Merlin	-- / -- WL G5 / S3S4	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Low (foraging)	No CNDDB records within 5 miles. Reported at Lake Los Carneros. Not observed during site visit.

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
Icteria virens yellow-breasted chat	-- / -- SSC G5 / S3	Migratory birds that occasionally winter in coastal areas. Habitat consists of thick, shrubby areas such as abandoned farmlands where vegetative growth is abundant.	None	No CNDDB records within 5 miles. Reported from Tecolotito Creek in previous years. Riparian habitats not present on site, and off-site willow thickets are limited in acreage and isolated. .
Lanius ludovicianus loggerhead shrike	--/-- SSC G4/S4	Found in open grasslands with scattered perches of posts, wires, trees and scrub.	Low (foraging)	The relatively small size of the Project site and proximity to transportation infrastructure and urban development likely discourage this species from occurring. No CNDDB records within 5 miles. Ebird records at Lake Los Carneros and the Santa Barbara Airport.
Elanus coeruleus white-tailed kite	--/-- FP G5/S3	Grassland, sparse scrub, marshes or open woodland habitats often near agricultural areas. Nests are in isolated trees or forests.	Low (foraging)	Observed foraging on-site in 2010 (City of Goleta, 2011) and to the west of Los Carneros Road (City of Goleta 2014). White-tailed kites are commonly observed at the Santa Barbara Airport, and are documented as nesting at Lake Los Carneros. Not documented by CNDDB in the Project vicinity. Known roosts at Lake Los Carneros. Breed in oak woodlands and trees, which are not present on the project site. Eucalyptus windrow trees adjacent to the project site not suitable for roosting since subject to ongoing disturbance by US 101 and UPRR. Cyclically fluctuating depending on prey population.

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
Passerculus sandwichensis beldingi Belding's savannah sparrow	-- / SE -- G5T3 / S2	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in Salicornia on and about margins of tidal flats.	None	Suitable habitat not present on site.
Picoides nuttallii Nuttall's woodpecker	--/-- SA G5/SNR	Typically associated with oak trees and found in wooded canyons and foothills, groves and orchards.	None	No CNDDB records within 5 miles. No oak woodland habitat on-site or in the Project vicinity.
Rallus obsoletus levipes (=Rallus longirostris levipes) light-footed Ridgway's [clapper] rail	FE / SE FP G5T1T2 / S1	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on mollusks and crustaceans.	None	Suitable habitat not present on site.
Riparia riparia bank swallow	-- / ST SSC G5 / S2S3	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	None	Project vicinity CNDDB records are historical (1913, 1927). Suitable nesting habitat not present on site.
Setophaga petechia *(=Dendroica petechia brewsteri)* yellow warbler	-- / -- SSC G5 / S3S4	Inhabits riparian areas and nests in trees and shrubs of overgrown fields, pastures, shorelines, cultivated fields, orchards, roadsides, and suburban parks.	Low (foraging)	Marginally suitable habitat off- site in Los Carneros Creek riparian vegetation. No CNDDB records within 5 miles, recent (2013) observation one mile west of the Project site. Ebird records at Tecolotito Creek, Lake Los Carneros, and the Santa Barbara Airport.
Vireo bellii pusillus least Bell's vireo	FE/SE -- G5T2/S2	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, mesquite.	None	Suitable habitat not present on site, off-site willow thickets are isolated. No CNDDB records within 5 miles. No eBird records in the Goleta Valley or the South Coast. There are only two breeding season records for the south coast in recent decades. One of these, from the Santa Barbara Municipal

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
				Airport, involved a bird that was singing in willows along Los Carneros Creek in Goleta Slough, May 18–June 10, 2005 (City of Santa Barbara, 2015). No additional birds were detected that year, and the bird was not detected later in the season, despite additional visits.
Mammals				
Antrozous pallidus pallid bat	--/-- G5/S3 SSC	Deserts, grasslands, shrublands, woodlands, and forest. Most common in open, dry, habitats with rocky area for roosting. Roost must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low (foraging)	No CNDDB records within 5 miles. Marginally suitable foraging habitat on-site. Off-site woodland adjacent to railroad and US 101 is not suitable.
Corynorhinus townsendii Townsend's big-eared bat	-- / -- SSC G3G4 / S2S3	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Low (foraging)	CNDDB Record (1985) suitable habitat not present on site. Marginally suitable foraging habitat on site.
Eumops perotis californicus western mastiff bat	-- / -- SSC G5T4 / S3S4	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting.	Low (foraging)	No CNDDB records within 5 miles. Roosting habitat not present. Marginally suitable foraging habitat on site.
Lasionycteris noctivagans silver-haired bat	--/-- SA G5/S3S4	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas; roosts in hollow trees beneath exfoliating bark, abandoned woodpecker holes and rarely under tocks. Needs drinking water.	Low (foraging)	No CNDDB records within 5 miles. Suitable roosting habitat not present on site. May forage on-site.
Lasiurus blossevillii western red bat	-- / -- SSC G5 / S3	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests; prefers habitat edges and mosaics with trees that are protected from	Low (foraging)	No CNDDB records within 5 miles. Suitable roosting and not present on site. May forage on-site.

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
		above and open below with open areas for foraging.		
Lasiurus cinereus hoary bat	--/-- SA G5/S3	The most widespread North American bat. Prefers open habitats or habitat mosaics with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Low (foraging)	No CNDDB records within 5 miles. Suitable roosting habitat not present on-site, may forage on-site.
Lepus californicus bennettii San Diego black-tailed jackrabbit	-- / -- SSC G5T3T4 / S3	Inhabits desert scrub, coastal scrub and early stages of forest and chaparral habitats	None	Commonly occurred in grassland and disturbed habitat along runways within the Goleta Slough Ecosystem, but not present in the Ecosystem since late 1980s.
Myotis yumanensis Yuma myotis	-- / -- -- G5 / S4	Widespread in California, except the Mojave and Colorado Desert regions. Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution closely tied to bodies of water. Maternity roosts typically occur in caves and buildings.	Low (foraging)	No CNDDB records within 5 miles. Suitable roosting and open water foraging habitat not present on site.
Neotoma bryanti (*N. lepida intermedia*) Bryant's [San Diego desert] woodrat	-- / -- SSC G5T3T4 / S3S4	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred, xeric sties. They are particularly abundant in rock outcrops and rocky cliffs and slopes.	None	No CNDDB records within 5 miles. Not observed during surveys. Project site lacks suitable habitat such as rock outcrops preferred by this species for nest structures, and medium to dense foliage in the xeric grassland/scrub areas. Prefers xeric sites, not likely present in the adjacent Los Carneros Creek or Wetland.
Taxidea taxus American badger	--/-- SSC G5/S3	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low (foraging)	No CNDDB records within 5 miles. Recorded in the Goleta Slough as late as 1986. Not detected during wildlife camera studies. This species could potentially reach the site from undeveloped areas to the north byway of Los Carneros

Table 2. Special Status Animal Species in the Project Vicinity

Scientific Name Common Name	Fed/State ESA CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence	Potential for Occurrence
				Creek, although given the fragmented and disturbed condition of the Project site and vicinity, as well as its small size, this is unlikely. Any occurrence would likely be transient.

Regional Vicinity refers to within a 5 mile radius of site.
FT = Federally Threatened
FC = Federal Candidate Species
FE = Federally Endangered
SE = State Endangered
ST = State Threatened
SR = State Rare
FS=Federally Sensitive SS=State Sensitive
G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3.
SC = CDFW Species of Special Concern
FP = Fully Protected

Appendix E: Wildlife Corridor Analysis for the Heritage Ridge Project

DUDEK

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Via mail and E-mail

Mr. Craig Minus
The Towbes Group
21 East Victoria Street, Suite 200
Santa Barbara, California 93101

Subject: Wildlife Corridor Analysis for the Heritage Ridge Project

Dear Mr. Minus:

This wildlife corridor analysis examines the possible movement of mammal species onto and through the Heritage Ridge Project (Project) site between the Santa Ynez Mountain foothills and the Goleta Slough. The focused analysis was designed to collect information relating to a proposed alternative wildlife corridor to a segment of Los Carneros Creek identified by the City in the *Draft Willow Springs II Environmental Impact Report* (DEIR; City 2011). The Project site is located east of Los Carneros Road, south of U.S. Highway 101 (U.S. 101), and immediately north of the existing Willow Springs I and II residential communities in the City of Goleta (City), California (*Figure 1*). The biological study area encompasses the Project site, the Los Carneros Creek and Wetland, and additional open space between Willow Springs I and II, and U.S. 101.

BACKGROUND

Recent Environmental Impact Reports (EIRs) analyzed potential impacts to wildlife corridors for proposed residential projects adjacent to Los Carneros Road and south of U.S. 101: Willow Springs II, to the east of Los Carneros Road (City 2011), and the Village at Los Carneros (City 2014a), to the west of Los Carneros Road. Tecolotito Creek is recognized as an Environmentally Sensitive Habitat Area (ESHA) under the City's Coastal Land Use Plan (Coastal LUP) and considered a wildlife corridor for mammal species that travel between the Santa Ynez Mountain foothills and the Santa Barbara Airport and greater Goleta Slough (Hoagland 2011). The City (2011) considered the Willow Springs II Project site a potential alternative wildlife corridor to Los Carneros Creek for wildlife movement.

A wildlife movement corridor was defined by the City (2011) as,

> "*…physical connections that allow wildlife to move between patches of suitable habitat in both disturbed and undisturbed landscapes, as well as environments fragmented by urban development. Large areas of suitable habitat and corridors between these areas are necessary to maintain healthy ecological and evolutionary processes. For example, wildlife movement corridors are necessary for dispersal and migration, to ensure the mixing of genes between populations, and so wildlife can respond and adapt to environmental stress.*"

In the DEIR (2011), Envicom identified two biologically significant ecological habitat "patches" in the area, the Santa Ynez Mountains and the Goleta Slough. The latter, the Goleta Slough, has become isolated from the "core habitats" of the Santa Ynez Mountains due to urban expansion in the City. Several creeks connect these two ecological areas, including Tecolotito (Glen Annie), Los Carneros, San Pedro, Las Vegas, San Jose, and Marie Ignacio. Although the City's consultant, Envicom Corporation (Envicom), was not able to investigate each creek or route for the possibility of successful wildlife movement as part of EIR preparation, they nonetheless were able to draw conclusions based on field visits in the area and available materials. Generally, they found that, due to the City's urban environment south of U.S. 101, the creeks offered the best potential wildlife corridors between the foothills of the Santa Ynez Mountains and Goleta Slough, although the quality of these corridors varied.

Specific to Los Carneros Creek and the Project site, the City continues:

> *"Los Carneros Creek flows beneath the 101 Freeway in a culvert large enough to support the movement of large mammals. After passing beneath the 101 Freeway, realigned Los Carneros Creek turns and flows east just north of the Union Pacific Railroad tracks before turning and flowing to the south for approximately 0.40 miles to Hollister Avenue in an exposed concrete-lined channel through the industrial area to the east of the project site. Los Carneros Creek then passes under Hollister Avenue in a culvert also capable of supporting the movement of large mammals, including deer, bear, and mountain lion, to the open space of the Goleta Slough Ecosystem. North of the 101 Freeway, Los Carneros Creek passes from the foothills of the Santa Ynez Mountains through naturally vegetated, agricultural or undeveloped lands. Based on land uses surrounding the creeks and associated riparian areas, it appears that Los Carneros Creek, as well as Glen Annie (Tecolotito) Creek, offer better opportunities for movement compared to other creeks draining to the Slough, since each passes through relatively little urban development."*

> *"The project site and the Willow Springs North property represent an alternative to movement along the approximately 0.40-mile exposed concrete-lined reach of Los Carneros*

> *Creek to the east of the site. Wildlife utilizing the Willow Springs North property could pass from the Los Carneros Creek culvert beneath the 101 Freeway to the Goleta Slough, via disturbed undeveloped habitats and the Los Carneros Wetland.…This option is not without impediments, as portions of the area are graded or contain sparse vegetative cover, and wildlife must cross Camino Vista, a two-lane residential road. However, these are not substantial barriers for some species. Furthermore, the culvert beneath Hollister Avenue between the Los Carneros Wetland and the Goleta Slough is too small to allow passage of large and perhaps some medium-sized mammals. It would be necessary for larger species to cross Hollister Avenue. Nevertheless, this corridor is the more suitable option for smaller species, as compared to the exposed concrete-lined reach of Los Carneros Creek to the east. The concrete-lined reach lacks any cover or foraging habitat for a long distance, leaving many animals vulnerable to predation by raptors, owls, or coyotes, for example. Many animals would not pass through this area due to these habitat conditions."*

Of wildlife corridors in general, the DEIR states that, "*where movement has been substantially restrained by encroaching development, it is necessary to maintain corridors, despite existing impediments within them, in order to preserve what remains as opportunities for movement.*" The DEIR nonetheless concluded that impacts from the proposed Willow Springs II development would have a *less than significant* affects to the potential alternative corridor (City 2011). Alternatively, the City arrived at the *potentially significant without mitigation* conclusion in their DEIR for the Village at Los Carneros (City 2014a), which contains a primary wildlife corridor along and including Tecolotito Creek, an Environmentally Significant Habitat Area (ESHA) with a City Streamside Protection Area (SPA) designation. The City allowed for a reduction in ESHA buffer from 100-feet to 35 to 40 feet ESHA/SPA from Tecolotito Creek ESHA and, as mentioned, a primary wildlife corridor in their EIR; however, the final conditions of approval for the Village at Los Carneros project required that "*the applicant must submit plans demonstrating a minimum 100-foot setback buffer between the project development and the top of the Tecolotito Creek bank*" (City 2014b). No ESHA, SPA, or riparian or creek habitats occur on the Heritage Ridge Project site.

For this study, Dudek further defines wildlife movement between core areas and/or habitat patches as wildlife corridors and linkage. Please note that the City's definition of "wildlife corridor" is used when describing or paraphrasing EIR statements.

Habitat Linkage: *An area which possess sufficient cover, food, water and/or other essential elements to serve as a movement pathway or between two or more large areas of habitat. An example of a linkage would be a belt of coastal sage scrub traversing a development, and connecting suitable habitat areas on either side of the developed area.*

Wildlife Corridor: *Areas of open space of sufficient width to permit larger, more mobile species to pass between larger areas of open space (core habitats), or to disperse from one major core habitat to another. Such areas can be several hundred feet wide, unobstructed, and usually possess cover, food and water.*

METHODOLOGY

Dudek investigated wildlife movement within the biological study area in 2013 and 2014. A pilot study was conducted in 2013 between January 3 and February 4, 2013 (32 days). In 2014, Dudek increased the number of camera stations and duration of the focused study, which lasted from January 18 to June 3, 2014 (160 days). The methodology of the two studies, which comprises our wildlife corridor analysis (i.e., analysis), is described in detail below.

During the 2013 pilot study, under the direction of senior ecologist John Davis IV, wildlife biologists Traci Caddy and Dave Compton conducted an initial daytime field survey on January 3, 2013, to confirm existing biological conditions; search for wildlife species, sign and tracks, and travel routes; and select appropriate camera station locations to record animal movements through the Project site and vicinity. Based on this survey, Dudek strategically placed four cameras to capture wildlife species movement through selected locations in the biological study area (*Table 1, Figure 2*). In addition, Dudek biologists Traci Caddy and Dave Compton conducted one additional daytime tracking survey on January 9, 2013, and two nocturnal spotlighting surveys on January 3, 2013, and January, 9, 2013, to survey for nocturnal wildlife activity. An additional daytime visit to review collected data, camera station, and site conditions as they related to wildlife movement was conducted by Dave Compton and senior ecologist John Davis IV on February 4, 2013.

In 2014, Dudek expanded the biological survey area, increased the number of camera stations, and lengthened the survey duration. In addition to camera locations used in 2013, five cameras were placed in strategic locations to provide more coverage of the potential routes of travel. Dudek strategically placed a total of nine cameras to capture species movement through these selected areas of the Project site and to assess entrance and/or exit points to the Project site. In addition, Dudek biologists conducted three daytime tracking surveys, on February 4, April 3, and May 2014. Detailed methods for camera stations and daytime surveys are discussed below.

Camera Stations

Nine motion-triggered camera stations (un-baited and unscented) were set up using Cuddeback Capture® digital cameras with a 50-foot flash range and seven Bushnell HD® Trophy Cams with an 80-foot flash range. The cameras were placed throughout the Project site, and each

operated to a maximum period of 160 days (*Table 1*). Camera direction and location were selected according to the most likely route of wildlife travel through the potential wildlife corridor and at access points to the potential corridor, including the culverts on the north and south ends of the study area (*Figure 2*).

Four camera stations were redeployed in the same locations as in the Dudek 2013 study. For the purpose of this study, Camera Station 1 is in the same location as in the 2013 study at the Hollister Avenue culvert. Camera Station 2 is in the same location as in the 2013 study and now has two cameras (2a and 2b) to ensure coverage that is more complete over possible routes of travel through the Los Carneros Wetland. Camera Station 3 has been re-named Camera station 11 and has been moved slightly south of the original 2013 location due to added fencing and gates. Camera Station 4 is in the same location as in 2013, at the Los Carneros Creek site at the Highway 101 culvert. Five additional cameras have been added to this 2014 study to more thoroughly cover all of the possible routes of travel or entry points into the corridor. These are at the locations described in *Table 1* and displayed on *Figure 1*.

The camera stations were visited on January 22, February 4, February 13, March 3, March 13, April 15, May 15, and June 11, 2014 to download photographs, adjust the position of the camera, and replace batteries (as needed). In 2013, the camera stations were visited on January 9, 13, 15, and 31.

Tracking Surveys

Dudek biologists Traci Caddy and Dave Compton surveyed the study area for tracks and signs during daytime hours on January 3, 2013, and January 9, 2013 (*Table 2*). The entire Project site and access areas to the suggested wildlife movement corridor were surveyed on foot, and all mammal tracks and sign were inventoried. Surveys focused on potential accessed points to the site and areas where mammal tracks could easily be observed, including roads and muddy/wet areas. During the February 4, 2013, site visit, senior ecologist John Davis IV revisited many of the tracks to further verify identification and search for additional tracks. In 2014, Mr. Davis IV, Mr. Compton, and Ms. Caddy conducted four additional tracking surveys.

Spotlighting Surveys

Dudek biologists Traci Caddy and Dave Compton conducted nocturnal spotlighting surveys in the study area for mammal species on January 3, 2013, and January 15, 2013 (*Table 2*). Each survey lasted approximately two hours. The biologists walked the Project site and other open space between Willow Springs I and U.S. 101, watching for wildlife and occasionally stopping to shine flashlights over open areas where wildlife might be passing. On the latter date, the

biologists also walked the perimeter of the Los Carneros Wetland, occasionally shining lights over the wetland to scan for wildlife.

Table 1
Camera Station Locations and Dates of Operations

Camera Station	Location and Orientation	Coordinates	Start Date(s)	End Date(s)
1	North end of culvert beneath Hollister Avenue	34° 25' 52.38" N 119° 51' 02.74" W	January 7, 2014	June 11, 2014
2(a)	Los Carneros Wetland; Camera faces east	34° 35' 55.22" N 119° 51' 07.96" W	January 16, 2014	June 11, 2014
2(b)	Los Carneros Wetland; same location as Camera 2 facing south	34° 35' 10.47" N 119° 51' 07.74" W	March 3,2014	June 11, 2014
3[1]	Middle of potential wildlife corridor on fence at west edge of project site	34° 26' 55.22" N 119° 51' 07.96" W	January 9, 2013	January 31, 2013
4	South end of culvert beneath U.S. 101	34° 26' 14.67" N 119° 51' 00.52" W	January 7, 2014	June 11, 2014
5	South end of culvert beneath U.S. 101; east of camera 4 and just north of camera 6	34° 26' 15.42" N 119° 50' 53.13" W	January 16, 2014	June 11, 2014
6	Concrete channel north end	34° 26' 13.51" N 119° 50' 52" W	January 16, 2014	June 11, 2014
7	Concrete channel south end	34° 25' 53.94" N 119° 50' 51.30" W	January 7, 2014	June 11, 2014
8	Corner of Los Carneros Way	34° 26' 01.79" N 119° 51' 09.98" W	January 22, 2014	June 11, 2014
9	Middle of corridor and behind construction trailer	34° 26' 06.61" N 119° 51' 06.31" W	January 22, 2014	June 11, 2014
10[2]	North-central portion of project site along coyote brush scrub.	34° 26' 11.44" N 119° 51' 05.46" W	Not applicable[2]	Not applicable2
11	Middle of project site through chain-link fence	34° 26' 10.44" N 119° 51' 08.06" W	January 16, 2014	June 11, 2014

[1]Installed, but not operating on January 11-14, 2013.

[2]Location of camera station selected, however, camera was not installed. Instead selected stations 3 (2013) and 11 (2014)

Table 2
Tracking and Spotlighting Survey Dates, Times, and Conditions

Survey Date/ Times	Conditions	Surveyors	Type of Survey
January 3, 2013 2:21pm-4:30pm	Clear with light winds (0-2 mph). Temperatures ranged from 63°F to 64°F.	Dave Compton, Traci Caddy	Daytime tracking survey
January 3, 2013 6:43pm-8:30pm	Clear with light winds (0-2 mph). Temperatures ranged from 43°F to 51°F.	Dave Compton, Traci Caddy	Nighttime spotlighting survey
January 9,2013 6:50am- 8:45am	Clear with light winds (0-2 mph). Temperatures ranged from 42°F to 50°F.	Dave Compton, Traci Caddy	Daytime tracking survey
January 15, 2013 6:50pm-8:20pm	Clear with light winds (0-2 mph). Temperatures ranged from 41°F 42°F.	Dave Compton, Traci Caddy	Nighttime spotlighting survey
February 4, 2013 11:00am – 12:30pm	Clear with light winds (0-2 mph). Temperatures ranged from 70°F 72°F.	John Davis IV Dave Compton	Daytime site review
February 4, 2014 8:11am- 10:34am	25% Cloud Cover with light winds (0-1 mph). Temperatures ranged from 49°F to 52°F.	Traci Caddy, Dave Compton	Daytime tracking survey
March 3, 2014 8:11am – 9:35	25%CC with light winds (0-1mph). Temperatures ranged from 52°F-57°F.	Traci Caddy, Dave Compton	Daytime tracking survey
April 8, 2014 3:30 – 5:00 pm	50%CC with light winds (0-5.5mph). Temperatures ranged from 75°F-84°F.	John Davis IV	Daytime tracking survey
April 15, 2014 11:00 – 12:35 pm	Clear with light winds (0-1mph). Temperatures ranged from 73°F-78°F.	John Davis IV	Daytime tracking survey

LIMITATIONS

The 2013 survey was conducted during winter, when most mammals occurring in the area would be expected to be active in this season. Conditions were suitable for detection of active wildlife species and any recent sign of their presence in the Project area during the surveys (*Table 2*). However, the short duration of the wildlife movement assessment during mid-winter limited the amount and intensity of wildlife movement we could reasonably document. Further, the winter season is not ideal to capture wildlife dispersing from "core habitats" such as the Santa Ynez Mountains foothill to "patches" like the Goleta Slough. Instead, wildlife movement captured by the cameras and evidenced by sign was likely a function of daily activities in search of prey items and shelter. Wildlife activities, especially of mammals, increase in spring and summer;

therefore, there is chance that wildlife species that may occur at other times of year were not captured as a result. Additionally, some of the fences that were present during the study were likely installed since field surveys were performed by Envicom (July 16, 2010) and/or the FEIR (City 2011) was prepared (2010/2011). Some fencing in the direct pathway of the potential wildlife corridor may have obstructed wildlife movement during the study.

The 2014 study was conducted concurrently with the construction of the Willow Springs II development. The combination of on-going construction, traffic, fencing, material storage, etc. likely affected wildlife travel routes, however, these limitations were recognized and discussed early in the study (before camera's were positioned). In fact, The Towbes Group understood the limitations and worked proactively with Dudek to make adjustments to reduce the limitations and strengthen the study. The major changes were to fencing. The Towbes Group – Construction Division cut several openings in the chain link fencing in areas where Dudek observed or determined that wildlife traveled or could through the site on the way to and back from the Los Carneros Wetlands.

Also during the study, a second construction project started to the west of the Project site, reinforcement of the Los Carneros Road overpass, a Caltrans project. The steep slope of the south overpass abutment was highly disturbed throughout much of the study and access to the lower portions of the abutment occurred in the northern portion of the biological study area. It is unlikely that the daytime construction directly affected wildlife movement to the Los Carneros Wetlands or west to Tecolotito Creek (no nighttime work was conducted); however, Dudek was unable to safely place camera stations in the area to capture wildlife movement to the west of the Project site. The construction activities also affected prime wildlife tracking conditions following rain events as ideal tracking areas were quickly driven over by construction equipment and vehicles quickly eliminating any new tracks.

RESULTS

Camera Stations

Coyote

The coyote (*Canis latrans*) is a medium-size mammal (8 to 20 kg / 1300 to 1700 mm total length) that can move over a large area and between habitats in search of prey. During this study, coyotes were detected by an independent camera station observation (observation) at Camera Station 2b, Camera Station 4, Camera Station 5, Camera Station 6, and Camera Station 9 (*Table 3* and *Camera Data*). Camera Station 4 (at the culvert at U.S 101 just north of the Project site) had the greatest number of observations of coyote (total number (n) equals 17). There were only

two on-site observations of coyote recorded at Camera Station 9 (*Table 3*) and a total of 29 coyote observations for all camera stations.

Bobcat

The bobcat (*Lynx rufus*) is a medium-size mammal (7 to 13 kg / 635 to 1400 mm total length) that can move over a large area (territory size ranges from 5 to 30 square miles) and their habitat includes forests, deserts, urban edges, and scrub. Bobcats were detected at Camera Station 2a, Camera Station 4, Camera Station 5, Camera Station 8, Camera Station 9, and Camera Station 11. Camera Station 5 (at the culvert at U.S 101 northeast of the Project site) had the greatest number of observations of bobcat, with 146 moving in either direction along the Los Carneros Creek culvert. There were several observations (n=27) of bobcat recorded on all three of the cameras located on the Project site. There were also several observations of bobcat at the entrance/exit points to the Project site including Camera Stations 4 and 2a (17 observations) (*Table 3*). There were a total of 190 observations of bobcat.

Raccoon

The raccoon (*Procyon lotor*) is a medium-size mammal (4 to 8 kg / 780 to 930 mm total length that persists near creeks in the urban landscape and also natural forest woodlands and wetlands habitats. While this species covers relatively long distances for a mammal of its size, its home range is much smaller than that of the coyote and larger mammals (Zeiner et al. 1990). Raccoons were detected at Camera Station 2a, Camera Station 4, Camera Station 5, Camera Station 6, Camera Station 8, and Camera Station 9 (*Table 3*). The culverts north of the Project site at Camera Station 4, Camera Station 5, and Camera Station 6 at the north end of the concrete channel had the highest number of raccoon observations, with 48-61 per location. There were several observations (n=30) of raccoon at two of the cameras (Camera Station 8 and Camera Station 9) on the Project site. There were a total of 204 observations of raccoon.

Other mammal species recorded at camera stations were smaller mammals that do not range over large areas and, therefore, are not indicator species for wildlife corridors. They included striped skunk (*Mephitis mephitis*) and opossum (*Didelphis virginiana*). Neither rabbit nor rodent (i.e., small mammal) species were included in the analysis.

Table 3
Camera Station Results

Camera Station No.	Season Year	Mammal Species Observed	Number of Independent Observation	Notes
1	Winter 2013	Coyote (*Canis latrans)*	2	Heading in west direction in both photographs.
1	Winter 2013	Raccoon (*Procyon lotor)*	3	Crossing through stream and heading south in all photographs.
2a	Winter 2013	Coyote (*Canis latrans)*	5	The same individual identified in three of the photographs based on distinct tail markings
2a	Winter 2014	Bobcat (*Lynx rufus)*	9	Observed equally going in both directions
2a	Winter 2014	Raccoon (*Procyon lotor)*	4	
2a	Winter 2014	Opossum (*Didelphis virginiana)*	1	
2b	Spring 2014 Summer 2014	Coyote(*Canis latrans)*	4	Heading west in all occasions
4	Winter 2014 Spring 2014 Summer 2014	Coyote(*Canis latrans)*	17	Most occurrences are heading in south direction
4	Winter 2014 Spring 2014 Summer 2014	Bobcat (*Lynx rufus)*	8	Occurrences are going in both directions along creek.
4	Winter 2014 Spring 2014 Summer 2014	Raccoon (*Procyon lotor)*	48	
4	Winter 2014 Spring 2014 Summer 2014	Striped Skunk (*Mephitis mephitis)*	26	
4	Spring 2014	Opossum (*Didelphis virginiana)*	13	
5	Winter 2014 Spring 2014	Coyote(*Canis latrans)*	5	All occurrences were heading in north direction
5	Winter 2014 Spring 2014	Bobcat (*Lynx rufus)*	146	Occurrences are going in both directions.
5	Winter 2014 Spring 2014	Raccoon (*Procyon lotor)*	51	Many of the occurrences have multiple individuals.
5	Winter 2014 Spring 2014	Striped Skunk (*Mephitis mephitis)*	15	Most occurrences are heading in north direction.
5	Winter 2014 Spring 2014	Opossum (*Didelphis virginiana)*	146	
6	Winter 2014	Coyote(*Canis latrans)*	1	
6	Winter 2014 Spring 2014	Raccoon (*Procyon lotor)*	61	Occurrences heading in both directions
6	Spring 2014	Striped Skunk (*Mephitis*	14	

Table 3
Camera Station Results

Camera Station No.	Season Year	Mammal Species Observed	Number of Independent Observation	Notes
	Summer 2014	*mephitis)*		
8	Winter 2014 Spring 2014 Summer 2014	Bobcat (*Lynx rufus)*	14	Occurrences heading in both directions
8	Winter 2014 Spring 2014 Summer 2014	Raccoon (*Procyon lotor)*	26	Many of the occurrences have multiple individuals.
8	Winter 2014 Spring 2014 Summer 2014	Striped Skunk (*Mephitis mephitis)*	19	
8	Winter 2014 Spring 2014 Summer 2014	Opossum (*Didelphis virginiana)*	20	
9	Spring 2014 Summer 2014	Coyote(*Canis latrans)*	2	Both occurrences heading in southern direction
9	Spring 2014 Summer 2014	Bobcat (*Lynx rufus)*	11	Most occurrences heading in north direction.
9	Winter 2014 Spring 2014	Raccoon (*Procyon lotor)*	4	
9	Winter 2014 Spring 2014	Striped Skunk (*Mephitis mephitis)*	11	Most occurrences are heading in north direction
9	Winter 2014 Spring 2014	Opossum (*Didelphis virginiana)*	24	
11	Spring 2014	Bobcat (*Lynx rufus)*	2	Both occurrences heading in northern direction
11	Winter 2013	Raccoon (*Procyon lotor)*	1	Two individuals in photograph
11	Winter 2013 Winter 2014 Spring 2014	Striped Skunk (*Mephitis mephitis)*	12	Most occurrences heading in north direction
11	Spring 2014 Summer 2014	Opossum (*Didelphis virginiana)*	14	All occurrences are heading in north direction

Tracking Surveys

In 2013, most tracks were recorded around the middle of the Project site near Camera Station 3 (*Figure 3*). This area included a graded, temporary road and large unvegetated areas, including muddy ground and standing water. In this area, raccoon, coyote, striped skunk, bobcat, and opossum (*Didelphis virginiana*) tracks were observed. Additionally, raccoon tracks were observed near Camera Station 4. Much of the remainder of the Project site consisted of vegetated

areas where tracks could not easily be discerned. *Figure 3* displays the location and year of the tracks and sign observed.

In 2014, tracks were primarily recorded around the northern end of the Project site, just north of Camera Station 11 near the railroad tracks (*Figure 3*). This area had unvegetated areas along the railroad tracks and along the construction road areas and includes muddy ground and standing water. In this area, raccoon, coyote, and bobcat tracks or scat were observed. Additionally, coyote scat was observed near Camera Station 11. Much of the remainder of the Project site consisted of vegetated areas and/or substrate where tracks could not easily be discerned, and as discussed, construction activities on-site and near the Los Carneros Road Bridge reduced the area and timing for track identification.

Spotlighting Surveys

In 2013, no mammal species were detected during walking nocturnal spotlighting surveys, however, several owls were observed. Spotlighting was not performed in 2014.

SUMMARY

During the study, three target medium-sized mammal species (coyote, bobcat, and raccoon) and two non-target mammal species (striped skunk and opossum) moved between the north and western portions of the Heritage Ridge Project site and south to the Los Carneros Wetlands. No observations of deer, bear, or mountain lion were within the biological study area during the study. The most interesting data is that of the bobcat. The study's highly documented the bobcat, a typically timid species, within the biological study area demonstrating that the habitat at the U.S. 101 culverts outlets provided enough plant coverage and shelter to allow safe movement south of the highway for this elusive cat. Bobcats are primarily nocturnal animals, especially near urban areas where they try to avoid human encounters. In fact, bobcats that live in areas highly fragmented by urbanization are even more nocturnal than bobcats that live in remote areas (Urban Carnivores 2014). Nearly all bobcat observations were at night.

Bobcats moved through Project site to reach the Los Carneros Wetlands and are also thought to travel west or east of the site. The data suggest that the latter is preferred, but without camera stations positioned at the Los Carneros Road overpass due to on-going construction activities during the study, no direct evidence is available for the west travel route (alternative wildlife linkage); however, the west route connects with Tecolotito Creek, a documented primary wildlife corridor to the Goleta Slough (City 2014a, Hoagland 2011), approximately 0.44 to 0.50 mile to the south and west. To the east of the Project site and south of U.S. 101, the urban environment is dense and expansive, with the exception of Twin Lakes Golf Course and Las Vegas Creek (on

the golf course) approximately 0.64 mile east of Camera Station 5. Las Vegas Creek extends south across Hollister Avenue and along the eastern boundary of the Santa Barbara Airport with access to highly fragmented habitat patches, including the Goleta Slough another 0.75 mile south of the golf course. Of the 190 bobcat camera station observation only 25 (7.6 percent) were from on-site camera stations (8 and 11) and the Los Carneros Wetlands (camera station 2A). Los Carneros Creek represented the eastern boundary of the biological survey area (Camera Station 5, 6, and 7). Bobcats were most often observed at Camera Station 5, but not in Los Carneros Creek at station 6 or 7 as the creek becomes a concrete stormwater culvert south of the Union Pacific railroad track easement. This indicates that bobcats were also using, perhaps preferring, other routes of travel. Data for the coyote and raccoon supported the use of all potential wildlife movement routes (i.e., linkages). Both species are more tolerant of the urban environment and were found throughout the biological study area with the exception of the south end of the stormwater culvert (Camera Station 7), and, therefore, bobcats remain the focus of analysis especially as it relates to Project Design (below).

DISCUSSION

The hypothesis of an alternative wildlife movement route (wildlife linkage) south through the Project site to the Los Carneros Wetlands and onto the Santa Barbara Airport and greater Goleta Slough was analyzed in this study. As alluded to by the City (2011) and consultant (Envicom), it is unlikely due to physical barriers and impediments that wildlife movement would occur in the concrete portion of Los Carneros Creek south of Union Pacific railroad tracks. Instead, it was proposed that the Project site and Tecolotito Creek would provide a more ideal wildlife corridor to the slough.

"*…it appears that Los Carneros Creek, as well as Glen Annie (Tecolotito) Creek, offer better opportunities for movement compared to other creeks draining to the Slough, since each passes through relatively little urban development"* (City 2011).

It is agreed that the segment of Los Carneros Creek that connects areas north of U.S. 101 to the Goleta Slough is a poor wildlife linkage providing no wildlife habitat. The "stormwater culvert" consists of an approximately 2,000 foot concrete-lined flood control channel with steep walls and 6-foot high chain-link fences at the top-of-slope (west and east) bordering the channel. Dudek's data suggests that wildlife species were generally absent from the channel, especially the southern end near Hollister Road, where the camera captured regular human foot traffic but no wildlife activity. Striped skunk and opossum were, however, infrequently captured by the wildlife cameras on the north end. Based on the camera data, Los Carneros Creek/Channel does not provide a wildlife linkage between the Santa Ynez Mountains and the Goleta Slough on airport property.

Additionally, the City (2011) stated:

"Wildlife utilizing the Willow Springs North property could pass from the Los Carneros Creek culvert beneath the 101 Freeway to the Goleta Slough, via disturbed undeveloped habitats and the Los Carneros Wetland…"

"It would be necessary for larger species to cross Hollister Avenue. Nevertheless, this corridor is the more suitable option for smaller species, as compared to the exposed concrete-lined reach of Los Carneros Creek to the east."

Light traffic on Hollister Avenue is expected late in the evening, which theoretically, would allow nocturnally active wildlife species to transverse the asphalt to the airport and slough from the Los Carneros Wetlands. However, most mammal species will then find limited habitat, coverage, and an 8-foot tall, well-maintained chain-link security fence approximately 300 feet south of the road, forming a physical barrier to the slough. The area north of the slough and south of Hollister Avenue is considered a "habitat patch" considering the surrounding urban environment, although the quality is questionable due to the existing hazards, frequent maintenance, and limited coverage. Predatory interactions and road causalities may result from these forays for the species of interest. One raccoon was observed dead on Hollister Avenue during the study. If wildlife species were able to access the airport property, just south of Los Carneros Creek is the airport runway and a very well maintain safety area providing no coverage and limited hunting or foraging opportunities. Habitat conditions improve further west and south near the confluence of Los Carneros and Tecolotito Creek and south along and adjacent to Tecolotito Creek deeper into the slough.

As indicated, the Hollister Avenue culvert at Tecolotito Creek offers the most ideal wildlife access point to the Goleta Slough on Santa Barbara Airport property (*Figure 4*). In fact, Hoagland et. al. (2011) determined Tecolotito Creek to be one of four primary corridors in the Goleta Valley with sufficient culvert sizes to allow for movement of larger mammals (i.e., deer and black bears) (Hoagland 2011, City 2012); however, in the Village of Los Carneros Draft EIR, the City (2014a) noted that the largest species to move through the Tecolotito Creek and culverts is foxes (*Vulpes* spp.) and the American badger (*Taxidea taxus*) and found the 110 foot total minimum width (60 foot for the Tecolotito Creek ESHA and 50 feet for adjacent upland habitat) proposed for the Village project was sufficient for wildlife species utilizing corridor, which was later expanded to 100 feet from the creek bank per the final conditions of approval for the project (City 2014b). Based on literature, existing data, and personal observations, Tecolotito Creek and its culverts provide the best option for wildlife movement between the Santa Ynez Mountain foothills and the Goleta Slough on Santa Barbara Airport property.

In conclusion, the study found evidence of a wildlife linkage between the Santa Ynez Mountain foothills and the Los Carneros Wetlands through the Heritage Ridge Project site and no linkage between the Los Carneros Creek or Wetlands and the greater Goleta Slough on the Santa Barbara Airport. The alternative wildlife corridor proposed by the City (2011) linking the foothills (and Project site) to the slough was, therefore, not substantiated. Instead, the data suggest that an alternative wildlife linkage occurs to the west connecting to Tecolotito Creek, a primary wildlife corridor to the Goleta Slough (*Figure 4*). Another possible wildlife linkage exists to the east connecting to Las Vegas Creek at the Twin Creeks Golf Course, which also connects to the Goleta Slough, although with impediments. The expected end point of the linkage for most wildlife species traveling to the east may just be the golf course for hunting opportunities.

PROJECT DESIGN

Heritage Ridge has allotted for a wildlife linkage along the north and west perimeter of the Project site to allow for movement of mammals and other wildlife species between the Santa Ynez Mountain foothills and Los Carneros wetlands to the south of the site. True Nature Landscape Architecture, working with Dudek, has included in a wildlife trail in their preliminary landscape plan (*see attached C-1, C-2, and C-3*) along a 6 to 8-foot sound wall that will separate parking lots (north and west side of project) and condominiums (south side of Project) from the designated wildlife linkage. To ensure conditions along the linkage will continue its purpose of wildlife movement, the plant palette is low maintenance in design. Even so, the corridor will be regularly maintained. The wildlife linkage will also be in compliance with City of Goleta Fire Department Codes and resistant to vagrant establishments. The Towbes Group is in the process of finalizing the project design; therefore, recommendations are presented below to reduce indirect effects to the wildlife corridor that could inhibit movement and/or full use of the trail to the Los Carneros Wetlands.

RECOMMENDATIONS

The Heritage Ridge Project will affect the width and topography of the wildlife linkage that extends between the Santa Ynez Mountain foothills and the Los Carneros Wetlands. To successfully allow for development of the Project while providing a functional wildlife linkage between the foothill and wetlands, the following recommendations are requested of the Project:

- Direct all neighborhood night lighting downward and away from the wildlife linkage
- No artificial lighting should be placed on the noise barrier or in the wildlife linkage
- Restrict the use of pesticides, insecticides, and rodenticides, and educate the future homeowners about the effects to mammals and other wildlife species

- Bobcats are susceptible to the same diseases as domestic cats, and disease can be transmitted between domestic cats and bobcats (or vice versa). Educating future house owners and the public about feline diseases and promoting indoor cats will protect bobcat use of the corridor and throughout the coastal zone and foothills
- Educate future homeowners and the public about the importance of the wildlife linkage

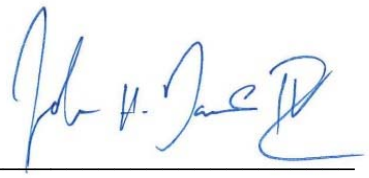
Implementation of the above recommendations will reduce potential indirect affects to wildlife utilizing the linkage, especially at night, when most mammals were observed moving through the area.

CONCLUSION

The Heritage Ridge Project will expand the boundaries of the existing Willow Springs residential neighborhoods to the west near Los Carneros Road. Two narrow urban wildlife corridors/linkages are situated near the Project site; one potentially links with Tecolotito Creek further west of the site and Los Carneros Road, while the second extends along the northern and western portions of the Project site to the east and along Los Carneros Road and eventually south (off-site) to the Los Carneros Wetlands. Maintaining this wildlife linkage is important for many small- (raccoon, stripped skunk, etc.) and medium- (coyote and bobcat) sized mammal species that use these areas (wetlands and foothills) to hunt, seek shelter, breed, and conduct other normal behaviors important for their survival, especially within the wildness-urban interface. If the recommendations presented are implemented and successfully maintained, I expect that wildlife travel will persist along the perimeter of the Project site connecting the San Ynez Mountain foothills and the Los Carneros Wetlands.

If you have any questions regarding the contents of this letter report, please do not hesitate to contact me at (805) 308-8524 office or (805) 252-7996 cell or by email at jdavis@dudek.com.

Sincerely,



John H. Davis IV
Project Manager / Senior Ecologist

Att.: *References*
Camera Data
Figure 1: Project Site Location
Figure 2: Camera Stations
Figure 3: Camera Station and Tracking Results

Att. (continued):

Figure 4: Wildlife Corridors
Photo Documentation'
Landscape Plans (C-1, C-2, and C-3)

cc: Linda Blackbern, The Towbes Group, via email

REFERENCES

City of Goleta. 2014a. Village at Los Carneros Final Environmental Impact Report (June 2, 2014).

City of Goleta. 2014b. Village at Los Carneros Final Conditions of Approval.

City of Goleta. 2011. Willow Springs II Draft Environmental Impact Report. City of Goleta. October 2011.

Elbroch, M., M. Kresky, and J. Evans. 2012. Field Guide to Animal Tracks and Scat of California. California Natural History Guide Series.

Elbroch, M. 2003 Mammal Tracks and Sign: a guide to North American Species

Elbroch, M. 2006. Animal Skulls: a guide to North American Species

Hoagland, S. 2011. Habitat Linkage Project.

Jameson, E.W. and H. J. Peeters. 2004. California Mammals. University of California Press. Berkeley, California.

Reid, F.A. 2006. A field guide to mammals of North America, 4th Edition. The Peterson field guide series.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. California's Wildlife. Volume III: Mammals. California Statewide Habitat Relationship System. Sacramento, Calif.: California Department of Fish and Game.

CAMERA STATION DATA

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
2a	January 18, 2014/6:41am January 24, 2014/4:48am January 25, 2014/6:08 am January 30, 2014/6:03am February 1, 2014/7:13am February 5, 2014/8:26pm February 12, 2014/10:17pm February 18, 2014/12:13am February 21, 2014/10:15pm	Bobcat	Going in both directions Heading southeast Heading northwest
2a	January 25, 2014/3:31am	Opossum	
2a	January 18, 2014/5:41am February 18, 2014/5:20am February 28, 2014/4:54am March 3, 2014/3:41am	Raccoon	
2b	April 23, 2014/2:48am May 18, 2014/4:15am May 23, 2014/12:20am June 8, 2014/11:38pm	Coyote	Heading west Heading west Heading west Heading west
4	March 26, 2014/10:48pm March 29, 2014/8:11pm April 4, 2014/8:39pm April 8, 2014/10:02pm April 10, 2014/2:29am April 28, 2014/12:53am May 4, 2014/4:42am May 8, 2014/2:02am May 9, 2014/5:09am May 22, 2014/3:09am May 24, 2014/11:36pm May 25, 2014/10:17pm May 31, 2014/10:32pm	Opossum	
4	February 15, 2014/5:09am February 18, 2014/1:20am February 24, 2014/5:55am March 4, 2014/3:21am March 7, 2014/10:08pm March 9, 2014/11:45pm March 11, 2014/2:49am March 13, 2014/3:34am March 15, 2014/10:54pm March 17, 2014/9:31pm March 24, 2014/7:27pm March 25, 2014/7:36pm	Raccoon	

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	March 26, 2014/5:44am April 2, 2014/6:15am April 2, 2014/8:18pm April 5, 2014/8:20pm April 7, 2014/6:23am April 7, 2014/10:27pm April 7, 2014/10:53pm April 9, 2014/10:29pm April 12, 2014/11:12pm April 16, 2014/11:47pm April 17, 2014/4:38am April 19, 2014/8:13pm April 24, 2014/10:29pm April 26, 2014/9:01pm April 29, 2014/8:56pm May 1, 2014/6:22am May 3, 2014/1:13am May 3, 2014/1:14am May 3, 2014/1:26am May 3, 2014/4:52am May 4, 2014/9:28pm May 8, 2014/12:19am May 8, 2014/4:04am May 8, 2014/5:10am May 9, 2014/11:11pm May 13, 2014/4:36am May 13, 2014/11:10pm May 13, 2014/11:24pm May 18, 2014/1:27am May 25, 2014/11:07pm May 27, 2014/3:10am May 29, 2014/4:35am May 31, 2014/1:08am June 2, 2014/5:20am June 3, 2014/4:47am June 3, 2014/11:41pm		2 Raccoons
Camera Station 4	February 14, 2014/1:05am February 14, 2014/3:33am February 16,2014/2:08am February 16,2014/10:29pm February 23, 2014/1:57am February 23, 2014/6:50pm March 12, 2014/12:34pm March 16, 2014/4:06am March 19, 2014/2:57am	Striped Skunk	

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	March 28, 2014/12:09am March 28, 2014/3:24am April 3, 2014/9:40pm April 10, 2014/5:12am April 13, 2014/3:42am April 17, 2014/1:43am April 24, 2014/1:05am April 24, 2014/9:04pm April 29, 2014/4:51pm April 30, 2014/11:49pm May 6, 2014/2:28am May 12, 2014/9:43pm May 14, 2014/3:26am May 15, 2014/1:52am May 15, 2014/11:34pm May 17, 2014/3:57am June 6, 2014/3:41am		
Camera Station 4	January 8, 2014/9:58pm January 13, 2014/4:55pm February 8 , 2014/1:18am April 12, 2014/4:06am May 8, 2014/4:33am May 17, 2014/11:07pm June 4, 2014/3:14am June 6, 2014/9:28pm	Bobcat	Heading south Heading north Heading north Heading north Heading south Heading north Heading south
Camera Station 4	January 17, 2014/10:52am January 20, 2014/11:05pm January 21, 2014/12:00am April 2, 2014/5:29pm April 25, 2014/6:08pm May 7, 2014/7:51pm May 9, 2014/5:16am May 11, 2014/4:36am May 18, 2014/4:00pm May 22, 2014/5:00am May 24, 2014/5:12am May 28, 2014/5:23pm May 31, 2014/4:30pm May 31, 2014/4:36pm June 4, 2014/2:03am June 8, 2014/6:57am June 9, 2014/5:23pm	Coyote	All heading south Heading north Heading south Heading south Heading south Heading south Heading south Heading south Heading south Heading south Heading north Heading south Heading south
Camera Station 5	January 20, 2014/3:38am January 22, 2014/4:57am January 23, 2014/12:15am January 24, 2014/3:54am	Opossum	

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	January 25, 2014/1:20am January 25, 2014/1:52am January 26, 2014/6:57pm January 27, 2014/7:39pm January 28, 2014/10:12pm February 1, 2014/9:23pm February 5, 2014/12:25am February 5, 2014/8:55pm February 8, 2014/1:36am February 8, 2014/1:51am February 8, 2014/6:35pm February 9, 2014/6:24pm February 10, 2014/6:12pm February 11, 2014/12:08am February 14, 2014/8:26pm February 17, 2014/7:31pm February 20, 2014/1:01am February 20, 2014/11:28pm February 27, 2014/7:37pm March 6, 2014/8:14pm March 7, 2014/8:38pm March 8, 2014/8:11pm March 9, 2014/1:53am March 9, 2014/8:54pm March 10, 2014/7:32pm March 10, 2014/8:03pm March 11, 2014/3:02am March 11, 2014/3:16am March 12, 2014/4:09am March 12, 2014/8:12pm March 14, 2014/9:03pm March 16, 2014/9:09pm March 16, 2014/10:47pm March 17, 2014/8:28pm March 18, 2014/4:03am March 18, 2014/6:08am March 18, 2014/8:56pm March 18, 2014/11:01pm March 19, 2014/11:43pm March 20, 2014/4:35am March 20, 2014/9:53pm March 20, 2014/11:07pm March 21, 2014/10:16pm March 23, 2014/2:06am March 23, 2014/11:09am March 25, 2014/5:13am		

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	March 25, 2014/8:46pm		
	March 25, 2014/9:18pm		
	March 27, 2014/2:13am		
	March 27, 2014/2:45am		
	March 27, 2014/8:28pm		
	March 28, 2014/1:39am		
	March 28, 2014/4:11am		
	March 28, 2014/8:36pm		
	April 2, 2014/11:24pm		
	April 3, 2014/3:38am		
	April 4, 2014/12:13am		
	April 4, 2014/3:21am		
	April 4, 2014/4:27am		
	April 4, 2014/9:28pm		
	April 4, 2014/10:25pm		
	April 5, 2014/12:02am		
	April 5, 2014/1:52am		
	April 5, 2014/2:15am		
	April 6, 2014/9:44pm		
	April 7, 2014/10:35pm		
	April 8, 2014/1:00am		
	April 9, 2014/5:29am		
	April 9, 2014/5:59am		
	April 10, 2014/4:43am		
	April 10, 2014/6:22am		
	April 10, 2014/9:04pm		
	April 11, 2014/5:31am		
	April 11, 2014/6:09am		
	April 11, 2014/6:54am		
	April 12, 2014/5:34am		
	April 12, 2014/10:06pm		
	April 12, 2014/11:11pm		
	April 12, 2014/11:54pm		
	April 13, 2014/2:11am		
	April 13, 2014/2:50am		
	April 13, 2014/5:21am		
	April 14, 2014/12:11am		
	April 14, 2014/3:47am		
	April 14, 2014/4:21am		
	April 14, 2014/9:23pm		
	April 15, 2014/12:22am		
	April 15, 2014/4:09am		
	April 16, 2014/2:39am		
	April 16, 2014/2:51am		
	April 16, 2014/3:40am		
	April 17, 2014/5:29am		

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	April 18, 2014/1:13am		
	April 22, 2014/8:36pm		
	April 23, 2014/9:29pm		
	April 24, 2014/2:18am		
	April 24, 2014/4:57am		
	April 25, 2014/2:06am		
	April 25, 2014/11:40pm		
	April 26, 2014/12:39am		
	April 26, 2014/3:15am		
	April 26, 2014/10:50pm		
	April 27, 2014/1:55am		
	April 29, 2014/2:54am		
	April 30, 2014/4:52am		
	April 30, 2014/9:26pm		
	April 30, 2014/9:42		
	May 2, 2014/2:23am		
	May 3, 2014/1:31am		
	May 3, 2014/10:21pm		
	May 4, 2014/10:53pm		
	May 5, 2014/2:43am		
	May 6, 2014/1:03am		
	May 6, 2014/1:39am		
	May 6, 2014/10:22pm		
	May 7, 2014/12:14am		
	May 7, 2014/12:40am		
	May 7, 2014/1:32am		
	May 7, 2014/1:34am		
	May 7, 2014/4:21am		
	May 7, 2014/8:47pm		
	May 8, 2014/12:47am		
	May 8, 2014/2:30am		
	May 8, 2014/3:03am		
	May 8, 2014/3:04am		
	May 8, 2014/3:31am		
	May 8, 2014/3:40am		
	May 8, 2014/5:12am		
	May 8, 2014/9:07pm		
	May 9, 2014/12:04am		
	May 9, 2014/3:58am		
	May 12, 2014/10:15pm		
	May 15, 2014/12:41am		
	May 16, 2014/9:33pm		
	May 18, 2014/3:07am		
	May 18, 2014/9:42pm		
	May 20, 2014/3:37am		
	May 20, 2014/3:43am		

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	May 20, 2014/3:59am		
	May 20, 2014/4:05am		
	May 20, 2014/4:28am		
	May 20, 2014/9:06pm		
Camera Station 5	January 25, 2014/4:14am	Raccoon	
	January 26, 2014/2:26am		
	January 26, 2014/6:22am		Two raccoons heading north
	January 27, 2014/5:09am		
	January 27, 2014/6:17am		
	January 27, 2014/10:59pm		
	January 28, 2014/3:29am		
	February 2, 2014/5:28am		
	February 2, 2014/11:28pm		
	February 3, 2014/1:35am		
	February 3, 2014/5:17am		
	February 3, 2014/8:28pm		
	February 4, 2014/4:53am		Two raccoons heading north
	February 4, 2014/6:59pm		
	February 8, 2014/4:00am		Two raccoons heading south
	February 13, 2014/2:11am		
	February 18, 2014/2:11am		
	February 19, 2014/9:39pm		
	February 20, 2014/7:26pm		
	February 23, 2014/9:27pm		
	March 5, 2014/7:35pm		
	March 5, 2014/10:34pm		
	March 8, 2014/7:52pm		
	March 9, 2014/3:15am		
	March 11, 2014/3:02am		
	March 11, 2014/8:40pm		
	March 13, 2014/1:42am		
	March 15, 2014/11:34pm		
	March 16, 2014/6:18am		
	March 17, 2014/10:17pm		
	March 17, 2014/10:56pm		
	March 23, 2014/1:07am		
	March 24, 2014/12:50am		
	March 28, 2014/2:23am		
	March 29, 2014/3:49am		Two raccoons
	March 29, 2014/4:47am		Two raccoons
	April 1, 2014/2:34am		
	April 2, 2014/6:00am		
	April 2, 2014/6:21am		
	April 6, 2014/9:16pm		
	April 7, 2014/9:07pm		
	April 9, 2014/10:39pm		

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	April 14, 2014/1:51am		
	April 14, 2014/2:32am		
	April 18, 2014/4:16am		
	April 19, 2014/8:26pm		
	April 23, 2014/5:02am		Two raccoons
	April 23, 2014/5:03		Two raccoons
	April 23, 2014/8:40pm		
	April 25, 2014/5:46am		Two raccoons
	April 26, 2014/10:35pm		
	April 27, 2014/5:15am		Two raccoons
	May 4, 2014/4:02am		
	May 4, 2014/10:59pm		
	May 5, 2014/5:17am		
	May 7, 2014/5:18am		
	May 9, 2014/3:05am		
	May 9, 2014/9:26pm		
	May 9, 2014/11:53pm		
	May 15, 2014/12:53am		
	May 18, 2014/2:31am		
Camera Station 5	January 18, 2014/3:25am	Striped skunk	Heading north
	January 20, 2014/12:14pm		Heading south
	January 21, 2014/5:33am		Heading north
	January 22, 2014/3:41am		
	January 25, 2014/4:27am		Heading north
	January 27, 2014/1:42am		Heading north
	January 28, 2014/3:29am		Heading north
	February 6, 2014/1:11am		Heading south
	February 6, 2014/4:20am		Heading north
	February 23, 2014/8:50pm		Heading north
	March 5, 2014/8:24pm		Heading west
	March 11, 2014/5:33am		Heading south
	March 21, 2014/12:00am		
	April 3, 2014/10:04pm		Heading north
	April 7, 2014/11:09pm		Heading north
Camera Station 5	January 18, 2014/1:00am	Coyote	Heading north
	January 27, 2014/2:25am		Heading north
	January 30, 2014/2:18am		Heading north
	February 1, 2014/1:31am		Heading north
	May 8, 2014/2:15am		Heading north
Camera Station 5	January 16, 2014/9:51pm	Bobcat	Heading south
	January 16. 2014/10:18pm		Heading north
	January 17, 2014/11:29pm		Heading south
	January 18, 2014/12:12am		Heading north
	January 18, 2014/4:10am		Heading north
	January 19, 2014/2:42am		Heading south
	January 19, 2014/2:49am		Heading south

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	January 19, 2014/8:57pm		Heading south
	January 19, 2014/10:26pm		Heading north
	January 20, 2014/5:43am		Heading south
	January 20, 2014/6:08am		Heading north
	January 24, 2014/12:14am		Heading south
	January 24, 2014/12:46am		Heading north
	January 26, 2014/1:24am		Heading south
	January 26, 2014/1:24am		Heading west
	January 26, 2014/4:10am		Heading north
	January 27, 2014/12:46pm		Heading south
	January 27, 2014/1:12am		Heading north
	January 29, 2014/1:54am		Heading south
	January 29, 2014/4:13am		Heading north
	January 30, 2014/2:17am		Heading south
	January 30, 2014/3:59am		Heading north
	January 31, 2014/11:45am		Heading south
	February 1, 2014/3:01am		Heading north
	February 2, 2014/7:44pm		Heading south
	February 2, 2014/8:52pm		Heading north
	February 4, 2014/12:12am		Heading south
	February 4, 2014/2:24am		Heading south
	February 4, 2014/2:27am		Heading north
	February 4, 2014/2:57am		Heading north
	February 5, 2014/2:41am		Heading south
	February 5, 2014/3:44am		Heading north holding kill
	February 6, 2014/2:14am		Heading south
	February 8, 2014/3:34am		Heading south
	February 8, 2014/5:06am		Heading north
	February 10, 2014/2:33am		Heading north
	February 10, 2014/3:36am		Heading south
	February 10, 2014/4:15am		Heading north
	February 12, 2014/1:46am		Heading south
	February 12, 2014/3:43am		Heading north
	February 18, 2014/12:44am		Heading south
	February 18, 2014/2:00am		Heading north
	February 19, 2014/11:58pm		Heading south
	February 19, 2014/11:59pm		Heading north
	February 20, 2014/12:00am		Heading south
	February 20, 2014/2:07am		Heading north
	February 22, 2014/8:18pm		Heading south
	February 22, 2014/9:49pm		Heading north
	February 23, 2014/3:31am		Heading south
	February 23, 2014/5:07am		Heading north
	March 2, 2014/3:13am		Heading south
	March 3, 2014/4:48am		Heading north
	March 4, 2014/12:10am		Heading south

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	March 4, 2014/4:48am		Heading north
	March 6, 2014/9:02pm		Heading south
	March 6, 2014/9:46pm		Heading north
	March 7, 2014/11:38pm		Heading south
	March 8, 2014/4:31am		Heading north
	March 9, 2014/1:59am		Heading south
	March 9, 2014/3:51am		Heading north
	March 9, 2014/10:59pm		Heading south
	March 10, 2014/3:26am		Heading north
	March 11, 2014/11:51pm		Heading south
	March 12, 2014/2:16am		Heading north
	March 12, 2014/5:17am		Heading north
	March 12, 2014/10:52pm		Heading south
	March 13, 2014/2:41am		Heading north
	March 16, 2014/2:20am		Heading north
	March 17, 2014/1:04am		Heading south
	March 17, 2014/5:17am		Heading north
	March 17, 2014/9:33pm		Heading south
	March 17, 2014/11:02pm		Heading north
	March 19, 2014/11:51		Heading south
	March 19, 2014/2:29am		Heading north
	March 22, 2014/10:46pm		Heading south
	March 23, 2014/11:57pm		Heading north
	March 24, 2014/12:10am		Heading north
	March 27, 2014/8:34pm		Heading south
	March 27, 2014/10:32pm		Heading north
	March 28, 2014/11:34pm		Heading south
	March 29, 2014/12:19am		Heading south
	March 29, 2014/2:18am		Heading north
	March 29, 2014/4:27am		Heading north
	March 30, 2014/11:19pm		Heading south
	March 31, 2014/1:22am		Heading north
	April 2, 2014/10:53pm		Heading south
	April 2, 2014/11:07pm		Heading south
	April 3, 2014/12:29am		Heading north
	April 6, 2014/12:31am		Heading south
	April 6, 2014/12:46am		Heading north
	April 6, 2014/3:55am		Heading north
	April 7, 2014/1:51am		Heading south
	April 7, 2014/3:29am		Heading south
	April 7, 2014/5:54am		Heading north
	April 10, 2014/7:56pm		Heading south
	April 10, 2014/9:46pm		Heading south
	April 10, 2014/9:56pm		Heading north
	April 11, 2014/3:44am		Heading north
	April 12, 2014/1:11am		Heading south

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	April 12, 2014/3:22am		Heading north
	April 12, 2014/4:13am		Heading north
	April 14, 2014/9:05am		Heading south
	April 15, 2014/3:41am		Heading north
	April 16, 2014/1:35am		Heading south
	April 17, 2014/5:03am		Heading north
	April 18, 2014/11:52pm		Heading north
	April 19, 2014/3:23am		Heading south
	April 19, 2014/5:21am		Heading north
	April 20, 2014/8:57pm		Heading south
	April 21, 2014/4:12am		Heading north
	April 23, 2014/12:16am		Heading south
	April 23, 2014/3:03am		Heading north
	April 25, 2014/12:49am		Heading south
	April 25, 2014/12:51am		Heading north
	April 25, 2014/12:53am		Heading south
	April 25, 2014/5:03am		Heading north
	April 25, 2014/6:20am		Heading north
	April 25, 2014/11:02pm		Heading south
	April 26, 2014/1:25am		Heading north
	April 30, 2014/3:11am		Heading south
	April 30, 2014/4:51am		Heading north
	May 1, 2014/9:39pm		Heading north
	May 3, 2014/11:51pm		Heading south
	May 4, 2014/3:59am		Heading north
	May 7, 2014/2:53am		Heading south
	May 7, 2014/4:31am		Heading north
	May 7, 2014/9:48pm		Heading south
	May 8, 2014/1:44am		Heading south
	May 8, 2014/4:13am		Heading north
	May 11, 2014/12:20am		Heading north
	May 11, 2014/1:06am		Heading south
	May 11, 2014/2:37am		Heading north
	May 12, 2014/4:16am		Heading south
	May 15, 2014/3:32am		Heading north
	May 18, 2014/5:45am		Heading north
	May 18, 2014/11:43pm		Heading south
Camera Station 6	January 20, 2014/4:39am	Coyote	
Camera Station 6	February 17, 2014/ 2:00am	Raccoon	Heading south
	February 18, 2014/2:00am		Two individuals going south
	February 20, 2014/1:06am		Heading north
	February 20, 2014/1:09am		Heading south
	February 20, 2014/1:10am		Heading north
	February 23, 2014/4:59am		Heading south
	February 27, 2014/7:22am		Heading south
	February 27, 2014/9:15pm		Heading south

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	March 4, 2014/4:09am		Heading south
	March 5, 2014/4:18am		Heading north
	March 7, 2014/7:26pm		Two individuals going south
	March 7, 2014/9:05pm		Heading south
	March 8, 2014/12:43pm		Heading north
	March 8, 2014/3:43am		Heading west
	March 8, 2014/7:13pm		Heading south
	March 11, 2014/8:40pm		Heading north
	March 11, 2014/11:25pm		Heading south
	March 12, 2014/1:42am		Heading north
	March 12, 2014/6:33pm		Heading south
	March 12, 2014/7:32pm		Two individuals going south
	March 12, 2014/7:56pm		Heading north
	March 13, 2014/1:49am		Heading south
	March 13, 2014/8:35pm		Heading south
	March 21, 2014/8:52pm		Heading north
	March 21, 2014/9:14pm		Heading south
	March 21, 2014/12:52am		Heading south
	March 21, 2014/3:43am		Heading south
	March 22, 2014/3:45am		Heading north
	March 23, 2014/4:48am		Heading north
	March 24, 2014/3:50am		Heading north
	March 24, 2014/11:39pm		Heading south
	March 25, 2014/8:01pm		Heading south
	March 25, 2014/11:32pm		Heading south
	March 26, 2014/4:54am		Heading south
	March 26, 2014/5:28am		Heading north
	March 27, 2014/4:38am		Heading south
	March 27, 2014/6:09am		Two individuals going south
	March 28, 2014/2:19am		Heading north
	March 28, 2014/8:38pm		Heading south
	March 28, 2014/9:03pm		Heading north
	March 29, 2014/4:58am		Heading south
	March 29, 2014/8:48pm		Two individuals going south
	April 1, 2014/2:33am		Heading north
	March 2, 2014/8:03pm		Heading south
	March 2, 2014/8:47pm		Heading south
	March 3, 2014/3:48am		Heading north
	March 4, 2014/12:42am		Heading north
	March 4, 2014/1:00am		Heading north
	March 4, 2014/4:43am		Heading south
	March 6, 2014/3:04am		Heading south
	March 11, 2014/2:07am		Heading south
	March 12, 2014/1:25am		Heading north
	March 13, 2014/12:02am		Heading south
	March 17, 2014/12:33am		Heading south

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	March 18, 2014/9:24pm May 1, 2014/9:32pm May 6, 2014/3:01am May 8, 2014/12:25am May 13, 2014/4:21am May 22, 2014/3:58am May 30, 2014/2:53am		Heading south Heading south Heading south Heading south Heading north Heading south Heading north
Camera Station 6	March 21, 2014/11:45pm April 2, 2014/1:10am April 18, 2014/2:49am April 22, 2014/2:30am April 27, 2014/5:20am April 27, 2014/11:49pm April 30, 2014/11:21pm May 4, 2014/11:51pm May 7, 2014/9:23pm May 23, 2014/10:53pm May 23, 2014/11:45pm May 30, 2014/1:07am May 31, 2014/11:19pm June 6, 2014/11:38pm	Striped skunk	 2individuals heading south three individuals
Camera Station 8	January 24, 2014/5:36am January 28, 2014/10:56pm January 29, 2014/3:54am January 29, 2014/10:31pm January 31, 2014/2:14am February 2, 2014/12:15am February 3, 2014/4:27am February 6, 2014/9:55pm February 6, 2014/10:42pm February 8, 2014/6:28am February 10, 2014/4:00am February 12, 2014/1:11am March 9, 2014/12:40am March 17, 2014/10:11pm April 4, 2014/4:33am April 7, 2014/12:37am May 4, 2014/9:36pm May 13, 2014/9:11pm June 6, 2014/1:26am	Striped skunk	
Camera Station 8	January 28, 2014/11:29pm January 28, 2014/12:18am January 31, 2014/9:12pm February 3, 2014/1:31am February 6, 2014/2:39am	Opossum	

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	February 10, 2014/1:43am February 10, 2014/10:10pm February 27, 2014/10:18pm March 13, 2014/3:13pm April 14, 2014/1:25am April 18, 2014/2:23am April 20, 2014/4:34am April 21, 2014/4:57am April 28, 2014/8:51pm April 30, 2014/2:02am May 2, 2014/10:58pm May 3, 2014/9:16pm June 3, 2014/10:35pm June 3, 2014/10:42pm June 10, 2014/1:40am		
Camera Station 8	January 22, 2014/8:18pm January 23, 2014/4:50am January 23, 2014/8:26am January 24, 2014/3:24am January 25, 2014/1:40am January 25, 2014/7:03pm January 27, 2014/5:07am January 28, 2014/7:50pm January 30, 2014/4:07am February 3, 2014/2:58am February 12, 2014/5:00am February 17, 2014/10:33pm February 19, 2014/10:05pm February 24, 2014/3:11am February 24, 2014/3:40am March 3, 2014/12:53am March 8, 2014/12:09am March 11, 2014/10:10pm April 7, 2014/4:42am April 7, 2014/6:16am April 25, 2014/4:39am May 7, 2014/8:34pm May 19, 2014/8:43pm May 29, 2014/12:38am May 29, 2014/1:35am June 2, 2014/8:26pm	Raccoon	2 Raccoons 2 Raccoons
Camera Station 8	January 25, 2014/1:23am January 25, 2014/4:42am January 28, 2014/4:44am February 6,2014/12:45am February 13, 2014/11:01pm	Bobcat	Heading north Heading south Heading south Heading north Heading north

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	February 14, 2014/1:39am		Heading south
	March 18, 2014/10:41pm		Heading south
	April 15, 2014/11:13pm		Heading south
	April 17, 2014/2:47am		Heading south
	April 17, 2014/2:50am		Heading north
	April 27, 2014/10:48pm		Heading south
	May 22, 2014/2:08am		Heading south
	June 2, 2014/12:23am		Heading north
	June 6, 2014/12:43am		Heading north
Camera Station 9	January 22, 2014/6:56pm	Opossum	
	January 22, 2014/9:39pm		
	January 22, 2014/9:50pm		
	January 22, 2014/9:59pm		
	January 24, 2014/1:45am		
	January 25, 2014/3:11am		
	January 25, 2014/7:41pm		
	February 4, 2014/10:27pm		
	February 5, 2014/7:16pm		
	February 6, 2014/2:29am		
	February 17, 2014/12:20am		2 opossums
	March 3, 2014/4:55am		
	March 4, 2014/1:19am		
	March 5, 2014/12:51am		
	March 6, 2014/4:45am		
	March 7, 2014/2:55am		
	March 8, 2014/2:49am		
	March 9, 2014/2:53am		
	March 10, 2014/5:42am		
	March 11, 2014/2:34am		
	March 12, 2014/7:59pm		
	April 24, 2014/1:34am		
	May 11, 2014/4:09am		
	May 20, 2014/2:16pm		
Camera Station 9	January 23, 2014/2:31am	Striped skunk	
	January 24, 2014/12:36am		
	January 24, 2014/7:17pm		
	January 24, 2014/9:47pm		
	January 24, 2014/9:51pm		
	January 25, 2014/3:52am		
	January 26, 2014/7:05pm		
	January 26, 2014/9:49pm		
	February 5, 2014/6:53pm		
	February 7, 2014/10:26pm		
	March 21, 2014/8:58pm		
Camera Station 9	January 25, 2014/3:06pm	Raccoon	Heading north
	March 7, 2014/6:38am		2 raccoons

Camera Station No.	Date / Time Stamp	Mammal Species Observed	Notes
	March 19, 2014/4:36am		
	March 19, 2014/4:48am		
Camera Station 9	March 11, 2014/10:25pm	Bobcat	Heading south
	March 23, 2014/12:19am		Heading south
	March 23, 2014/10:36pm		Heading south
	March 27, 2014/9:02pm		Heading south
	March 28, 2014/11:59pm		Heading south
	April 5, 2014/10:55pm		Heading south
	April 14, 2014/9:37pm		Heading south
	April 23, 2014/1:40am		Heading north
	May 11, 2014/1:59am		Heading north
	May 18, 2014/2:39am		Heading north
	June 1, 2014/10:22pm		Heading south
Camera Station 9	May 23, 2014/2:38am	Coyote	Heading south
	June 6, 2014/1:45am		Heading south
Camera Station 11	January 24, 2014/5:55pm	Striped skunk	Heading north
	March 18, 2014/11:05pm		Heading north
	March 21, 2014/8:23pm		Heading south
	March 27, 2014/9:10pm		Heading north
	April 3, 2014/8:19pm		Heading north
	April 3, 2014/8:48pm		Heading north
	May 3, 2014/3:33am		Heading north
	May 6, 2014/11:56pm		Heading north
	May 9, 2014/8:34pm		Heading north
	May 17, 2014/10:19pm		Heading north
	May 19, 2014/3:04am		Heading north
Camera Station 11	March 29, 2014/12:58am	Bobcat	Heading north
	March 21, 2014/12:27am		Heading north
Camera Station 11	April 23, 2014/9:02pm	Opossum	Heading north
	April 28, 2014/9:22pm		Heading north
	April 30, 2014/2:28am		Heading north
	March 19, 2014/11:36pm		Heading north
	March 20, 2014/8:12pm		Heading north
	April 23, 2014/9:02pm		Heading north
	April 28, 2014/9:22pm		Heading north
	May 2, 2014/11:54pm		Heading north
	May 2, 2014/11:54pm		Heading north
	May 5, 2014/11:54pm		Heading north
	May 6, 2014/8:40pm		Heading north
	May 26, 2014/2:45am		Heading north
	June 3, 2014/10:56pm		Heading north
	June 4, 2014/9:32pm		Heading north

SOURCE: USGS Topo 7.5 Minute Series - GOLETA Quadrangle
Township 4N / Range 28W / Sections 07, 18

FIGURE 1

Project Site Location

Wildlife Corridor Analysis for the Heritage Ridge Project

Project Site

Biological Study Area

Culvert

Camera Station (2014)

Camera Station (inactive)

Camera Station (2013-2014)

Camera Station (2013)

0 100 200 Feet

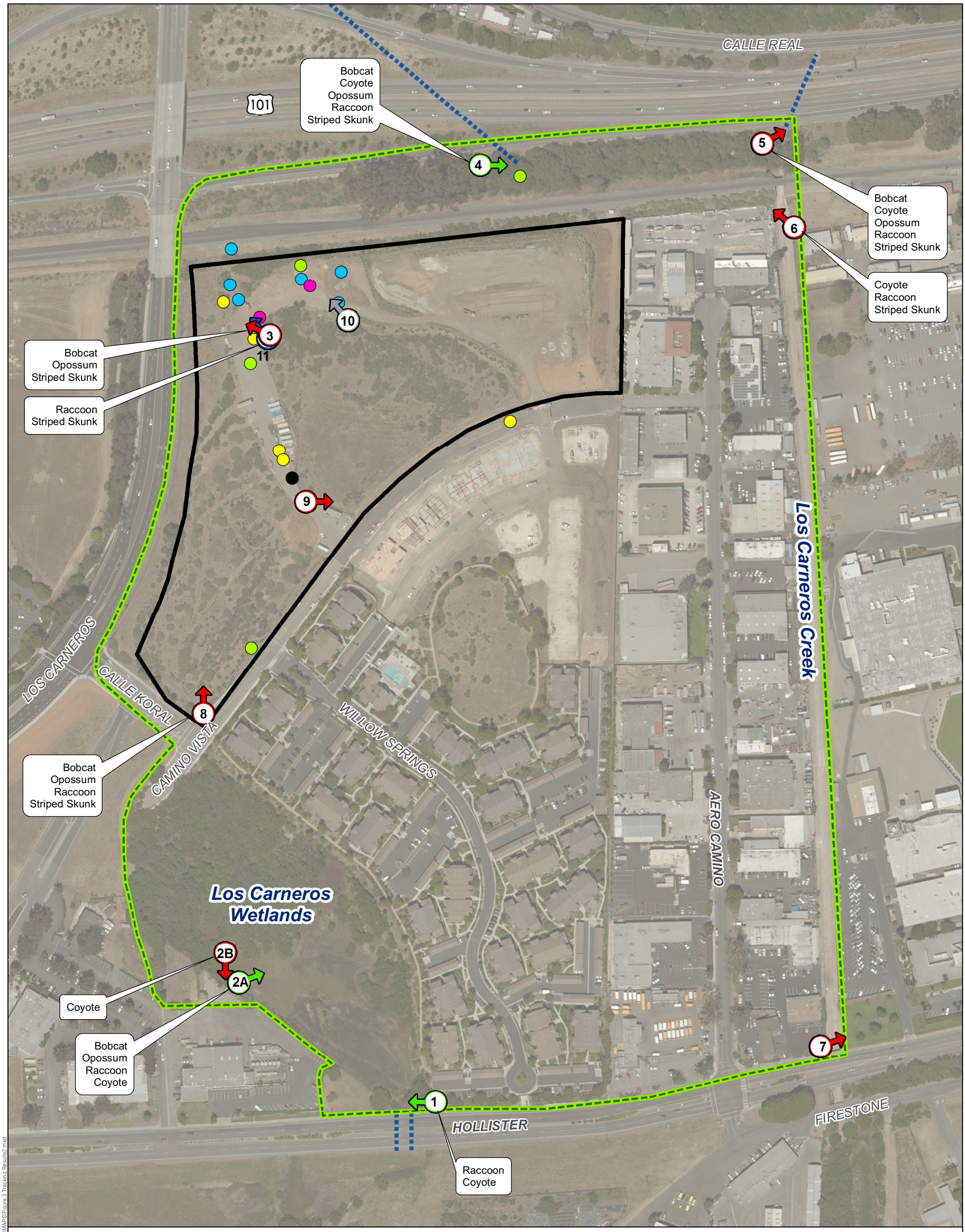
SOURCE: Bing Maps

DUDEK

FIGURE 2
Camera Stations

Wildlife Corridor Analysis for the Heritage Ridge Project

Date: 8/15/2014 - Created by: - Last saved by: kzecher - Path: \\Dudek-files\gis\data\Projects\IR17601\MAPDOC\MAPS\Figure 2 Camera stations.mxd



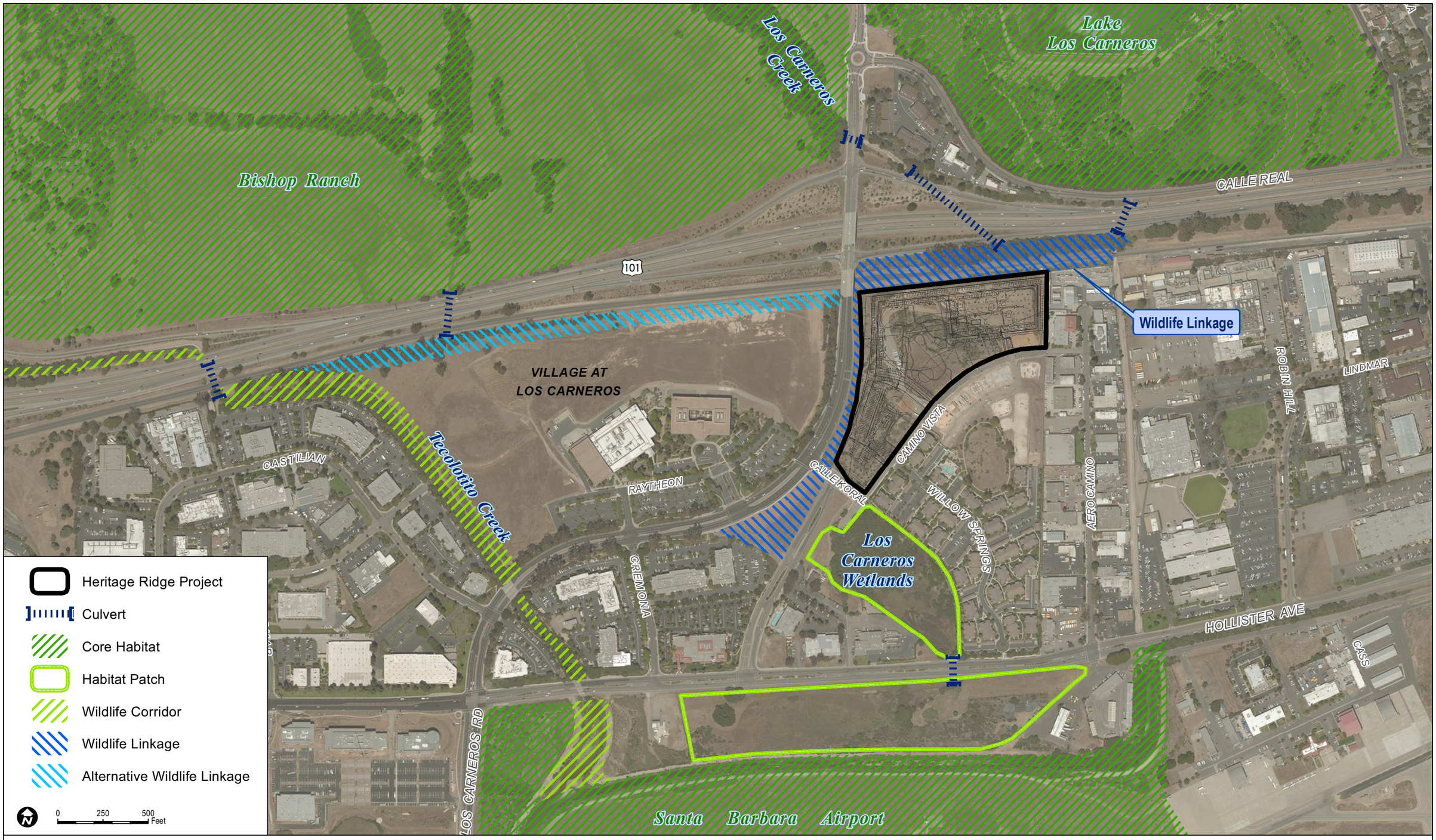
SOURCE: Bing Maps

DUDEK

FIGURE 3
Tracking Results

Wildlife Corridor Analysis for the Heritage Ridge Project

Date: 8/15/2014 - Created by: - Last saved by: kzecher - Path: \\Dudek-files\gis\data\Projects\8176\01\MAPDOC\MAPS\Figure 3 Tracking Results2.mxd



SOURCE: SOURCE: MAC Design Associates, Bing Maps

DUDEK

Figure 4
Wildlife Corridors

Wildlife Corridor Analysis for the Heritage Ridge Project

Date: 8/14/2014 - Created by: - Last saved by: kzecher - Path: \\Dudek-files\gis\data\Projects\j\81760 1\MAPDOC\MAPS\Figure 4 Wildlife Corridors.mxd

Appendix A: Photograph Documentation
Wildlife Corridor Analysis

Camera Station 1: Human traveling southeast to Hollister Avenue near culvert that extends under the street and enters onto Santa Babara Airport.

Camera Station 1: Another human traveling southeast to Hollister Avenue.

Camera Station 2a. Bobcat (*Lynx rufus*) in a grassy opening along the western portion of the Los Carnerous wetlands area. The houses in the background are along Willow Springs Lane.

Camera Station 2a. Racoon (*Procyon lotor*) along the fringe of the Los Carnerous wetlands just north of office buidlings situated along Hollister Avenue

Camera Station 2b. Coyote (*Canas latrans*) entering low willow lined channel, west Los Carnerous wetlands.

Traci, I would like another photo here from 2b

Camera Station 4. Coyote (*Canas latrans*) heading south from the western culvert. The culvert extends under SR-101 from near the Union Pacific Railroad tracks to open grassland areas to the north.

Camera Station 4. Bobcat (*Lynx rufus*) traveling north toward the culvert. Arroyo willows are located along the undefined channel. Eucalytpus trees are abundance between SR-101 and UPRR tracks.

Camera Station 4. Coyote (*Canis latrans*)

Camera Station 4. Raccoon (*Procyon lotor*).

Camera Station 5. Bobcat

Camera Station 5. Coyote (*Canis latrans*) traveling southwest from the eastern culvert that also extends north from near the Union Pacific Railroad tracks under SR-101 to open grasslands and Lake Carnerous to the north.

Camera Station 5. Raccoon (*Procyon lotor*)

Camera Station 5. Bobcat (*Lynx rufos*)

Camera Station 6. North American [Virginia] Opossum (*Didelphis virginiana*) walking south along the Los Carnerous culvert just south of UPRR tracts. The flood control structure is located in an industrial portion of Goleta.

Camera Station 6. Raccoon (*Procyon lotor*) in the culvert.

Camera Station 6. Raccoons (*Procyon lotor*).

Camera Station 6. Striped skunk (*Mephitis mephitis*).

Camera Station 7. Human walking north into the Los Carnerous culvert from Hollister Avenue.

Camera Station 7. Human walking south towards Hollister Avenue.

Camera Station 8. Bobcat (*Lynx rufus*) near the corner of Calle Koral and Camino Vista.

Camera Station 8. North American [Virginia] Opossum (*Didelphis virginiana*) walking southwest towards an opening in the chain-linked fencing that leads to the roads.

Camera Station 8. Striped skunk (*Mephitis mephitis*).

Camera Station 8. Raccoons (*Procyon lotor*).

Camera Station 11. Bobcat (*Lynx rufus*) at the opening in the fence line, northwest portion of the site near Los Carnerous Road.

Camera Station 11. North American [Virginia] Opossum (*Didelphis virginiana*).

Camera Station 11. Striped skunk (*Mephitis mephitis*).

Camera Station 11. Striped skunk (*Mephitis mephitis*).

PLANT PALETTE IMAGES

TREES

Shoestring Acacia

Peppermint Tree

Manna Arbutus

Lemon-Scented Gum

Australian Willow

Jacaranda

Brisbane Box

Willow Pittosporum

Corkscrew Willow

Forest Pansy Redbud

California Sycamore

Coast Live Oak

Swan Hill Fruitless Olive

Santa Cruz Island Ironwood

PARK

John Dourley Manzanita

Shoestring Acacia

Island Bush Poppy

Native Blue Rye

California Coffeeberry

Low-growing native hummingbird & butterfly plants

White Sage

Purple Sage

Deer Grass

Carmel Creeper

RESIDENTIAL SHRUBS, ACCENT PLANTS, & GROUNDCOVER

Dwarf Bottle Brush

Variegated Agave

Purple New Zealand Flax

New Zealand Flax

Giant Velvet Rose

Ground Morning Glory

Variegated Flax Lily

Rosemary

Blue Podocarpus

Variegated Pittosporum

Plum Delight Fringe-Flower

Dwarf Strawberry Tree

Bougainvillea

Starburst Yellow Daylily

Dark Blue Lily of the Nile

Putah Creek Myoporum

Toyon

Island Snapdragon

Evergreen Eulalia & Mendocino Rosso Grass

Cape Rush

Autumn Moor Grass

Blue Sedge

Slender Sedge

PLANT PALETTE
SENIOR HOUSING

Botanical	Common	Water Use*
TREES:		
Acacia stenophylla	Shoestring Acacia	Low
Agonis flexuosa	Peppermint Tree	Low
Arbutus x `Manna`	Manna Arbutus	Low
Cercis canadensis `Forest Pansy` TM	Forest Pansy Redbud	Moderate
Chionanthus retusus	Chinese Fringe Tree	Moderate
Corymbia (Eucalyptus) citriodora	Lemon-Scented Gum	Low
Geyera parviflora	Australian Willow	Low
Howea forsteriana	Kentia Palm	Moderate
Jacaranda mimosifolia	Jacaranda	Moderate
Juniperus scopulorum `Skyrocket`	Skyrocket Juniper	Moderate
Lophostemon confertus	Brisbane Box	Moderate
Olea europaea `Swan Hill` TM	Swan Hill Fruitless Olive	Low
Pittosporum phillyraeoides	Willow Pittosporum	Low
Platanus racemosa	California Sycamore	Moderate
Quercus suber	Cork Oak	Low
ACCENT PLANTS		
Agave attenuata `Variegata`	Variegated Agave	Low
Chondropetalum tectorum	Cape Rush	Low
Miscanthus transmorrisonensis	Evergreen Eulalia	Moderate
Phormium tenax `Dusky Chief`	Purple New Zealand Flax	Low
Phormium x `Duet`	New Zealand Flax	Low
VINES		
Bougainvillea x `San Diego Red`	Bougainvillea	Low
Ficus pumila minima	Creeping Fig	Moderate
Pandorea jasminoides	Bower Vine	Moderate
SHRUBS		
Arbutus unedo `Elfin King`	Dwarf Strawberry Tree	Low
Arctostaphylos x `John Dourley`	John Dourley Manzanita	Low
Arctostaphylos x `Sunset`	Sunset Manzanita	Low
Bougainvillea x `La Jolla`	Bougainvillea	Low
Callistemon citrinus `Little John`	Dwarf Bottle Brush	Low
Ceanothus x `Dark Star`	California Lilac	Low
Galvezia speciosa `Boca Rosa`	Island Snapdragon	Very Low
Heteromeles arbutifolia	Toyon	Very Low
Loropetalum chinense `Plum Delight`	Plum Delight Fringe-Flower	Moderate
Metrosideros collina `Springfire`	Leuhia	Moderate
Olea europaea `Little Ollie` TM	Little Ollie Olive	Low
Pittosporum tenuifolium `Margore Channon`	Variegated Tawhiwhi	Moderate
Pittosporum tobira `Variegata`	Variegated Mock Orange	Moderate
Pittosporum tobira `Wheelers Dwarf`	Wheeler`s Dwarf Mock Orange	Moderate
Podocarpus `Icee Blue`	Blue Podocarpus	Moderate
Prunus ilicifolia lyonii	Catalina Cherry	Low
Rhaphiolepis umbellata `Minor`	Yedda Hawthorn	Low
GROUNDCOVER		
Baccharis pilularis `Pigeon Point`	Dwarf Coyote Brush	Low
Carex glauca	Blue Sedge	Low
Carissa macrocarpa `Green Carpet`	Green Carpet Natal Plum	Low
Ceanothus gloriosus horizontalis	Carmel Creeper	Low
Convolvulus sabatius	Ground Morning Glory	Low
Cotoneaster dammeri `Lowfast`	Lowfast Bearberry Cotoneaster	Low
Fragaria chiloensis	Beach Strawberry	Moderate
Myoporum parvifolium `Putah Creek`	Putah Creek Myoporum	Low
Rosmarinus o. `Huntington Carpet`	Huntington Carpet Rosemary	Very Low
COLORFUL GROUNDCOVER		
Agapanthus x `Storm Cloud`	Dark Blue Lily of the Nile	Moderate
Dianella caerulea `Cassablue`	Cassablue Flax Lily	Moderate
Dianella tasmanica `Variegata`	Flax Lily	Moderate
Hemerocallis x `Starburst Yellow` TM	Starburst Yellow Daylily	Moderate

PLANT PALETTE
NEIGHBORHOOD PARK

Botanical	Common	Water Use*
TREES:		
Cercis occidentalis	Western Redbud	Moderate
Cupressus macrocarpa	Monterey Cypress	Low
Lyonothamnus floribundus asplenifolius	Santa Cruz Island Ironwood	Low
Platanus racemosa	California Sycamore	Moderate
Quercus agrifolia	Coast Live Oak	Very Low
Quercus tomentella	Island Live Oak	Low
PARK NATIVE SHRUBS		
Arctostaphylos densiflora `Howard McMinn`	Howard McMinn Manzanita	Low
Arctostaphylos x `John Dourley`	John Dourley Manzanita	Low
Artemisia californica	California Sagebrush	Low
Ceanothus x `Dark Star`	California Lilac	Low
Dendromecon harfordii	Island Bush Poppy	Low
Heteromeles arbutifolia	Toyon	Very Low
Leymus condensatus `Canyon Prince`	Native Blue Rye	Low
Rhamnus californica `Mound San Bruno`	California Coffeeberry	Low
Rhus integrifolia	Lemonade Berry	Low
Ribes viburnifolium	Catalina Perfume	Low
Salvia leucophylla	Purple Sage	Low
LOW GROWING NATIVE HUMMINGBIRD & BUTTERFLY PLANTS		
Baccharis pilularis `Pigeon Point`	Dwarf Coyote Brush	Low
Ceanothus gloriosus horizontalis	Carmel Creeper	Low
Encelia californica	California Encelia	Very Low
Epilobium canum	Hummingbird Trumpet	Very Low
Eriogonn glaucus `Wayne Roderick`	Seaside Daisy	Low
Eriogonum fasciculatum	Common Buckwheat	Very Low
Enophyllum confertiflorum	Golden Yarrow	Very Low
Eschscholzia californica	California Poppy	Very Low
Galvezia (Gambelia) speciosa `Boca Rosa`	Island Bush Snapdragon	Very Low
Isocoma menziesii decumbens	Decumbent Goldenbush	Very Low
Lessingia filaginifolia `Silver Carpet`	Branching Sea Aster	Low
Lupinus succulentus	Arroyo Lupine	Low
Mimulus aurantiacus	Sticky Monkey Flower	Very Low
Muhlenbergia rigens	Deer Grass	Low
Salvia apiana	White Sage	Very Low
Sisyrinchium bellum	Blue Eyed Grass	Low
Stipa pulchra	Purple Needle Grass	Very Low
MEADOW WITH NATIVE PLANTINGS		
Achillea millefolium	Common Yarrow	Low
Agrostis pallens	Thingrass	Low
Calamagrostis foliosa	Reed Grass	Moderate
Carex pansa	Sandsdune Sedge	Moderate
Carex praegracilis	Slender Sedge	Moderate
Carex tumulicola	Berkeley Sedge	Low
Deschampsia cespitosa	Tufted Hair Grass	Moderate
Eschscholzia californica	California Poppy	Very Low
Festuca rubra `Molate`	Molate Fescue	High
Layia platyglossa	Tidy Tips	Low
Lupinus succulentus	Arroyo Lupine	Low
Muhlenbergia capillans	Pink Muhly	Moderate
Muhlenbergia dubia	Pine Muhly	Low
Muhlenbergia lindheimeri	Lindheimer`s Muhly	Low
Muhlenbergia rigens	Deer Grass	Low
Sesleria autumnalis	Autumn Moor Grass	Moderate
Stipa pulchra	Purple Needle Grass	Very Low
LAWN		
Festuca arundinacea `Marathon II`	Marathon II Sod	High
Agrostis pallens	Thingrass sod or seed	Low

PLANT PALETTE
WORKFORCE HOUSING

Botanical	Common	Water Use*
TREES:		
Acacia stenophylla	Shoestring Acacia	Low
Agonis flexuosa	Peppermint Tree	Low
Arbutus x `Manna`	Manna Arbutus	Low
Corymbia (Eucalyptus) citriodora	Lemon-Scented Gum	Low
Geyera parviflora	Australian Willow	Low
Howea forsteriana	Kentia Palm	Moderate
Jacaranda mimosifolia	Jacaranda	Moderate
Juniperus scopulorum `Skyrocket`	Skyrocket Juniper	Moderate
Lophostemon confertus	Brisbane Box	Moderate
Phoenix roebelenii	Pygmy Date Palm	Moderate
Pittosporum angustifolium (phylliraeoides)	Willow Pittosporum	Low
Platanus racemosa	California Sycamore	Moderate
Quercus agrifolia	Coast Live Oak	Very Low
Salix matsudana `Tortuosa`	Corkscrew Willow	High
Syagrus romanzoffiana	Queen Palm	Moderate
ACCENT PLANTS		
Agave attenuata `Variegata`	Variegated Agave	Low
Chondropetalum tectorum	Cape Rush	Low
Miscanthus transmorrisonensis	Evergreen Eulalia	Moderate
Phormium tenax `Dark Delight`	Purple New Zealand Flax	Low
Phormium x `Duet`	New Zealand Flax	Low
VINES		
Bougainvillea x `San Diego Red`	Bougainvillea	Low
Distictis buccinatoria	Trumpet Vine	Moderate
Ficus pumila minima	Creeping Fig	Moderate
SHRUBS		
Arbutus unedo `Elfin King`	Dwarf Strawberry Tree	Low
Arctostaphylos x `John Dourley`	John Dourley Manzanita	Low
Arctostaphylos x `Sunset`	Sunset Manzanita	Low
Bougainvillea x `La Jolla`	Bougainvillea	Low
Callistemon citrinus `Little John`	Dwarf Bottle Brush	Low
Ceanothus x `Dark Star`	California Lilac	Low
Galvezia speciosa `Boca Rosa`	Island Snapdragon	Very Low
Heteromeles arbutifolia	Toyon	Very Low
Loropetalum chinense `Plum Delight`	Plum Delight Fringe-Flower	Moderate
Metrosideros collina `Springfire`	Leuhia	Moderate
Olea europaea `Little Ollie` TM	Little Ollie Olive	Low
Pittosporum tenuifolium `Margore Channon`	Variegated Tawhiwhi	Moderate
Pittosporum tobira `Variegata`	Variegated Mock Orange	Moderate
Pittosporum tobira `Wheelers Dwarf`	Wheeler`s Dwarf Mock Orange	Moderate
Podocarpus `Icee Blue`	Blue Podocarpus	Moderate
Prunus ilicifolia lyonii	Catalina Cherry	Low
Rhamnus californica `Mound San Bruno`	California Coffeeberry	Low
Rhaphiolepis umbellata `Minor`	Yedda Hawthorn	Low

Botanical	Common	Water Use*
GROUNDCOVER		
Aeonium canariense	Giant Velvet Rose	Low
Aeonium `Sunburst`	Sunburst Aeonium	Low
Agapanthus x `Storm Cloud`	Dark Blue Lily of the Nile	Moderate
Baccharis pilularis `Pigeon Point`	Dwarf Coyote Brush	Low
Carex glauca	Blue Sedge	Low
Carissa macrocarpa `Green Carpet`	Green Carpet Natal Plum	Low
Ceanothus gloriosus horizontalis	Carmel Creeper	Low
Convolvulus sabatius	Ground Morning Glory	Low
Cotoneaster dammeri `Lowfast`	Lowfast Bearberry Cotoneaster	Low
Dianella caerulea `Cassablue`	Cassablue Flax Lily	Moderate
Dianella tasmanica `Variegata`	Variegated Flax Lily	Moderate
Fragaria chiloensis	Beach Strawberry	Moderate
Hemerocallis x `August Orange`	Orange Daylily	Moderate
Hemerocallis x `Starburst Yellow` TM	Starburst Yellow Daylily	Moderate
Myoporum parvifolium `Putah Creek`	Putah Creek Myoporum	Low
Philodendron x `Xanadu`	Philodendron	Moderate
Rosmarinus officinalis `Huntington Carpet`	Huntington Carpet Rosemary	Very Low
Senecio mandraliscae	Blue Chalk Sticks	Low
SLOPE PLANTINGS		
Acacia redolens `Lowboy`	Prostrate Acacia	Low
Baccharis pilularis `Pigeon Point`	Coyote Brush	Low
Ceanothus gloriosus horizontalis	Carmel Creeper	Low
Myoporum parvifolium `Pink`	Pink Myoporum	Low
BIO-RETENTION BASIN / SWALE PLANTS		
Agrostis pallens	Thingrass	Low
Calamagrostis foliosa	Reed Grass	Low
Carex pansa	Sandsdune Sedge	Moderate
Carex praegracilis	Slender Sedge	Moderate
Carex tumulicola	Berkeley Sedge	Low
Chondropetalum tectorum	Cape Rush	Low
Deschampsia cespitosa	Tufted Hair Grass	Moderate
Festuca rubra `Molate`	Molate Fescue	High
Muhlenbergia capillans	Pink Muhly	Moderate
Muhlenbergia rigens	Deer Grass	Low
Sesleria autumnalis	Autumn Moor Grass	Moderate
Stipa pulchra	Purple Needle Grass	Very Low
LAWN		
Festuca arundinacea `Marathon II`	Marathon II Sod	High
Agrostis pallens	Thingrass sod or seed	Low

TRUE NATURE
LANDSCAPE ARCHITECTURE
Goleta, CA 93111
TrueNatureDesign.com
805-770-2100

HERITAGE RIDGE
Goleta, California
The Towbes Group, Inc

8/28/14
JOB NO. 1313

CL-2
PRELIMINARY PLANT PALETTE

PLANT PALETTE IMAGES

PARK

COAST LIVE OAK

CALIFORNIA SYCAMORE

WESTERN REDBUD

CATALINA IRONWOOD

ISLAND BUSH SNAPDRAGON

COMMON YARROW

SLENDER SEDGE

PURPLE SAGE

CALIFORNIA LILAC

WHITE SAGE

NATIVE BLUE RYE

DEER GRASS

COFFEEBERRY

MANZANITA, BUSH POPPY

LOW GROWING NATIVE HUMMINGBIRD AND BUTTERFLY PLANTS

TURF PLAY AREA AND MEADOW WITH NATIVE PLANTINGS (BACKGROUND)

PLANT PALETTE

NEIGHBORHOOD PARK

Botanical	Common
Cercis occidentalis	Western Redbud
Cupressus macrocarpa	Monterey Cypress
Lyonothamnus floribundus asplenifolius	Fernleaf Catalina Ironwood
Platanus racemosa	California Sycamore
Quercus agrifolia	Coast Live Oak
Quercus tomentella	Island Live Oak

PARK NATIVE SHRUBS

Arctostaphylos densiflora 'Howard McMinn'	Howard McMinn Manzanita
Arctostaphylos x 'John Dourley'	John Dourley Manzanita
Artemisia californica	California Sagebrush
Ceanothus x 'Dark Star'	California Lilac
Dendromecon harfordii	Island Bush Poppy
Leymus condensatus 'Canyon Prince'	Native Blue Rye
Rhamnus californica 'Mound San Bruno'	California Coffeeberry
Rhus integrifolia	Lemonade Berry
Ribes viburnifolium	Catalina Perfume
Salvia leucophylla	Purple Sage

LOW GROWING NATIVE HUMMINGBIRD & BUTTERFLY PLANTS

Baccharis pulularis 'Pigeon Point'	Coyote Brush
Ceanothus griseus horizontalis	Carmel Creeper
Encelia californica	California Encelia
Epilobium canum	Hummingbird Trumpet
Erigeron glaucus 'Wayne Roderick'	Seaside Daisy
Eriogonum fasciculatum	Common Buckwheat
Eriophyllum confertiflorum	Golden Yarrow
Eschscholzia californica	California Poppy
Galvezia speciosa	Island Bush Snapdragon
Isocoma menziesii decumbens	Decumbent Goldenbush
Lessingia filaginifolia 'Silver Carpet'	Branching Sea Aster
Lupinus succulentus	Arroyo Lupine
Mimulus aurantiacus	Sticky Monkey Flower
Muhlenbergia rigens	Deer Grass
Salvia apiana	White Sage
Sisyrinchium bellum	Blue Eyed Grass
Stipa pulchra	Purple Needle Grass

MEADOW WITH NATIVE PLANTINGS

Achillea millefolium	Common Yarrow
Agrostis pallens	Thingrass
Calamagrostis foliosa	Reed Grass
Carex pansa	Sanddune Sedge
Carex praegracilis	Slender Sedge
Carex tumulicola	Berkeley Sedge
Deschampsia cespitosa	Tufted Hair Grass
Eschscholzia californica	California Poppy
Festuca rubra 'Molate'	Molate Fescue
Layia platyglossa	Tidy Tips
Lupinus succulentus	Arroyo Lupine
Muhlenbergia capillaris	Pink Muhly
Muhlenbergia dubia	Pine Muhly
Muhlenbergia lindheimeri	Lindheimer's Muhly
Muhlenbergia rigens	Deer Grass
Stipa pulchra	Purple Needle Grass

LAWN

Festuca arundinacea 'Marathon II'	Marathon II Sod
Agrostis pallens	Thingrass sod or seed

LANDSCAPE DESIGN INTENT

GENERAL DESIGN :
THE LANDSCAPE DESIGN GRACEFULLY BLENDS THE EXISTING WILLOW SPRINGS NEIGHBORHOOD WITH THE PROPOSED NORTH WILLOW SPRINGS PROJECT BY USING A SIMILAR PLANT PALETTE AND CARRYING THE TWO RAIL FENCE ALONG CAMINO VISTA. GRASSY MEADOWS OF NATIVE AND CLIMATE ADAPTED PLANTS PLANTED WITH LARGE TREES CREATE AN INVITING STREETSCAPE WHILE FILTERING AND RETAINING STORM WATER.

WATER USE :
THE PROPOSED PLANT PALETTE FEATURES TOUGH, LOW-MAINTENANCE WATER-WISE PLANTS. THE LANDSCAPE IRRIGATION SYSTEMS WILL BE COMPRISED OF EFFICIENT DRIP IRRIGATION AND STREAM ROTATOR HEADS OPERATED BY A CLIMATE-BASED SMART CONTROLLER WITH AN ON-SITE WEATHER MONITORING STATION.

NEIGHBORHOOD PARK :
THE PARK IS SITED ATOP THE KNOLL AND FEATURES A LEVEL GRASSY PLAY LAWN AND PICNIC AREA SURROUNDED BY BEAUTIFUL NATIVE FLOWING PLANTS. THE LOW, DROUGHT TOLERANT COASTAL SAGE SCRUB PLANTS PROVIDE NECTAR FOR BUTTERFLIES AND FOOD AND FORAGE FOR BIRDS. LOVELY FLOWERING NATIVE SHRUBS AND MAJESTIC TREES SUCH AS COAST LIVE OAKS, ISLAND OAK, AND SYCAMORE PLACED UPON MOUNDS FRAME THE PARK.

SITE AMENITY	UNITS	QUANTITY
Active Trail	LF	1,216
Park Bench	EA	6
BBQ	EA	2
Picnic Table	EA	7
Trash Can	EA	3
Recycle Can	EA	3
Ash Can for Charcoal	EA	2
Drinking Fountain	EA	1
Bike Parking	EA	1
Turf Level Play Area	SF	3,905
Meadow with Native Plantings	SF	22,703
Native Landscape	SF	43,517

TRUE NATURE
LANDSCAPE ARCHITECTURE
5266 Hollister Ave. Suite 250
Goleta, CA 93111
TrueNatureDesign.com
805-770-2100

HERITAGE RIDGE
Goleta, California
The Towbes Group, Inc

REGISTERED LANDSCAPE ARCHITECT
TIMBERLY J. TRUE
NO. 5596
SIGNATURE
EXP. DATE
STATE OF CALIFORNIA
PRELIMINARY NOT FOR BIDDING OR CONSTRUCTION

SCALE: 1" =30'-0"
0 15' 30' 60'

8/28/14
JOB NO. 1313

CL-3

PRELIMINARY PARK LANDSCAPE PLAN

Appendix F: Technical Review of Coastal Sage Scrub (CSS) Environmentally Sensitive Habitat Area (ESHA) for the North Willow Springs Project

DUDEK

621 CHAPALA STREET
SANTA BARBARA, CALIFORNIA 93101
T 805.963.0651 F 805.963.2074

MEMORANDUM

To:	The Towbes Group Mr. Craig Minus
From:	Dudek John H. Davis IV, MS, CE, Senior Ecologist Heather Moine, Biologist
Subject:	Technical Review of Coastal Sage Scrub (CSS) Environmentally Sensitive Habitat Area (ESHA) for the North Willow Springs Project
Date:	April 10, 2014
Attachment(s):	Figure – Project Parcels

This memo provides a technical review of the City of Goleta (City) designated Coastal Sage Scrub (CSS) Environmentally Sensitive Habitat Area (ESHA) within the North Willow Springs project site in the City of Goleta (City), California. Per Resolution No. 12-46 (Resolution; City of Goleta 2012), the City updated their General Plan to remove the ESHA designation from the Willow Springs II project site, adjacent to and south of the North Willow Springs project site. To determine if removal of an ESHA designation is appropriate for the coyote brush scrub on the North Willow Springs project site, Dudek evaluated current site conditions and compared the results to the biological resources evaluation of the sites that was used as the basis for the Resolution.

On February 4, 2009, Dudek prepared a *Focused Biological Resource Evaluation of Mapped Environmentally Sensitive Habitat Areas, Willow Springs II Project* (hereafter referred to as Evaluation; Dudek 2009a) which reviewed the biological resources on the Willow Springs II project site and vicinity, specifically the coastal sage scrub designated ESHA. The Evaluation defined "Willow Springs II project site and vicinity" as the area "bound by Hollister Avenue to the south, Los Carneros Road to the west, the Union Pacific Railroad and U.S. 101 to the north, and mixed-use development to the east". The Evaluation, therefore, included both sites: Willow Springs II and North Willow Springs.

A component of the Evaluation was a field investigation of the sites to determine if the previously mapped CSS ESHA met the current definitions as defined in the City's General Plan/Coastal Land Use Plan (GP/CLUP) and Coastal Zoning Ordinance. According to the Goleta Coastal Zoning Ordinance 35:11 (1997), an ESHA is any area "*which contains unique natural*

resources and/or endangered species of animal or plant life, and existing and potential development may have the impact of despoiling or eliminating these resources".

The Evaluation of the designated CSS ESHA found that the "[existing] habitat composition and structure likely does not support, nor does it have the ability to support, an especially rich and diverse plant and/or wildlife population associated with an ESHA." Instead a disturbed coyote brush shrub with low biological diversity existed on the sites. Therefore, it was concluded that the disturbed coyote brush scrub is not a sensitive plant community and does not meet the City's definition of ESHA for the sites.

The Towbes Group, owner of the Willow Springs sites, requested a GP/CLUP amendment to remove the CSS ESHA designation from the within the Willow Springs sites. The City's Resolution (City of Goleta 2012), identified the area to be removed from ESHA as Willow Springs II, approximately 6.0 acres comprised of six parcels (*see attached Figure*).

The parcels included:

- Assessor Parcel Numbers ("APNs") 073-060-044 to 073-060-048
- The adjacent parcel underlying the Via Luisa public right of way easement; as well as
- The land underlying the extension of the Camino Vista Road

As a result, the City's Resolution (City of Goleta 2012) interpreted the scrub to be removed from CSS ESHA as the Willow Springs II project site. The lifting of the ESHA designation did not extend to the Willow Spring North project site as presented in the Evaluation. A total of 2.19 acres of CSS ESHA designation currently remains on a portion of North Willow Springs project site (*again please refer to the attached Figure*).

On January 22, 2014, Dudek biologists visited designated CSS ESHA on the North Willow Springs project site to re-evaluate the coyote brush scrub. As previously documented in the Evaluation, the area consists of disturbed scrub habitat with approximately 50% coyote brush (*Baccharis pilularis*) and approximately 50% cover of non-native grasses and forbs, including, but not limited to wild sweet fennel (*Foeniculum vulgare*), pampas grass (*Cortaderia jubata*), short-podded mustard (*Hirschfeldia incana*), Harding grass (*Phalaris aquatica*), and ripgut brome (*Bromus diandrus*).

As stated in the Evaluation:

Although coyote brush scrub, in a disturbed state, is present on site, this community does not meet the City's definition of ESHA and would not be considered a special-status community as it relates to the subject property for the following reasons:

> *1. Because coyote brush is an efficient post-disturbance colonizer, this species likely has been colonizing the site since the mid-1990s when mass grading operations ended, and the Willow Springs II project site and vicinity were left undeveloped as a flat, fallow, infill site. Once the grading operations ceased, this community likely began to develop due to the presence of an offsite seed source to the northwest. The coyote brush scrub on site lacks the species diversity and vegetative structure typically seen in higher quality coastal sage scrub habitats. Because the habitat onsite does not support characteristic coastal sage scrub species, it does not meet the definition of coastal sage scrub as it is defined by Holland (1986) and thus does not meet the criteria for ESHA in CE 1.3.*
>
> *2. Coyote brush scrub is not recognized by the State of California as a special community that is known or believed to be of high priority for inventory in the CNDDB (CDFG 2003) and thus is not considered a rare or especially valuable resource.*
>
> *3. The coyote brush scrub habitat on site is disturbed, highly fragmented, and bound by intensive land uses including major roadways (Los Carneros Road and Highway 101) and industrial and residential development, and thus would not provide suitable habitat for rare, threatened, and/or endangered plant or wildlife species.*
>
> *4. In terms of providing habitat or facilitating wildlife movement for special-status wildlife species, the habitat on site is isolated from contiguous blocks of high quality native habitat and has limited connectivity to areas of high biological value due to the presence of chain link fences, existing major arterial roadways, and building infrastructure, which interrupts wildlife movement, results in habitat fragmentation, reduces the biological productivity of remaining isolated habitats, and thus discourages use.*

Based on the Evaluation, Resolution No. 12-46, and the January 22, 2014 site visit, Dudek concludes that the 2.19 acres of disturbed coyote brush scrub within North Willow Springs project site, currently designated as CSS ESHA, is not a sensitive plant community, and as such does not meet the City's definition of ESHA. Dudek recommends that the CSS ESHA designation be removed from the North Willow Springs project site.

References

CDFG (California Department of Fish and Game, Natural Diversity Data Base). 2003. The Vegetation Classification and Mapping Program List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. September.

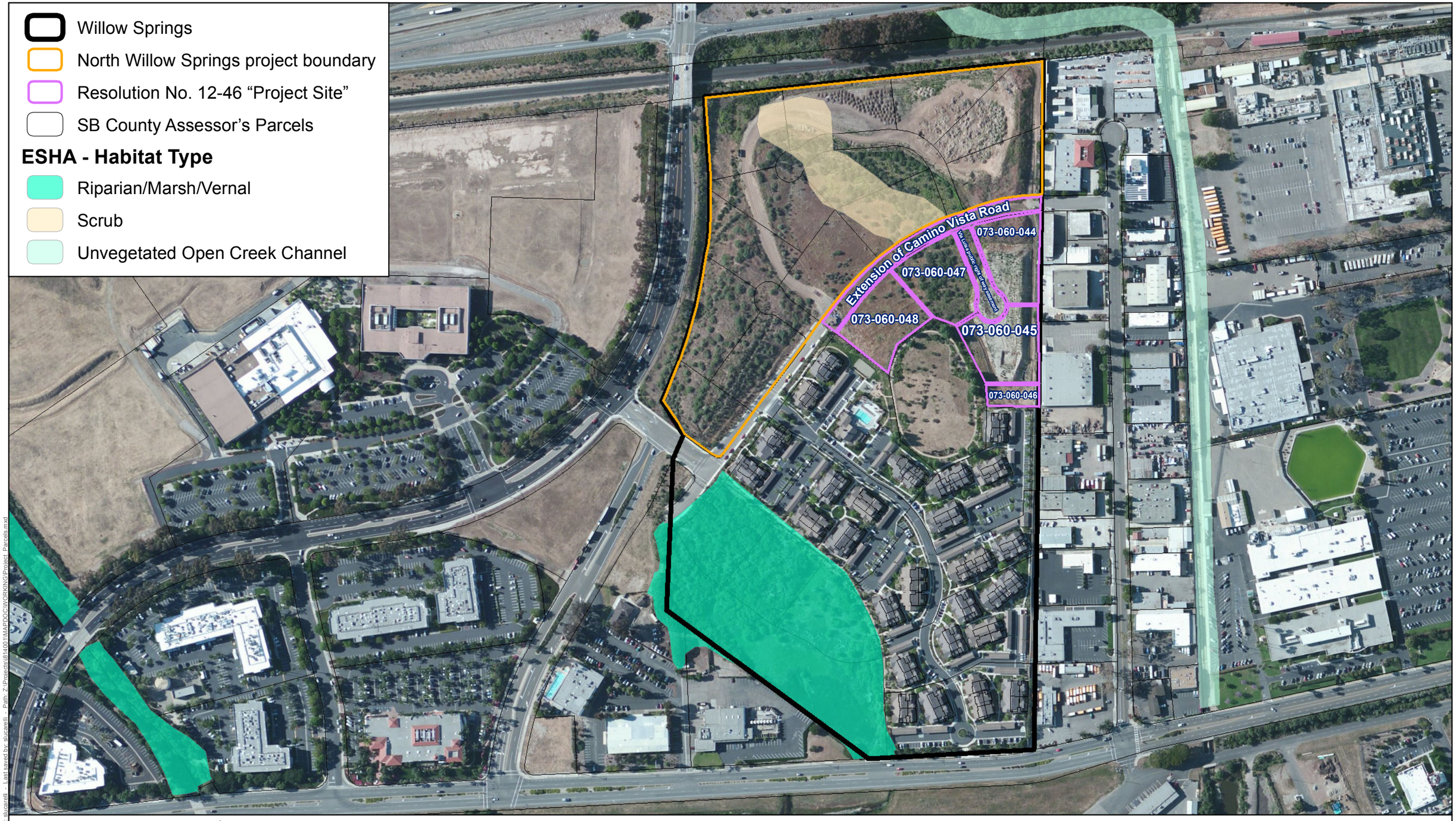
City of Goleta 2012. Resolution No. 12-46, A Resolution of the City Council of the City of Goleta, California, Adopting Amendments to the General Plan/Coastal Land Use Plan Open Space Element, Conservation Element, and Safety Element; Case Nos. 11-080-GPA and 11-081-GPA. July 17, 2012.

Dudek 2009a. *Focused Biological Resource Evaluation of Mapped Environmentally Sensitive Habitat Areas, Willow Springs II Project, City of Goleta, California*. February 4, 2009.

Dudek 2009b. *Coastal Sage Scrub Mitigation Plan, Willow Springs II Project, City of Goleta, California*. August 17, 2009.

Dudek 2012. *Focused Biological Resource Evaluation of Mapped Environmentally Sensitive Habitat Areas and Coastal Sage Scrub Mitigation Plan Willow Springs II Project, City of Goleta, CA.* November 19, 2012.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game. Sacramento, CA.



N

Feet

0 230 460

1 inch = 276 feet

SOURCE: ESHA from City of Goleta (5/2012)

ROW Parcels are estimated as ROW data intentionally left out of Santa Barbara County Assessor's Parcels

DUDEK

Project Parcels

North Willow Springs

Date: 1/15/2014 Created by: slucarelli Last saved by: slucarelli Path: Z:\Projects\j814001\MAPDOC\WORKING\Project_Parcels.mxd

Appendix G: U.S. Army Corps of Engineers 404 Permit No. 95-50087-DJC

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
300 NORTH LOS ANGELES STREET
LOS ANGELES, CALIFORNIA 90012

May 16, 1995

REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Branch

Albert Galen, Executor
Estate of Albert Levinson - Gen. Partner
Los Carneros Community Associates
2300 East Imperial Highway, 7th Floor
El Segundo, California 90245

Dear Mr. Galen:

Reference is made to your application (No. 95-50087-DJC) dated February 3, 1995, for a Department of the Army Permit. Enclosed are two copies of a draft permit authorizing you to fill 2.58 acres of wetlands located at your property on the north east corner of Los Carneros Boulevard and Hollister Avenue near Goleat, Santa Barbara County, California.

THIS PERMIT WILL NOT BECOME VALID UNTIL YOU HAVE TAKEN ALL OF THE FOLLOWING STEPS:

1. The owner or authorized responsible official must sign and date the two copies of the permit indicating that he/she agrees to the work as described and agrees to comply with any and all conditions stated in the permit.

2. The signer's name and title, if any, must be typed or printed below the signature.

3. Both signed copies of the permit must be returned to the Corps of Engineers at the above address (Attention: CESPL-CO-R) A pre-addressed envelope is enclosed for your convenience. Upon receipt of the signed copies, the Corps of Engineers will sign and forward one of the copies back to you.

4. When returning the signed copies of the permit, include a check for the processing fee of $100, payable to the Finance and Accounting Officer USAED LA.

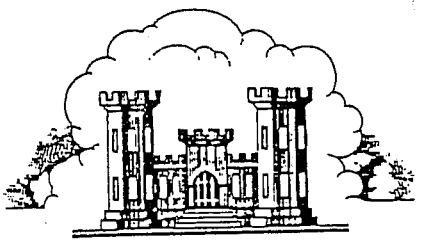
If we do not receive the signed copies of the permit within 30 days from the date of this letter, your request for the proposed work will be withdrawn.

Also enclosed are pre-addressed postcards for you to notify this office regarding the dates for beginning and completing the authorized activity.

Sincerely,

Carl F. Enson, P.E.
Chief, Construction-
Operations Division

Enclosure(s)



LOS ANGELES DISTRICT
U.S. ARMY CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY PERMIT

Permittee: Albert Galen, Executor
Estate of Albert Levinson - General Partner
Los Carneros Community Associates
2300 East Imperial Highway, 7th Floor
El Segundo, California 90245

Permit Number: 95-50087-DJC

Issuing Office: Los Angeles District

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To fill 2.58 acres of wetlands to facilitate construction of a road (Calle Koral) and a residential development and to create 2.16 acres of jurisdictional wetlands on the project site as shown on the attached drawings.

Project Location: Wetlands at the north east corner of Los Carneros Blvd. and Hollister Ave. adjacent to Carneros Creek and Goleta Slough near Goleta, Santa Barbara County, California

Permit Conditions

General Conditions:

1. The time limit for completing the authorized activity ends on May 16, 1998. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith

transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification from this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

Special Conditions: See attached sheet.

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt

completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

LOS CARNEROS COMMUNITY ASSOCIATES
BY ESTATE OF ALBERT LEVINSON, GENERAL PARTNER

PERMITTEE
LEONARD JAFFE

MAY 17, 1995
DATE

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

for Carl F. Enson, P.E.
Chief, Construction-
Operations Division

17 May 95
DATE

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

TRANSFEREE

DATE

SPECIAL CONDITIONS FOR 95-50087-DJC

1. The permittee shall use best management practices during construction, such as placement of hay bales or silt curtains, where site runoff would flow into on-site wetlands or the drainage culvert beneath Hollister Blvd. to reduce the potential for sedimentation into Los Carneros Creek and Goleta Slough. The permittee shall seed all newly filled and disturbed areas with native grass species.

2. Concurrent with the filling of 2.58 acres of wetlands authorized by this permit, the applicant will create a minimum of 2.13 acres of wetlands on-site, as described in the February 3, 1995 Los Carneros Wetlands Restoration and On-Site Mitigation Plan.

3. The applicant shall submit, for Corps review and approval, a $50,000 mitigation performance bond to assure successful implementation of the on-site mitigation (wetland creation) efforts. Prior to filling the 2.58 acres of wetlands authorized by this project, the bond shall be executed with a Corps approved surety. A determination of whether the on-site mitigation efforts were successful will be made by the Corps following a 5-year monitoring period in accordance with the February 3, 1995 Los Carneros Wetlands Restoration and On-Site Mitigation Plan.

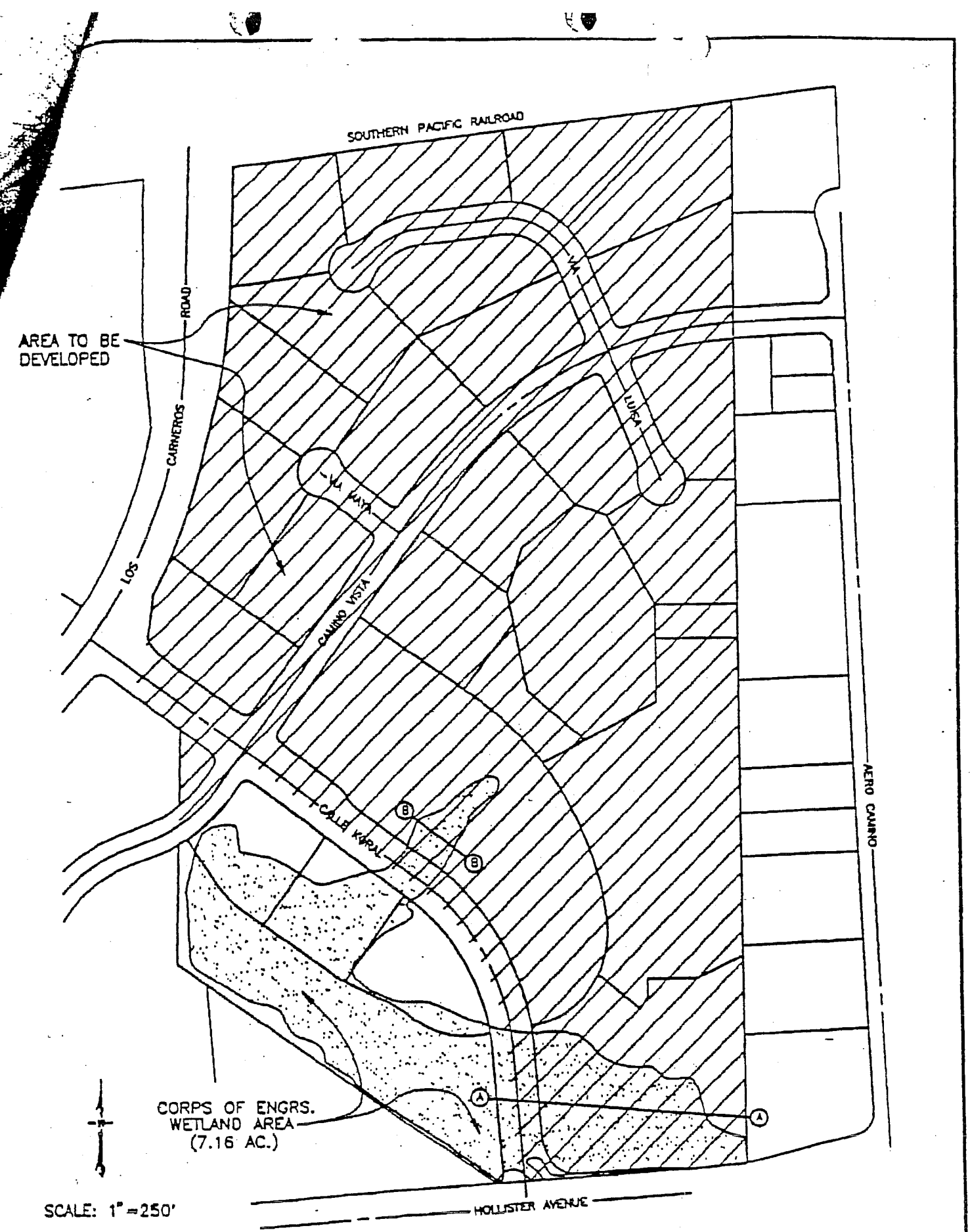
4. The Applicant shall preserve the unfilled and created wetlands on the development site through recordation of a deed restriction precluding all development activities from occuring except for those activities necessary for the creation, maintenance, monitoring, and management for wetland habitat purposes. The language of this deed restriction shall be approved by the Corps' Office of Counsel prior to recordation. Recordation shall occur prior to opening of Calle Koral to public use.

5. Prior to filling the 2.58 acres of wetlands authorized by this permit, $50,000 will be provided to the University of California, Santa Barbara. Use of these funds shall be restricted to wetland habitat enhancement, creation, and/or restoration.

6. Prior to filling the 2.58 acres of wetlands authorized by this permit, $75,000 will be granted to the County of Santa Barbara for the purpose of wetlands restoration in accordance with the Condition of Approval C.13 placed on approval of the Tentative Map. [Note: the applicant had previously provided these funds to the County. As such, the applicant is currently in compliance with this condition.]

7. Prior to filling the 2.58 acres of wetlands authorized by this permit, $650,000 shall be placed into an escrow account in accordance with the Agreement between Los Carneros Community Associates and the California Fish and Game Commission dated May 15, 1995. Use of these funds by the Commission shall be coordinated with the Corps on a project by project basis and restricted to wetland habitat enhancement, creation, and/or restoration as stipulated in the Agreement. Not more than 10% of the funds shall be used for administrative or planning purposes. No less than 90% of the funds shall be used for implementation or construction of enhancement, creation, and/or restoration projects in the Goleta Slough area or its watershed.

8. The applicant must comply with all 21 special conditions submitted by Corps letter of March 19, 1995 to (and later approved by) the State Historic Prervation Office which were developed to avoid all impacts to site CA-SBa-56. Of these 21 conditions, five (#'s 13, 14, 15, 16, and 17) related only to CA-SBa-52, which is a cultural resource site located near a previously planned wetland mitigation area. This mitigation area is not longer part of the applicant's proposal. Therefore, the applicant would not be required to comply with those 5 conditions. Approval of these conditions by SHPO and ACHP constitutes compliance with Section 106 of the National Historic Preservation Act.



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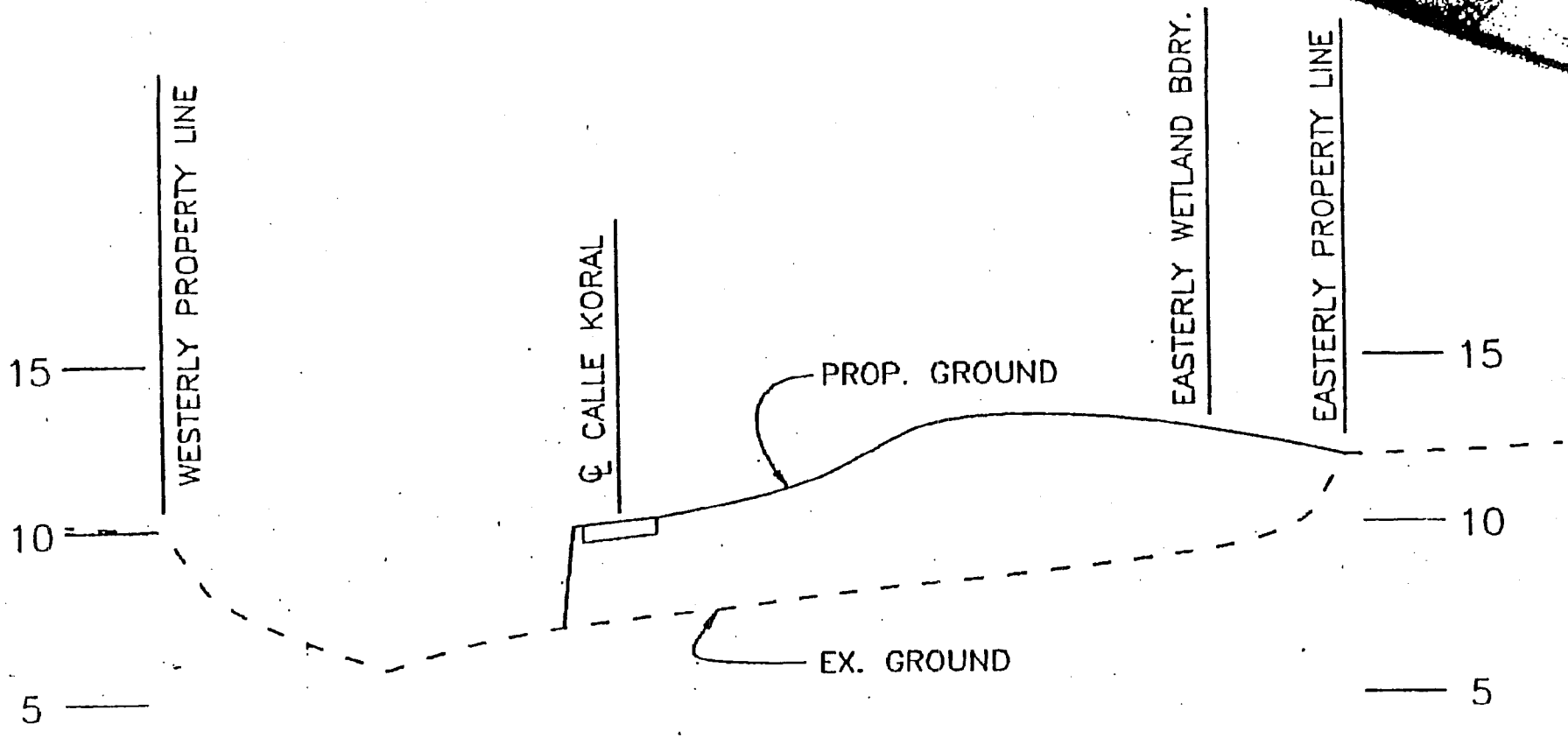
FILE: COCAPP3

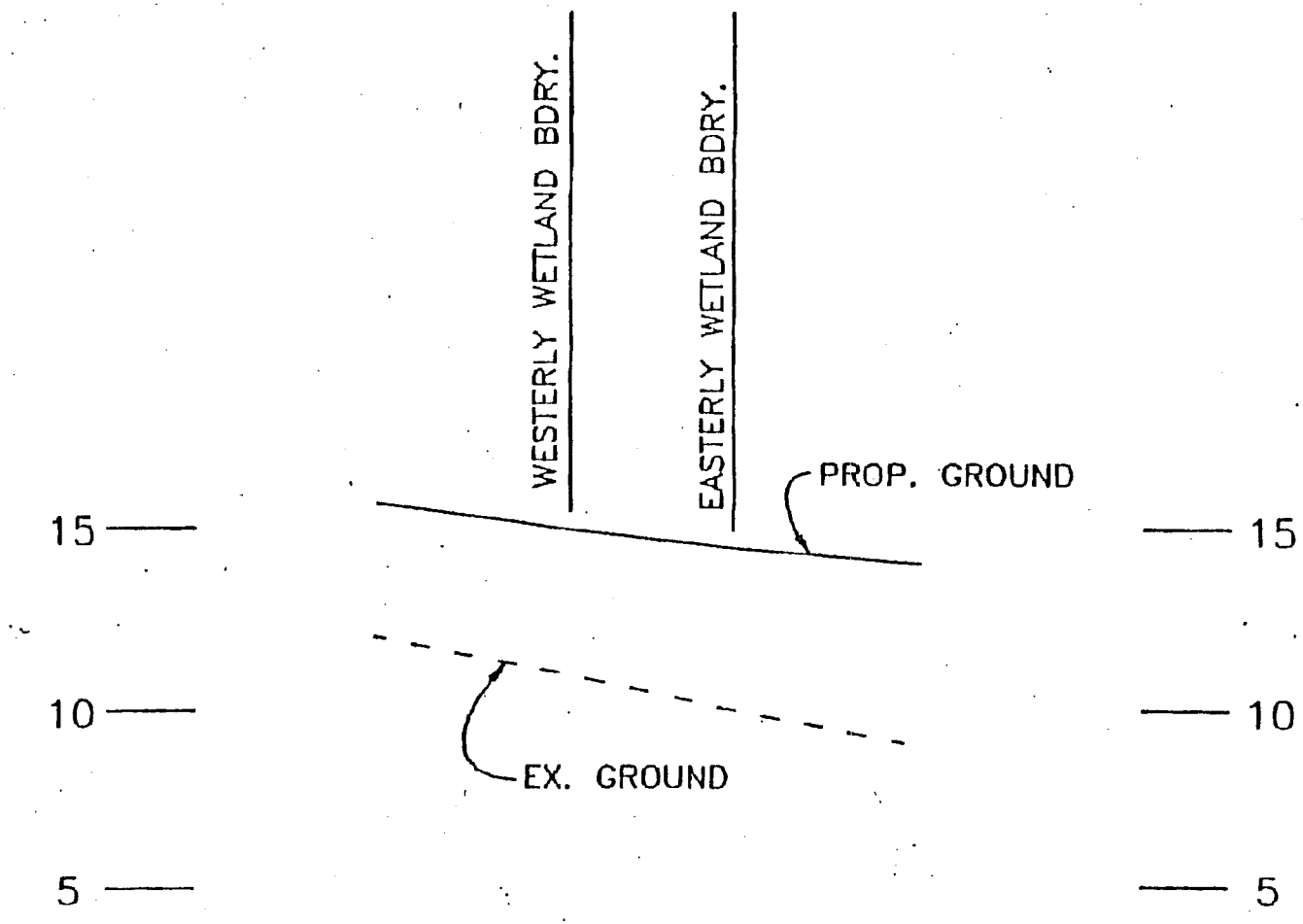
SITE PLAN



CROSS SECTION A–A

SCALE: HORIZ. 1" = 100'
VERT. 1" = 5'

Penfield & Smith
ENGINEERS • SURVEYORS
FILE: COEAPP4



CROSS SECTION B–B

SCALE: HORIZ. 1" = 100'
VERT. 1" = 5'

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ENGINEERS • SURVEYORS
FILE: COEAPP5

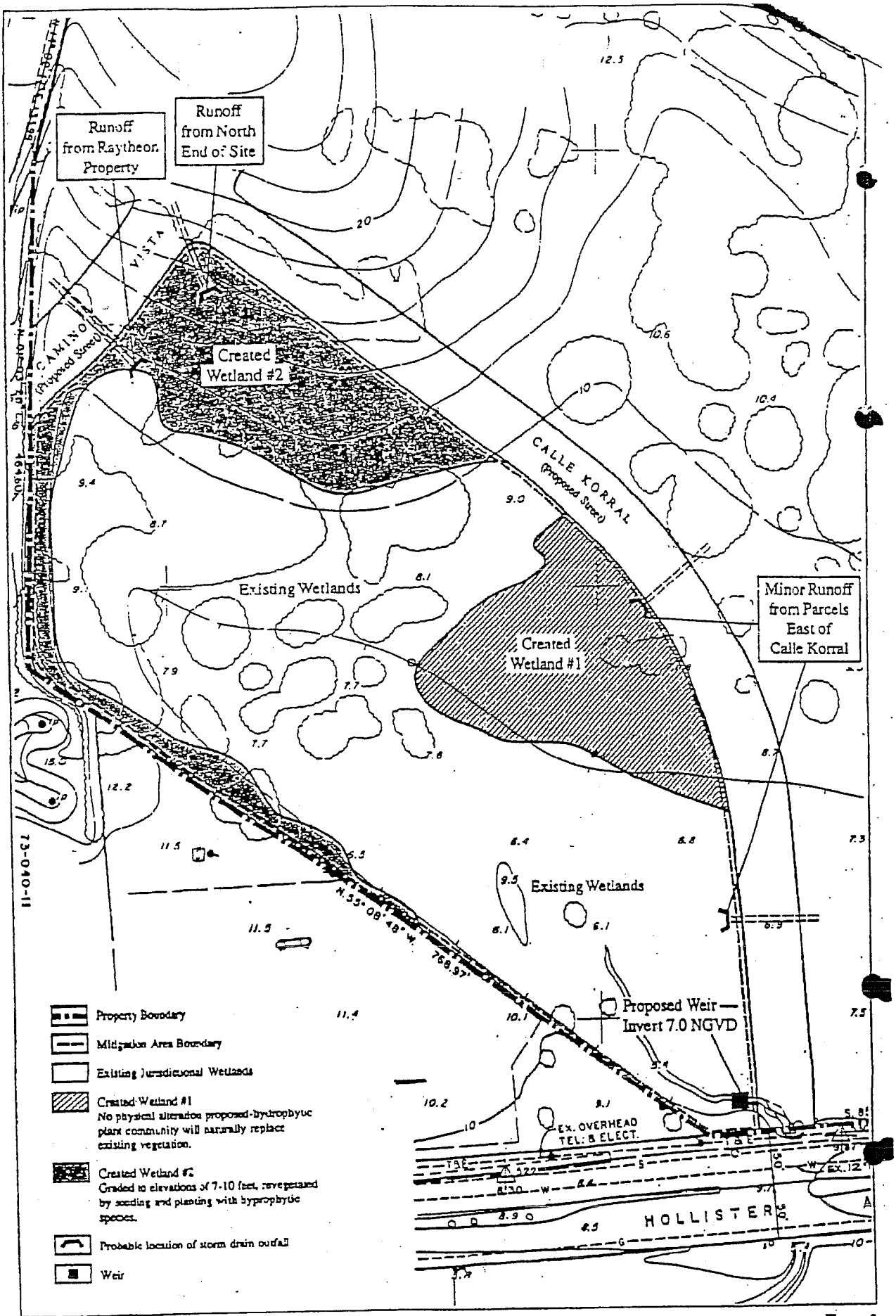

Figure 3

N

LSA

Scale in Feet
0 10

Los Caneros On-site Mitigation

Appendix H

Environmental Noise Study Report and Supplementary Noise Modeling

DUDEK

621 CHAPALA STREET
SANTA BARBARA, CALIFORNIA 93101
T 805.963.0651 F 805.963.2074

May 28, 2015 8169

The Towbes Group, Inc.
Attn: Craig Minus
21 East Victoria Street, Suite 200
Santa Barbara, California 93101

Subject: ***North Willow Springs Project, City of Goleta – Environmental Noise Study Report***

Dear Craig:

Dudek has completed an Environmental Noise Study Report for the North Willow Springs project located in the City of Goleta, California (Figures 1 and 2). The purpose of this report is to satisfy the City of Goleta's requirement for an acoustical analysis for the project.

The report presents a summary of the city's noise criteria applicable to the project (Section 1), a project background discussion (Section 2), the existing noise environment (Section 3), a future noise impacts analysis (Section 4), findings (Section 5), and conclusions (Section 6), and mitigations (Section 7).

Data used in our analysis were taken from project plans prepared by MAC Design Associates, dated December 13, 2013. Traffic volumes used in our analysis are based on data provided by Associated Transportation Engineers (ATE). A glossary of acoustical terms and definitions used in this report is included in Attachment 1.

1 NOISE CRITERIA

The City of Goleta's noise level thresholds for the project are:

- Interior Living areas: 45 dBA CNEL.
- Exterior Living areas:
  - 60 dBA CNEL if no mitigation is provided;
  - 65 dBA CNEL if mitigation is provided.
- Recreation / play areas: 65 dBA CNEL.

The above noise level thresholds have been used to evaluate the noise impacts for the project's interior and outdoor living areas.

2 PROJECT BACKGROUND

The project occupies 16.2 acres, and is located at the southwest corner of Los Carneros Road and U.S. Highway101 in the City of Goleta, California (Figures 1 and 2). The project consists of a total of 360 multi-family homes within eight separate 2- and 3-story buildings, with associated outdoor recreational facilities (pool areas, etc.), as well as a public park. The proposed site plan for the development is illustrated in Figure 3.

3 EXISTING NOISE ENVIRONMENT

The project site is primarily exposed to traffic noise from U.S. Highway 101 and train noise from the Union Pacific Railroad line, located to the north of the project site. The U.S. Highway 101 carries a current traffic volume of approximately 71,000 average daily trips (ADT) (Source: Caltrans). The existing noise environment at the site was monitored on Thursday through Friday, March 13–14, 2014. One short-term (6-minute duration) noise measurement and one long-term (24-hour duration) noise measurement was conducted on site. Both measurements were conducted in the same location (see Figure 3); adjacent to the northern project boundary, approximately mid-site in the east-west direction. During the short-term noise measurement, traffic on U.S. Highway 101 was counted and noted. The traffic counts and the short-term noise level data were used to calibrate the traffic noise model.

The noise measurements were taken using a Larson Davis 700 integrating sound level meter, with A-weighting and "slow" response settings. This sound level meter meets the current American National Standards Institute standard for a Type 1 precision sound level meter. The sound level meter was calibrated before and after the readings. The measurement microphone was located at a height of 5 feet above the graded surface.

During the short-term noise measurement, the principal contributor to the ambient noise environment at the project site was traffic noise from the U.S. Highway 101. The U.S. Highway 101 traffic was observed to move smoothly during the measurements. Other noise sources observed during the measurements included distant construction noise. No trains passed by the site during the short-term noise measurement, although rail noise was a contributor during the long-term noise measurement. The noise level measurement results are presented in Table 1.

Santa Barbara Airport is located approximately 0.55 miles (3,000 feet) south of the project site. According to the Santa Barbara Airport Noise Information Website (http://www.flysba.com/inside_sba/noise_abatement, accessed 2/5/2014), the project site is located approximately 1,200

feet outside of the airport's Year 2008 60 dB CNEL noise contour and approximately 1,500 feet outside of the airport's Year 2025 60 dB CNEL noise contour.

Table 1
Measured Noise Levels

Monitor Location	Date/Time	Leq[1]	CNEL
Adjacent to northern project boundary, approximately mid-site in east-west direction	3/13/2014 1:10 p.m. - 1:16 p.m.	54 dBA	n/a
	3/13/2014 2:00 p.m. - 3/14/2014 2:00 p.m.	62 dBA	67 dBA

Notes: Weather conditions: Temperature 64 degrees F; 69% Relative humidity; partly cloudy skies; 2 mph southerly wind.
[1] Equivalent Continuous Sound Level.

4 FUTURE NOISE IMPACTS ANALYSIS

U.S. Highway 101 vehicular traffic and trains along the UPRR rail line (and, along the project's west side, vehicle traffic on Los Carneros Road) are expected to remain the primary noise sources at the project site in the future. The future noise levels at the project's building facades and the outdoor recreational areas (pools areas, park) were calculated using the Federal Highway Administration's (FHWA) Traffic Noise Model (TNM v. 2.5). The traffic noise model was calibrated using the short-term noise level shown in Table 1. The difference between the monitored and calibrated noise levels is less than 1 dBA, which is well within the accuracy of the noise monitoring and modeling programs.

The following existing and future year (i.e., cumulative projects) AM/PM peak-hour traffic volumes used in this analysis were provided by Associated Transportation Engineers (ATE):

U.S. Highway 101 at Los Carneros Road:

- Existing: 5,898 AM / 5,843 PM
- Existing plus Project: 5,942 AM / 5,889 PM
- Cumulative: 7,047 AM / 8,978 PM
- Cumulative plus Project: 7,091AM / 9,024 PM

Los Carneros Road south of U.S. Highway 101:

- Existing: 1,901 AM / 2,380 PM
- Existing plus Project: 1,972 AM / 2,453 PM
- Cumulative: 2,739 AM / 3,266 PM
- Cumulative plus Project: 2,810AM / 3,333 PM

U.S. Highway 101 southbound off-ramp at Los Carneros Road:

- Existing: 352 AM / 144 PM
- Existing plus Project: 354 AM / 150 PM
- Cumulative: 526 AM / 184 PM
- Cumulative plus Project: 528AM / 190 PM

U.S. Highway 101 southbound on-ramp at Los Carneros Road:

- Existing: 431 AM / 1004 PM
- Existing plus Project: 466 AM / 1019 PM
- Cumulative: 559 AM / 1330 PM
- Cumulative plus Project: 594AM / 1339 PM

The vehicle mix on the U.S. 101 Highway is 91% automobiles, 6% medium trucks, and 3% heavy trucks (data provided by Caltrans). The vehicle mix used for Los Carneros Road is 95% automobiles, 2% medium trucks and 3% heavy trucks. The input into the computer model includes the above-referenced existing and future traffic volumes and vehicle mix, with an average vehicle speed of 65 mph along the U.S. 101 Highway, and 45 mph along Los Carneros Road.

Train noise emissions from operations along the UPRR tracks were evaluated using the results of the long-term noise measurement. The resultant combined traffic and rail noise levels at the proposed exterior building facades was calculated and presented using Cadna/A®. Cadna/A® is a computer program for the calculation and assessment of noise levels from transportation noise sources, industrial facilities and other noise sources. Cadna/A® uses internationally recognized algorithms (ISO 9613-2) for the propagation of sound outdoors to calculate noise effects. The program allows for input of all pertinent features (such as terrain or structures) that affect noise, resulting in a highly accurate estimate of existing and future noise levels. For this project, the most current site plan was utilized to input the estimated finished grade elevations and building footprints and heights. Based upon client information a planned developer-constructed masonry wall of approximately 6 foot in height along the northern and western project boundaries was included in the noise model.

The results of the future exterior noise analysis with a 6 foot high wall are summarized in Table 2 (modeled receiver locations are shown in Figure 4). A copy of the vehicle noise prediction model calculation sheets is included in Attachment 2.

Table 2
Cumulative plus Project - Modeled Exterior Noise Levels (dBA CNEL) – 6' High Wall at Northern and Western Project Boundaries

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
Building 1			
R1-1	60	59	--
R1-2	61	61	--
R1-3	58	57	--
R1-4	55	53	--
R1-5	43	43	--
R1-6	60	59	--
R1-7	60	60	--
R1-8	60	60	--
R1-9	61	60	--
R1-10	60	60	--
Building 2			
R2-1	61	61	--
R2-2	61	61	--
R2-3	61	61	--
R2-4	61	61	--
R2-5	59	59	--
R2-6	53	51	--
R2-7	54	53	--
R2-8	55	54	--
R2-9	54	54	--
R2-10	51	50	--
R2-11	57	56	--
R2-12	58	58	--

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
Building 4			
R4-1	65	64	--
R4-2	67	67	--
R4-3	68	67	--
R4-4	67	67	--
R4-5	67	67	--
R4-6	66	66	--
R4-7	67	67	--
R4-8	67	67	--
R4-9	68	67	--
R4-10	67	67	--
R4-11	65	64	--
R4-12	64	64	--
R4-13	64	64	--
R4-14	64	64	--
R4-15	60	58	--
R4-16	59	58	--
R4-17	53	52	--
R4-18	54	53	--
R4-19	53	52	--
R4-20	52	51	--
R4-21	52	51	--
R4-22	47	46	--
R4-23	61	60	--

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
Building 7			
R 7-11	48	48	55
R 7-12	48	48	55
R 7-13	55	54	58
R 7-14	54	54	58
R 7-15	46	45	52
R 7-16	59	59	63
R 7-17	54	54	62
R 7-18	63	62	66
R 7-19	65	64	67
Building 8			
R 8-1	66	66	71
R 8-2	66	66	71
R 8-3	66	66	71
R 8-4	67	66	71
R 8-5	67	67	71
R 8-6	66	66	71
R 8-7	67	67	71
R 8-8	67	67	71
R 8-9	67	67	71
R 8-10	67	67	71
R 8-11	66	65	69
R 8-12	57	57	60
R 8-13	63	63	66

Table 2
Cumulative plus Project - Modeled Exterior Noise Levels (dBA CNEL) – 6' High Wall at Northern and Western Project Boundaries

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R2-13	60	59	--
R2-14	60	60	--
R2-15	60	59	--
R2-16	57	56	--
R2-17	48	48	--
R2-18	48	48	--
R2-19	51	50	--
R2-20	50	49	--
R2-21	44	44	--
R2-22	44	44	--
R2-23	44	44	--
R2-24	45	45	--
R2-25	54	54	--
R2-26	58	58	--
R2-27	58	58	--
R2-28	58	58	--
R2-29	60	59	--
R2-30	61	61	--
Building 3			
R3-1	58	58	--
R3-2	59	59	--
R3-3	62	62	--
R3-4	64	64	--
R3-5	65	65	--

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R4-24	63	63	--
Building 5			
R 5-1	67	67	--
R 5-2	68	67	--
R 5-3	67	67	--
R 5-4	67	67	--
R 5-5	66	66	--
R 5-6	67	67	--
R 5-7	67	67	--
R 5-8	68	67	--
R 5-9	67	67	--
R 5-10	65	64	--
R 5-11	62	61	--
R 5-12	60	60	--
R 5-13	49	48	--
R 5-14	50	49	--
R 5-15	46	46	--
R 5-16	48	48	--
R 5-17	47	46	--
R 5-18	63	63	--
R 5-19	64	64	--
R 5-20	65	65	--
Building 6			
R6-1	54	54	58

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R 8-14	63	63	66
R 8-15	47	46	54
R 8-16	45	44	50
R 8-17	45	44	50
R 8-18	44	44	49
R 8-19	45	44	49
R 8-20	46	45	49
R 8-21	45	45	52
R 8-22	45	45	52
R 8-23	45	45	51
R 8-24	62	62	67
Pool / Recreation Areas			
Pool Rec 1	60	--	--
Pool Rec 2	60	--	--
Pool Rec 3	57	--	--
Pool Rec 4	60	--	--
Pool Rec 5	60	--	--
Pool Rec 6	57	--	--
Pool Rec 7	54	--	--
Pool Rec 8	51	--	--
Pool Rec 9	49	--	--
Pool Rec 10	57	--	--
Pool Rec 11	51	--	--
Pool Rec 12	51	--	--

Table 2
Cumulative plus Project - Modeled Exterior Noise Levels (dBA CNEL) – 6' High Wall at Northern and Western Project Boundaries

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R3-6	65	64	--
R3-7	65	65	--
R3-8	65	65	--
R3-9	65	66	--
R3-10	65	65	--
R3-11	65	65	--
R3-12	65	65	--
R3-13	65	64	--
R3-14	58	56	--
R3-15	56	55	--
R3-16	54	53	--
R3-17	52	52	--
R3-18	51	51	--
R3-19	51	50	--
R3-20	51	51	--

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R6-2	55	55	58
R6-3	57	57	60
R6-4	57	57	60
R6-5	57	57	60
R6-6	45	44	49
Building 7			
R 7-1	68	68	72
R 7-2	68	68	72
R 7-3	68	68	72
R 7-4	67	67	72
R 7-5	64	64	69
R 7-6	61	60	65
R 7-7	55	55	60
R 7-8	44	44	50
R 7-9	44	44	50
R 7-10	48	48	55

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
Pool Rec 13	51	--	--
Pool Rec 14	47	--	--
Pool Rec 15	46	--	--
Pool Rec 16	47	--	--
Pool Rec 17	46	--	--
Pool Rec 18	52	--	--
Pool Rec 19	55	--	--
Pool Rec 20	54	--	--
Pool Rec 21	59	--	--
Pool Rec 22	57	--	--
Pool Rec 23	57	--	--
Pool Rec 24	58	--	--
Pool Rec 25	56	--	--
Pool Rec 26	58	--	--
Pool Rec 27	58	--	--
Pool Rec 28	60	--	--
Pool Rec 29	60	--	--

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5 FINDINGS

5.1 Exterior Noise Levels

The data shown in Table 2 indicate that with a 6 foot high perimeter wall, cumulative plus project traffic and rail noise levels at the project site range up to 72 dBA CNEL at the Building 7 façade, and between 46 and 60 dBA CNEL in the outdoor recreation/pool areas. The outdoor recreation/pool noise levels meet the City of Goleta 65 dBA CNEL exterior noise level compatibility criteria for recreation/play areas without mitigation. Although the architectural design of the proposed project has not yet been finalized, it is planned that many if not all of the residential units would include balconies. Based upon the noise levels shown in Table 2, the City of Goleta's 60 dBA CNEL noise standard for exterior living areas would be exceeded at balconies facing U.S. 101 and the UPRR rail line as well as those facing Los Carneros Road.

In order to reduce the noise levels at the building facades, construction of an 8 foot high soundwall along the northern project boundary (facing the U.S. 101 and the UPRR rail line) is proposed as a mitigation measure. The resultant noise levels with the 8 foot high wall on the northern project boundary and the 6 foot high wall on the western project boundary were calculated in the same manner as described in Section 4. The results are summarized in Table 3. A figure showing representative cross-sections for exposures from U.S. 101 and the UPRR rail line as well as Los Carneros Road is provided as Figure 5.

As shown in Table 3, noise levels at first and second-floor uses would generally be reduced. With an 8 foot high wall the number of units in the 60-65 dBA CNEL range would be reduced by 17 and the number of units in the 66-70 dBA CNEL range would be reduced by 4; there would be no change in the number of units above 70 CNEL. Based upon the noise levels shown in Table 3, the City of Goleta's 65 dBA CNEL noise standard for exterior living areas with mitigation provided would be exceeded at balconies facing U.S. 101 and the UPRR rail line and Los Carneros Road unless additional mitigation is provided (refer to Section 7).

5.2 Interior Noise Levels

Standard construction materials and techniques used for residential developments in Southern California normally result in a minimum exterior to interior noise attenuation of 15 dBA with windows open and 20 dBA with windows closed. The data in Table 2 indicate that future noise levels at the façade are estimated to range between 43 and 72 dBA CNEL. Therefore, the interior noise level in the units is expected to range between be 28 and 57 dBA CNEL with windows open and between 23 and 52 dBA CNEL with windows closed. The noise levels would exceed the City of Goleta 45 dB CNEL interior noise level compatibility criteria with windows open or

closed. Thus, mitigation will be required in order to achieve compliance with the interior noise criterion (refer to Section 7).

Table 3
Cumulative plus Project - Modeled Exterior Noise Levels (dBA CNEL) – 8' High Wall at Northern Project Boundary, 6' High Wall at Western Project Boundary

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
Building 1			
R1-1	55	61	65
R1-2	57	63	65
R1-3	58	59	60
R1-4	54	56	57
R1-5	43	45	47
R1-6	58	60	61
R1-7	59	61	61
R1-8	59	60	61
R1-9	58	61	62
R1-10	56	61	64
Building 2			
R2-1	59	61	63
R2-2	58	61	63
R2-3	58	61	63
R2-4	58	61	63
R2-5	55	59	61
R2-6	49	51	55
R2-7	50	53	55
R2-8	52	55	57

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
Building 4			
R4-1	63	66	--
R4-2	66	68	--
R4-3	66	69	--
R4-4	66	68	--
R4-5	66	68	--
R4-6	65	67	--
R4-7	66	68	--
R4-8	65	68	--
R4-9	66	69	--
R4-10	66	69	--
R4-11	64	67	--
R4-12	63	67	--
R4-13	63	67	--
R4-14	63	67	--
R4-15	55	60	--
R4-16	55	60	--
R4-17	50	53	--
R4-18	50	54	--
R4-19	50	54	--

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
Building 7			
R 7-11	48	51	55
R 7-12	48	51	55
R 7-13	53	56	58
R 7-14	52	56	58
R 7-15	45	50	52
R 7-16	58	62	63
R 7-17	54	60	62
R 7-18	62	65	66
R 7-19	63	66	67
Building 8			
R 8-1	64	68	71
R 8-2	65	68	71
R 8-3	65	68	71
R 8-4	65	68	71
R 8-5	65	68	71
R 8-6	65	68	71
R 8-7	65	68	71
R 8-8	65	68	71
R 8-9	66	68	71

Table 3
Cumulative plus Project - Modeled Exterior Noise Levels (dBA CNEL) – 8' High Wall at Northern Project Boundary, 6' High Wall at Western Project Boundary

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R2-9	51	54	55
R2-10	47	50	53
R2-11	53	56	58
R2-12	55	58	60
R2-13	57	59	61
R2-14	57	60	61
R2-15	57	60	61
R2-16	55	60	61
R2-17	47	56	58
R2-18	47	54	56
R2-19	48	53	55
R2-20	47	52	54
R2-21	44	45	47
R2-22	44	45	47
R2-23	44	46	47
R2-24	45	46	48
R2-25	53	55	58
R2-26	57	59	60
R2-27	57	58	60
R2-28	57	58	60
R2-29	58	60	61
R2-11	53	56	58
Building 3			
R3-1	58	61	--

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R4-20	49	53	--
R4-21	49	52	--
R4-22	46	49	--
R4-23	59	62	--
R4-24	61	64	--
Building 5			
R 5-1	66	68	--
R 5-2	66	68	--
R 5-3	66	68	--
R 5-4	66	68	--
R 5-5	64	67	--
R 5-6	66	68	--
R 5-7	65	68	--
R 5-8	66	68	--
R 5-9	66	68	--
R 5-10	63	66	--
R 5-11	60	63	--
R 5-12	59	62	--
R 5-13	48	51	--
R 5-14	48	52	--
R 5-15	46	51	--
R 5-16	47	51	--
R 5-17	46	51	--
R 5-18	62	64	--

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R 8-10	66	68	71
R 8-11	64	67	69
R 8-12	56	58	60
R 8-13	62	64	66
R 8-14	62	64	65
R 8-15	46	50	54
R 8-16	44	46	50
R 8-17	44	46	49
R 8-18	44	46	48
R 8-19	44	46	49
R 8-20	45	47	49
R 8-21	45	48	52
R 8-22	45	48	52
R 8-23	45	47	51
R 8-24	60	64	66
Pool / Recreation Areas			
Pool Rec 1	57	--	--
Pool Rec 2	57	--	--
Pool Rec 3	55	--	--
Pool Rec 4	57	--	--
Pool Rec 5	57	--	--
Pool Rec 6	54	--	--
Pool Rec 7	53	--	--
Pool Rec 8	50	--	--

Table 3
Cumulative plus Project - Modeled Exterior Noise Levels (dBA CNEL) – 8' High Wall at Northern Project Boundary, 6' High Wall at Western Project Boundary

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R3-2	59	61	--
R3-3	62	64	--
R3-4	63	66	--
R3-5	63	66	--
R3-6	63	65	--
R3-7	63	65	--
R3-8	63	65	--
R3-9	63	65	--
R3-10	63	65	--
R3-11	63	65	--
R3-12	63	65	--
R3-13	63	65	--
R3-14	54	57	--
R3-15	52	55	--
R3-16	51	54	--
R3-17	52	54	--
R3-18	51	54	--
R3-19	51	54	--
R3-20	51	55	--

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
R 5-19	63	65	--
R 5-20	64	66	--
Building 6			
R6-1	54	56	58
R6-2	55	56	58
R6-3	56	58	60
R6-4	57	59	60
R6-5	56	58	59
R6-6	43	46	49
Building 7			
R 7-1	66	69	72
R 7-2	66	69	72
R 7-3	66	69	72
R 7-4	65	69	72
R 7-5	62	66	69
R 7-6	59	62	64
R 7-7	54	58	59
R 7-8	44	46	50
R 7-9	44	46	50
R 7-10	48	51	55

Name	1st Flr Façade	2nd Flr Façade	3rd Flr Façade
Pool Rec 9	48	--	--
Pool Rec 10	55	--	--
Pool Rec 11	49	--	--
Pool Rec 12	51	--	--
Pool Rec 13	51	--	--
Pool Rec 14	47	--	--
Pool Rec 15	46	--	--
Pool Rec 16	47	--	--
Pool Rec 17	46	--	--
Pool Rec 18	52	--	--
Pool Rec 19	53	--	--
Pool Rec 20	54	--	--
Pool Rec 21	58	--	--
Pool Rec 22	56	--	--
Pool Rec 23	56	--	--
Pool Rec 24	57	--	--
Pool Rec 25	56	--	--
Pool Rec 26	57	--	--
Pool Rec 27	57	--	--
Pool Rec 28	58	--	--
Pool Rec 29	57	--	--

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6 CONCLUSIONS

Dudek has completed an Environmental Noise Study Report for the North Willow Springs project located in the City of Goleta, California. The findings of the analysis indicate that the noise levels predicted in the shared recreation and poolside areas are expected to meet the City of Goleta 65 dBA CNEL exterior noise standard. Predicted exterior noise levels at the building facades having a direct view of U.S. 101, the UPRR rail line and Los Carneros Road would exceed the City's 65 dBA CNEL exterior noise standard unless additional mitigation is provided (refer to Section 7).

The interior noise levels in the units are estimated to range between 23 and 52 dBA CNEL with windows closed. These noise levels would exceed the City of Goleta's 45 dBA CNEL interior noise level compatibility criteria for residences unless mitigated (refer to Section 7)

7 MITIGATION

7.1 Outdoor Living Area Noise Level

Noise barriers at affected balconies of up to 7 feet in height are required to mitigate traffic and train noise to meet the City's 65 dBA CNEL noise level criterion for exterior living areas at the north facing balconies of Buildings 3, 4, 5, 7 and 8. The noise barriers may be constructed of a material such as tempered glass, acrylic glass, or any masonry material with a surface density of at least three pounds per square foot. The noise barriers should have no openings or cracks. Once building elevations and exterior design details are finalized, further noise evaluation should be performed in order to prescribe the height of necessary noise barrier per balcony area.

7.2 Interior Noise Level

To comply with the City and State's 45 dB CNEL interior noise standard, the residential dwelling units adjacent to U.S. 101 and the UPRR rail line to the north and Los Carneros Road to the west would most likely require mechanical ventilation system or air conditioning system and possibly sound-rated windows. Thus, prior to the approval of building permits, the applicant shall submit an interior noise study for approval by the City of Goleta Planning Department. This interior noise study would address the dwelling units facing U.S. 101, the rail line and Los Carneros Road within Buildings 1, 2, 3, 4, 5, 7 and 8. The interior noise study would ensure compliance with the City and State's 45 dB CNEL noise standard.

* * *

This completes our Environmental Noise Study Report for the North Willow Springs Project. Should you have any questions regarding the above information, please do not hesitate to call me at 805.963.0651.

Respectfully submitted,

Jonathan V. Leech, INCE
Senior Environmental Planner/Acoustician

Mike Greene, INCE Bd. Cert
Environmental Specialist/Acoustician

Att.: Figures 1–5
1, Acoustical Terms and Definitions
2, Noise Modeling Input/ Output

REFERENCES

City of Goleta. November 2006.
City of Goleta General Plan/Coastal Land Use Plan, Chapter 9.0, Noise Element.

Federal Highway Administration (FHWA). 2004. FHWA Traffic Noise Model, Version 2.5. Office of Environment and Planning.

Scott A. Schell, AICP, Associated Transportation Engineers (ATE). April 2014
Willow Springs North Project, City of Goleta, California – Traffic, Circulation and Parking Study.

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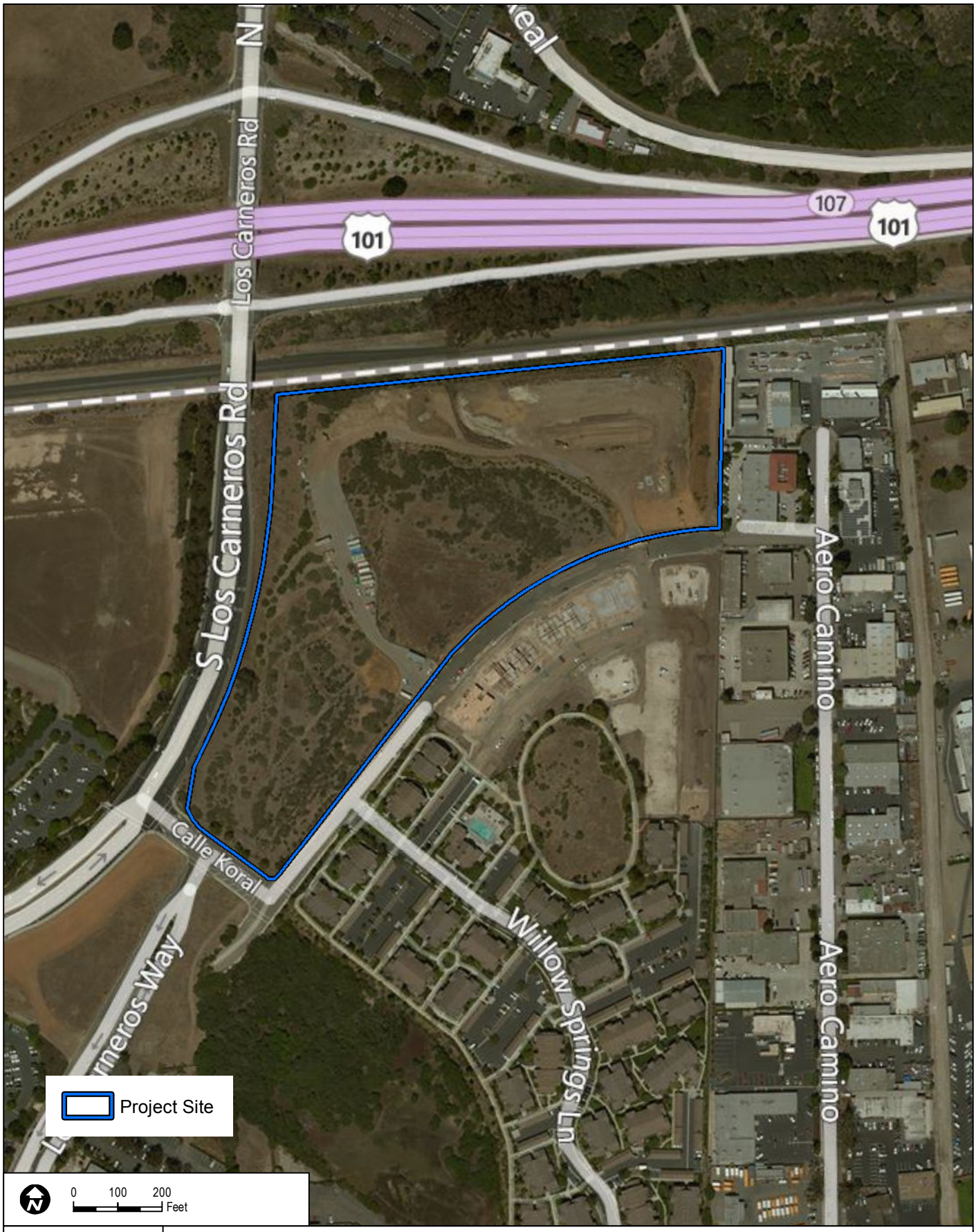
FIGURE 1

Regional Location Map

North Willow Springs Acoustical Assessment Report

Document Path: Z:\Projects\j816901\MAPDOC\MAPS\Noise Figs\Noise Fig1 Regional.mxd



DUDEK

SOURCE: BING MAPPING SERVICE

FIGURE 2
Project Vicinity Map

8169

North Willow Springs Acoustical Assessment Report

Document Path: Z:\Projects\j816901\MAPDOC\MAPS\Noise Figs\Noise Fig2 Vicinity.mxd

2-Story Workforce Housing

- 80 Homes
  - 56 One-Bedroom Homes
  - 24 Three Bedroom Homes
- Parking Per City of Goleta Zoning: 132 Spaces (See Note 1)
- Parking Provided: 117 Spaces (See Notes 2 and 3)
  - 60 Carport (incl. 2 accessible)
  - 57 Open (incl. 3 accessible)

Senior Housing

- 132 Homes
  - 108 One-Bedroom Homes
  - 24 Two-Bedroom Homes
- Three Story
- Parking per City of Goleta Zoning: 183 Spaces (See Note 1)
- Parking Provided: 152 Spaces (See Notes 2 and 3)
  - 112 carport (incl. 3 accessible)
  - 40 Open (Incl. 1 accessible + 1 van Accessible)
- Mailboxes to be located In the Lobby

3-Story Workforce Housing

- 148 Homes
  - 93 One-Bedroom Homes
  - 55 Two-Bedroom Homes
- Parking per City of Goleta Zoning: 233 Spaces (See Note 1)
- Parking Provided: 228 Spaces (See Notes 2 and 3)
  - 123 carport (incl. 3 accessible)
  - 101 Open (incl. 4 accessible + 1 van accessible)

Summary

Site Area:	16.2 Acres
Public Park:	2.0 Acres
Net Site:	14.2 Acres
Total Homes:	360 Homes • 132 Senior Homes • 228 Workforce Homes
Density:	22.2 Homes/Acre (25.3 Homes/Net Acre)

Los Carneros Road

Building 4

Building 5

Building 3

Turf Play Area/Basin

Rec Area

Leasing

Building 8

Building 7

Building 6

ST1/LT1

Public Park
2.0 Acres

14 spaces for Park

4,200 SF Infiltration Garden

15,100 SF Infiltration Garden

Rec Area

Building 2

Building 1

Van Drop-off

Calle Koral

Camino Vista

Two Story Massing (Typ.)

LEGEND

ST1/LT1 NOISE MEASUREMENT LOCATION

January 28, 2014

2012061

0 25 50 100

WILLIAM HEZMALHALCH ARCHITECTS, INC. © 2014

DUDEK

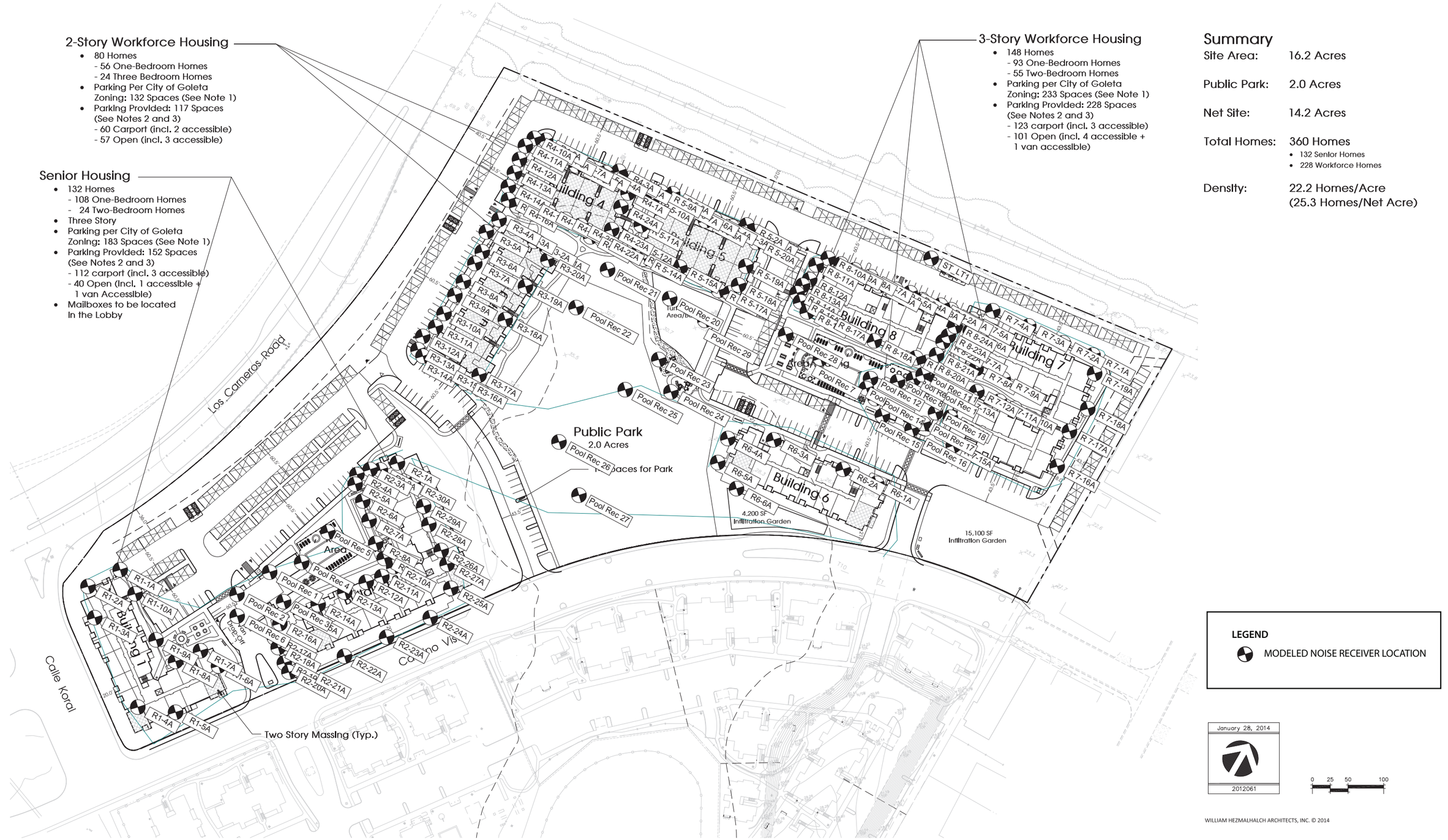
8169

SOURCE: SITE PLAN, WILLIAM HEZMALHALCH ARCHITECTS INC. 2014

FIGURE 3
Noise Measurement Location

North Willow Springs Acoustical Assessment Report

Z:\Projects\U8169001\MAPDOC\MAPS\NOISE Figs



WILLIAM HEZMALHALCH ARCHITECTS, INC. © 2014

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SOURCE: SITE PLAN, WILLIAM HEZMALHALCH ARCHITECTS INC. 2014

FIGURE 4
Modeled Noise Receiver Locations

North Willow Springs Acoustical Assessment Report

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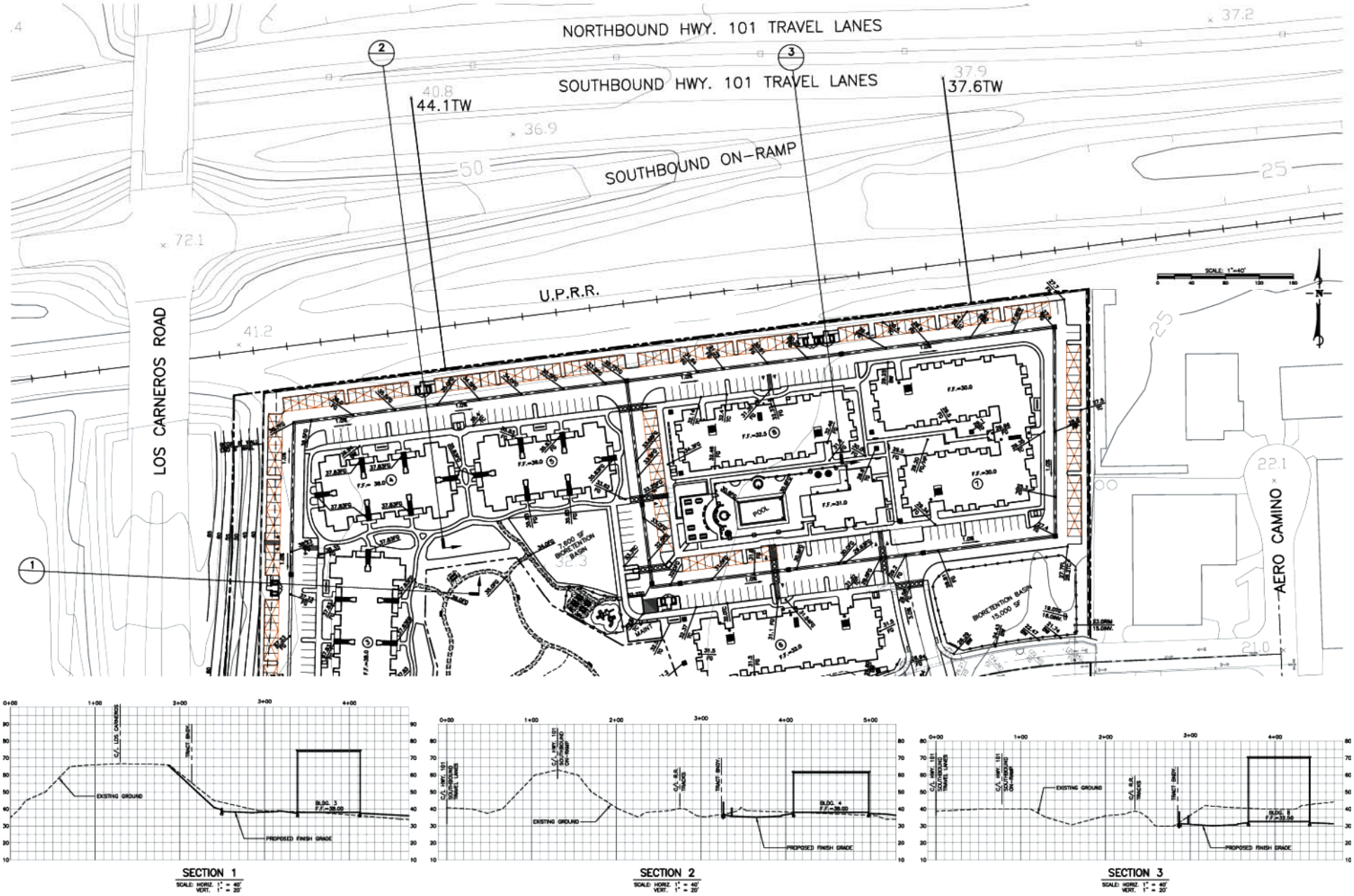

SOURCE: MAC Design Associates 2015

Figure 5
Cross Sections

DUDEK

Heritage Ridge

Date: 5/28/2015 Last saved by: mslevin Path: J:\Projects\6507\MAP\DOC\DOCUMENT_NAME\Figure 3 CrossSections.mxd

ATTACHMENT I

ACOUSTICAL TERMS AND DEFINITIONS

Term	Definition
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.
A-Weighted Sound Level	dBA is the sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the 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.
Community Noise Equivalent Level	CNEL is the A-weighted equivalent continuous sound exposure (CNEL) level for a 24-hour period with a ten dB adjustment added to sound levels occurring during nighttime hours (10 pm to 7 am) and a five dB adjustment added to the sound levels occurring during the evening hours (7 pm to 10 pm).
Decibel	dB is the unit for measuring sound pressure level, equal to 10 times the logarithm to the base 10 of the ratio of the measured sound pressure squared to a reference pressure, which is 20 micro-Pascal.

Equivalent Sound Level	L_{eq} is the sound level corresponding to a steady state sound level and containing the same total energy as a time varying signal over a given sample period. L_{eq} is designed to average all of the loud and quiet sound levels occurring over a specific time period.

ATTACHMENT 2

NOISE MODELING INPUT / OUTPUT

Dudek 18 April 2014
M Greene TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Proj Goleta Cal Run

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	m			m	m	m		km/h	%		
Los Carneros Road	20.0	point7	7	11,237,697.0	3,813,909.0	7.60				Average	
		point8	8	11,237,759.0	3,813,961.8	10.70				Average	
		point9	9	11,237,783.0	3,813,989.8	11.00				Average	
		point10	10	11,237,808.0	3,814,029.2	12.50				Average	
		point11	11	11,237,830.0	3,814,079.5	14.00				Average	
		point12	12	11,237,846.0	3,814,131.0	16.00				Average	
		point13	13	11,237,848.0	3,814,231.0	18.50				Average	
		point14	14	11,237,852.0	3,814,289.5	21.30				Average	
		point15	15	11,237,854.0	3,814,330.0	21.50					
US 101 SB Onramp	12.0	point20	20	11,237,863.0	3,814,329.0	21.50				Average	
		point21	21	11,237,917.0	3,814,334.8	19.00				Average	
		point22	22	11,237,998.0	3,814,343.0	15.80				Average	
		point23	23	11,238,188.0	3,814,363.8	12.20				Average	
		point24	24	11,238,395.0	3,814,383.0	10.40					
US 101 SB Offramp	12.0	point26	26	11,237,577.0	3,814,298.0	12.20				Average	
		point27	27	11,237,683.0	3,814,309.2	14.30				Average	
		point28	28	11,237,761.0	3,814,317.5	18.00				Average	
		point29	29	11,237,846.0	3,814,327.8	21.50					
US 101 SB	16.0	point30	30	11,237,580.0	3,814,320.0	12.80				Average	
		point31	31	11,237,676.0	3,814,338.5	12.50				Average	
		point32	32	11,237,752.0	3,814,353.2	12.20				Average	
		point33	33	11,237,789.0	3,814,359.5	12.20				Average	
		point34	34	11,237,847.0	3,814,365.8	12.50					
US 101 SB-2	16.0	point36	36	11,237,866.0	3,814,369.0	12.50				Average	
		point37	37	11,237,907.0	3,814,372.2	11.30				Average	

		point38	38	11,237,997.0	3,814,376.5	11.00				Average	
		point39	39	11,238,184.0	3,814,379.8	11.00				Average	
		point40	40	11,238,395.0	3,814,392.5	10.40					
US 101 NB	16.0	point44	44	11,238,394.0	3,814,413.5	9.10				Average	
		point45	45	11,238,182.0	3,814,403.5	9.80				Average	
		point46	46	11,237,996.0	3,814,396.8	11.30				Average	
		point47	47	11,237,902.0	3,814,389.0	10.70				Average	
		point48	48	11,237,866.0	3,814,386.8	12.50					
US 101 NB-2	16.0	point49	49	11,237,848.0	3,814,384.0	12.50				Average	
		point50	50	11,237,787.0	3,814,375.8	12.20				Average	
		point51	51	11,237,749.0	3,814,370.0	12.20				Average	
		point52	52	11,237,674.0	3,814,356.5	13.10				Average	
		point53	53	11,237,579.0	3,814,337.2	12.50					
Los Carneros Road-2	20.0	point55	55	11,237,854.0	3,814,330.0	21.50				Average	
		point16	16	11,237,857.0	3,814,385.2	18.30				Average	
		point17	17	11,237,861.0	3,814,453.2	16.50					

Dudek **18 April 2014**
M Greene **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Proj Goleta Cal Run

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	km/h	veh/hr	km/h	veh/hr	km/h	veh/hr	km/h	veh/hr	km/h
Los Carneros Road	point7	7	0	0	0	0	0	0	0	0	0	0
	point8	8	0	0	0	0	0	0	0	0	0	0
	point9	9	0	0	0	0	0	0	0	0	0	0
	point10	10	0	0	0	0	0	0	0	0	0	0
	point11	11	0	0	0	0	0	0	0	0	0	0
	point12	12	0	0	0	0	0	0	0	0	0	0
	point13	13	0	0	0	0	0	0	0	0	0	0
	point14	14	0	0	0	0	0	0	0	0	0	0
	point15	15										
US 101 SB Onramp	point20	20	0	0	0	0	0	0	0	0	0	0
	point21	21	0	0	0	0	0	0	0	0	0	0
	point22	22	0	0	0	0	0	0	0	0	0	0
	point23	23	0	0	0	0	0	0	0	0	0	0
	point24	24										
US 101 SB Offramp	point26	26	0	0	0	0	0	0	0	0	0	0
	point27	27	0	0	0	0	0	0	0	0	0	0
	point28	28	0	0	0	0	0	0	0	0	0	0
	point29	29										
US 101 SB	point30	30	2300	105	25	105	0	0	30	105	0	0
	point31	31	2300	105	25	105	0	0	30	105	0	0
	point32	32	2300	105	25	105	0	0	30	105	0	0
	point33	33	2300	105	25	105	0	0	30	105	0	0
	point34	34										

US 101 SB-2	point36	36	2300	105	25	105	0	0	30	105	0	0
	point37	37	2300	105	25	105	0	0	30	105	0	0
	point38	38	2300	105	25	105	0	0	30	105	0	0
	point39	39	2300	105	25	105	0	0	30	105	0	0
	point40	40										
US 101 NB	point44	44	2300	105	25	105	0	0	30	105	0	0
	point45	45	2300	105	25	105	0	0	30	105	0	0
	point46	46	2300	105	25	105	0	0	30	105	0	0
	point47	47	2300	105	25	105	0	0	30	105	0	0
	point48	48										
US 101 NB-2	point49	49	2300	105	25	105	0	0	30	105	0	0
	point50	50	2300	105	25	105	0	0	30	105	0	0
	point51	51	2300	105	25	105	0	0	30	105	0	0
	point52	52	2300	105	25	105	0	0	30	105	0	0
	point53	53										
Los Carneros Road-2	point55	55	0	0	0	0	0	0	0	0	0	0
	point16	16	0	0	0	0	0	0	0	0	0	0
	point17	17										

Dudek			**18 April 2014**	
M Greene			**TNM 2.5**	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	**<Project Name?>**			
RUN:	**North Willow Springs Proj Goleta Cal Run**			
Terrain Line	**Points**			
Name	**No.**	**Coordinates (ground)**		
		X	**Y**	**Z**
		m	m	m
UPRR - 2	2	11,237,861.0	3,814,287.5	12.50
	3	11,238,395.0	3,814,333.0	8.50
UPRR	4	11,237,570.0	3,814,262.8	12.50
	5	11,237,839.0	3,814,285.0	12.50
Terrain Line5	6	11,237,881.0	3,814,269.2	11.90
	8	11,237,880.0	3,814,249.2	13.10
	9	11,237,880.0	3,814,213.2	13.10
	10	11,237,880.0	3,814,200.2	13.40
	11	11,237,878.0	3,814,185.0	13.70
	12	11,237,876.0	3,814,157.5	12.80
	13	11,237,869.0	3,814,116.0	13.40
	14	11,237,863.0	3,814,091.8	14.90
	15	11,237,860.0	3,814,081.0	14.00
	16	11,237,855.0	3,814,065.5	13.70
	17	11,237,846.0	3,814,042.5	12.30
	18	11,237,832.0	3,814,014.5	11.90
	7	11,237,818.0	3,813,990.8	10.80

Dudek 18 April 2014
M Greene TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Proj Goleta Cal Run

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht Perturbs			On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		m	m	$/sq m	$/cu m	m	m:m	$/m			m	m	m	m	m				
Barrier4	W	0.00	30.48	0.00				0.00	point1	1	11,237,881.0	3,814,214.2	13.10	1.80	0.00	0	0		
									point2	2	11,237,881.0	3,814,251.2	13.10	1.80	0.00	0	0		
									point3	3	11,237,882.0	3,814,269.8	11.90	1.80	0.00	0	0		
									point4	4	11,237,896.0	3,814,270.8	11.60	1.80	0.00	0	0		
									point5	5	11,237,911.0	3,814,272.5	11.00	1.80	0.00	0	0		
									point6	6	11,237,946.0	3,814,275.5	11.00	1.80	0.00	0	0		
									point7	7	11,237,963.0	3,814,277.2	10.70	1.80	0.00	0	0		
									point8	8	11,238,006.0	3,814,281.2	10.50	1.80	0.00	0	0		
									point9	9	11,238,074.0	3,814,287.5	10.10	1.80	0.00	0	0		
									point10	10	11,238,128.0	3,814,292.5	9.15	1.80	0.00	0	0		
									point11	11	11,238,170.0	3,814,296.5	8.54	1.80	0.00	0	0		
									point12	12	11,238,187.0	3,814,297.8	9.15	1.80					
Barrier5	W	0.00	30.48	0.00				0.00	point13	13	11,238,189.0	3,814,297.5	9.15	3.65	0.00	0	0		
									point14	14	11,238,194.0	3,814,297.0	9.21	3.65	0.00	0	0		
									point15	15	11,238,193.0	3,814,235.8	8.41	3.65	0.00	0	0		
									point16	16	11,238,221.0	3,814,235.0	8.50	3.65	0.00	0	0		
									point17	17	11,238,221.0	3,814,227.0	8.34	3.65	0.00	0	0		
									point18	18	11,238,188.0	3,814,229.8	8.27	3.65	0.00	0	0		
									point19	19	11,238,189.0	3,814,297.5	9.15	3.65					
Barrier6	W	0.00	30.48	0.00				0.00	point20	20	11,238,198.0	3,814,176.8	7.46	3.65	0.00	0	0		
									point21	21	11,238,200.0	3,814,224.0	8.31	3.65	0.00	0	0		
									point22	22	11,238,237.0	3,814,223.2	8.24	3.65	0.00	0	0		
									point23	23	11,238,237.0	3,814,196.0	7.69	3.65	0.00	0	0		
									point24	24	11,238,223.0	3,814,196.2	7.71	3.65	0.00	0	0		
									point25	25	11,238,223.0	3,814,175.8	7.29	3.65					
Barrier7	W	0.00	30.48	0.00				0.00	point26	26	11,237,904.0	3,814,216.0	11.57	6.70	0.00	0	0		
									point28	28	11,237,900.0	3,814,243.0	11.50	6.70	0.00	0	0		
									point29	29	11,237,905.0	3,814,243.5	11.46	6.70	0.00	0	0		
									point30	30	11,237,905.0	3,814,244.8	11.46	6.70	0.00	0	0		
									point31	31	11,237,909.0	3,814,245.0	11.42	6.70	0.00	0	0		
									point32	32	11,237,910.0	3,814,239.8	11.40	6.70	0.00	0	0		
									point33	33	11,237,913.0	3,814,240.0	11.38	6.70	0.00	0	0		
									point34	34	11,237,913.0	3,814,242.2	11.39	6.70	0.00	0	0		
									point35	35	11,237,924.0	3,814,243.0	11.27	6.70	0.00	0	0		
									point36	36	11,237,924.0	3,814,241.0	11.26	6.70	0.00	0	0		

									point37	37	11,237,928.0	3,814,241.5	11.22	6.70	0.00	0	0		
									point38	38	11,237,927.0	3,814,243.5	11.23	6.70	0.00	0	0		
									point39	39	11,237,939.0	3,814,244.8	11.11	6.70	0.00	0	0		
									point40	40	11,237,939.0	3,814,242.5	11.10	6.70	0.00	0	0		
									point41	41	11,237,941.0	3,814,242.8	11.08	6.70	0.00	0	0		
									point42	42	11,237,941.0	3,814,247.8	11.10	6.70	0.00	0	0		
									point43	43	11,237,946.0	3,814,248.2	11.05	6.70	0.00	0	0		
									point44	44	11,237,946.0	3,814,246.8	11.05	6.70	0.00	0	0		
									point45	45	11,237,949.0	3,814,247.5	11.01	6.70	0.00	0	0		
									point46	46	11,237,950.0	3,814,219.8	11.00	6.70	0.00	0	0		
									point47	47	11,237,947.0	3,814,219.2	11.00	6.70	0.00	0	0		
									point48	48	11,237,947.0	3,814,218.2	11.00	6.70	0.00	0	0		
									point49	49	11,237,943.0	3,814,218.2	11.00	6.70	0.00	0	0		
									point50	50	11,237,943.0	3,814,223.0	11.01	6.70	0.00	0	0		
									point51	51	11,237,941.0	3,814,222.8	11.03	6.70	0.00	0	0		
									point52	52	11,237,941.0	3,814,220.5	11.03	6.70	0.00	0	0		
									point53	53	11,237,914.0	3,814,218.2	11.40	6.70	0.00	0	0		
									point54	54	11,237,914.0	3,814,220.5	11.37	6.70	0.00	0	0		
									point55	55	11,237,911.0	3,814,220.2	11.41	6.70	0.00	0	0		
									point56	56	11,237,913.0	3,814,215.5	11.47	6.70	0.00	0	0		
									point57	57	11,237,908.0	3,814,214.8	11.53	6.70	0.00	0	0		
									point58	58	11,237,908.0	3,814,216.0	11.52	6.70	0.00	0	0		
									point27	27	11,237,904.0	3,814,215.5	11.57	6.70					
Barrier8	W	0.00	30.48	0.00				0.00	point59	59	11,237,960.0	3,814,248.5	10.94	6.70	0.00	0	0		
									point61	61	11,237,964.0	3,814,249.0	10.94	6.70	0.00	0	0		
									point62	62	11,237,964.0	3,814,250.2	10.92	6.70	0.00	0	0		
									point63	63	11,237,967.0	3,814,250.5	10.92	6.70	0.00	0	0		
									point64	64	11,237,969.0	3,814,245.2	10.97	6.70	0.00	0	0		
									point65	65	11,237,971.0	3,814,245.5	10.96	6.70	0.00	0	0		
									point66	66	11,237,970.0	3,814,247.8	10.96	6.70	0.00	0	0		
									point67	67	11,237,982.0	3,814,248.5	10.93	6.70	0.00	0	0		
									point68	68	11,237,982.0	3,814,246.2	10.93	6.70	0.00	0	0		
									point69	69	11,237,986.0	3,814,246.8	10.93	6.70	0.00	0	0		
									point70	70	11,237,986.0	3,814,249.0	10.91	6.70	0.00	0	0		
									point71	71	11,237,998.0	3,814,250.2	10.87	6.70	0.00	0	0		
									point72	72	11,237,998.0	3,814,247.8	10.91	6.70	0.00	0	0		
									point73	73	11,238,000.0	3,814,248.0	10.88	6.70	0.00	0	0		
									point74	74	11,238,000.0	3,814,252.8	10.80	6.70	0.00	0	0		
									point75	75	11,238,004.0	3,814,253.8	10.75	6.70	0.00	0	0		
									point76	76	11,238,004.0	3,814,252.5	10.75	6.70	0.00	0	0		
									point77	77	11,238,008.0	3,814,252.8	10.71	6.70	0.00	0	0		
									point78	78	11,238,010.0	3,814,225.2	11.27	6.70	0.00	0	0		
									point79	79	11,238,006.0	3,814,225.2	11.24	6.70	0.00	0	0		
									point80	80	11,238,006.0	3,814,223.5	11.26	6.70	0.00	0	0		
									point81	81	11,238,002.0	3,814,223.5	11.26	6.70	0.00	0	0		
									point82	82	11,238,002.0	3,814,228.2	11.21	6.70	0.00	0	0		
									point83	83	11,238,000.0	3,814,228.0	11.20	6.70	0.00	0	0		
									point84	84	11,238,000.0	3,814,226.0	11.22	6.70	0.00	0	0		
									point85	85	11,237,974.0	3,814,223.5	11.03	6.70	0.00	0	0		

									point86	86	11,237,972.0	3,814,226.0	11.01	6.70	0.00	0	0		
									point87	87	11,237,970.0	3,814,225.8	10.99	6.70	0.00	0	0		
									point88	88	11,237,971.0	3,814,220.5	11.05	6.70	0.00	0	0		
									point89	89	11,237,967.0	3,814,220.0	11.02	6.70	0.00	0	0		
									point90	90	11,237,967.0	3,814,221.5	11.00	6.70	0.00	0	0		
									point276	276	11,237,964.0	3,814,221.5	11.00	6.70	0.00	0	0		
									point277	277	11,237,961.0	3,814,247.5	11.00	6.70	0.00	0	0		
									point60	60	11,237,960.0	3,814,247.5	11.00	6.70					
Barrier9	W	0.00	30.48	0.00				0.00	point91	91	11,238,035.0	3,814,236.0	10.45	9.75	0.00	0	0		
									point94	94	11,238,035.0	3,814,241.2	10.45	9.75	0.00	0	0		
									point95	95	11,238,035.0	3,814,244.8	10.46	9.75	0.00	0	0		
									point96	96	11,238,037.0	3,814,245.0	10.42	9.75	0.00	0	0		
									point97	97	11,238,037.0	3,814,247.5	10.42	9.75	0.00	0	0		
									point98	98	11,238,035.0	3,814,247.5	10.46	9.75	0.00	0	0		
									point99	99	11,238,035.0	3,814,248.5	10.45	9.75	0.00	0	0		
									point100	100	11,238,037.0	3,814,249.0	10.42	9.75	0.00	0	0		
									point101	101	11,238,036.0	3,814,254.0	10.43	9.75	0.00	0	0		
									point102	102	11,238,038.0	3,814,254.0	10.40	9.75	0.00	0	0		
									point103	103	11,238,037.0	3,814,256.8	10.40	9.75	0.00	0	0		
									point104	104	11,238,045.0	3,814,257.5	10.23	9.75	0.00	0	0		
									point105	105	11,238,047.0	3,814,255.2	10.23	9.75	0.00	0	0		
									point106	106	11,238,049.0	3,814,255.5	10.18	9.75	0.00	0	0		
									point107	107	11,238,049.0	3,814,257.8	10.18	9.75	0.00	0	0		
									point108	108	11,238,060.0	3,814,259.0	9.97	9.75	0.00	0	0		
									point109	109	11,238,061.0	3,814,256.5	9.96	9.75	0.00	0	0		
									point110	110	11,238,066.0	3,814,257.2	9.87	9.75	0.00	0	0		
									point111	111	11,238,066.0	3,814,257.8	9.88	9.75	0.00	0	0		
									point112	112	11,238,069.0	3,814,258.0	9.78	9.75	0.00	0	0		
									point113	113	11,238,069.0	3,814,259.0	9.79	9.75	0.00	0	0		
									point114	114	11,238,074.0	3,814,259.0	9.71	9.75	0.00	0	0		
									point115	115	11,238,072.0	3,814,260.2	9.72	9.75	0.00	0	0		
									point116	116	11,238,082.0	3,814,261.0	9.43	9.75	0.00	0	0		
									point117	117	11,238,082.0	3,814,260.0	9.42	9.75	0.00	0	0		
									point118	118	11,238,085.0	3,814,260.5	9.32	9.75	0.00	0	0		
									point119	119	11,238,085.0	3,814,256.2	9.30	9.75	0.00	0	0		
									point120	120	11,238,091.0	3,814,257.2	9.13	9.75	0.00	0	0		
									point121	121	11,238,091.0	3,814,262.0	9.16	9.75	0.00	0	0		
									point122	122	11,238,097.0	3,814,262.8	8.94	9.75	0.00	0	0		
									point123	123	11,238,097.0	3,814,259.0	8.93	9.75	0.00	0	0		
									point124	124	11,238,100.0	3,814,259.5	8.84	9.75	0.00	0	0		
									point125	125	11,238,102.0	3,814,253.8	8.84	9.75	0.00	0	0		
									point126	126	11,238,100.0	3,814,253.5	8.84	9.75	0.00	0	0		
									point127	127	11,238,100.0	3,814,250.5	8.84	9.75	0.00	0	0		
									point128	128	11,238,099.0	3,814,250.5	8.84	9.75	0.00	0	0		
									point129	129	11,238,099.0	3,814,247.8	8.84	9.75	0.00	0	0		
									point130	130	11,238,102.0	3,814,248.0	8.84	9.75	0.00	0	0		
									point131	131	11,238,102.0	3,814,246.2	8.84	9.75	0.00	0	0		
									point132	132	11,238,099.0	3,814,245.8	8.84	9.75	0.00	0	0		
									point133	133	11,238,099.0	3,814,241.0	8.84	9.75	0.00	0	0		

									point134	134	11,238,098.0	3,814,241.0	8.84	9.75	0.00	0	0		
									point135	135	11,238,098.0	3,814,238.8	8.84	9.75	0.00	0	0		
									point136	136	11,238,091.0	3,814,238.0	9.05	9.75	0.00	0	0		
									point137	137	11,238,091.0	3,814,238.8	9.05	9.75	0.00	0	0		
									point138	138	11,238,087.0	3,814,238.5	9.13	9.75	0.00	0	0		
									point139	139	11,238,087.0	3,814,237.8	9.12	9.75	0.00	0	0		
									point140	140	11,238,078.0	3,814,236.5	9.35	9.75	0.00	0	0		
									point141	141	11,238,078.0	3,814,237.8	9.36	9.75	0.00	0	0		
									point142	142	11,238,075.0	3,814,237.0	9.45	9.75	0.00	0	0		
									point143	143	11,238,075.0	3,814,236.0	9.44	9.75	0.00	0	0		
									point144	144	11,238,070.0	3,814,235.8	9.56	9.75	0.00	0	0		
									point145	145	11,238,070.0	3,814,236.8	9.57	9.75	0.00	0	0		
									point146	146	11,238,064.0	3,814,236.0	9.73	9.75	0.00	0	0		
									point147	147	11,238,064.0	3,814,235.2	9.72	9.75	0.00	0	0		
									point148	148	11,238,054.0	3,814,234.2	9.95	9.75	0.00	0	0		
									point149	149	11,238,054.0	3,814,235.5	9.96	9.75	0.00	0	0		
									point150	150	11,238,045.0	3,814,234.5	10.19	9.75	0.00	0	0		
									point151	151	11,238,045.0	3,814,233.2	10.18	9.75	0.00	0	0		
									point152	152	11,238,038.0	3,814,233.0	10.36	9.75	0.00	0	0		
									point275	275	11,238,038.0	3,814,236.0	10.37	9.75					
Barrier10	W	0.00	30.48	0.00				0.00	point153	153	11,238,106.0	3,814,267.0	8.86	9.75	0.00	0	0		
									point155	155	11,238,110.0	3,814,267.0	8.88	9.75	0.00	0	0		
									point156	156	11,238,109.0	3,814,269.8	8.89	9.75	0.00	0	0		
									point157	157	11,238,116.0	3,814,270.8	8.90	9.75	0.00	0	0		
									point158	158	11,238,117.0	3,814,265.2	8.88	9.75	0.00	0	0		
									point159	159	11,238,122.0	3,814,266.0	8.84	9.75	0.00	0	0		
									point160	160	11,238,122.0	3,814,270.2	8.85	9.75	0.00	0	0		
									point161	161	11,238,125.0	3,814,270.2	8.83	9.75	0.00	0	0		
									point162	162	11,238,125.0	3,814,271.2	8.83	9.75	0.00	0	0		
									point163	163	11,238,134.0	3,814,272.0	8.76	9.75	0.00	0	0		
									point164	164	11,238,134.0	3,814,270.8	8.75	9.75	0.00	0	0		
									point165	165	11,238,138.0	3,814,271.2	8.73	9.75	0.00	0	0		
									point166	166	11,238,137.0	3,814,272.5	8.73	9.75	0.00	0	0		
									point167	167	11,238,142.0	3,814,272.8	8.69	9.75	0.00	0	0		
									point168	168	11,238,142.0	3,814,271.8	8.69	9.75	0.00	0	0		
									point169	169	11,238,148.0	3,814,272.5	8.64	9.75	0.00	0	0		
									point170	170	11,238,148.0	3,814,273.5	8.64	9.75	0.00	0	0		
									point171	171	11,238,153.0	3,814,274.0	8.61	9.75	0.00	0	0		
									point172	172	11,238,153.0	3,814,273.0	8.60	9.75	0.00	0	0		
									point173	173	11,238,161.0	3,814,274.0	8.58	9.75	0.00	0	0		
									point174	174	11,238,161.0	3,814,270.8	8.61	9.75	0.00	0	0		
									point175	175	11,238,163.0	3,814,270.8	8.61	9.75	0.00	0	0		
									point176	176	11,238,163.0	3,814,266.2	8.66	9.75	0.00	0	0		
									point177	177	11,238,165.0	3,814,266.5	8.66	9.75	0.00	0	0		
									point178	178	11,238,165.0	3,814,264.8	8.68	9.75	0.00	0	0		
									point179	179	11,238,163.0	3,814,264.8	8.68	9.75	0.00	0	0		
									point180	180	11,238,163.0	3,814,262.2	8.70	9.75	0.00	0	0		
									point181	181	11,238,166.0	3,814,262.8	8.71	9.75	0.00	0	0		
									point182	182	11,238,166.0	3,814,261.0	8.72	9.75	0.00	0	0		

									point183	183	11,238,164.0	3,814,260.8	8.72	9.75	0.00	0	0		
									point184	184	11,238,164.0	3,814,258.2	8.75	9.75	0.00	0	0		
									point185	185	11,238,167.0	3,814,258.2	8.75	9.75	0.00	0	0		
									point186	186	11,238,167.0	3,814,247.5	8.82	9.75	0.00	0	0		
									point187	187	11,238,167.0	3,814,245.8	8.81	9.75	0.00	0	0		
									point188	188	11,238,164.0	3,814,245.8	8.81	9.75	0.00	0	0		
									point189	189	11,238,164.0	3,814,242.0	8.78	9.75	0.00	0	0		
									point190	190	11,238,165.0	3,814,242.0	8.78	9.75	0.00	0	0		
									point191	191	11,238,165.0	3,814,238.5	8.76	9.75	0.00	0	0		
									point192	192	11,238,166.0	3,814,238.8	8.76	9.75	0.00	0	0		
									point193	193	11,238,166.0	3,814,237.8	8.75	9.75	0.00	0	0		
									point194	194	11,238,164.0	3,814,237.2	8.75	9.75	0.00	0	0		
									point195	195	11,238,164.0	3,814,234.2	8.72	9.75	0.00	0	0		
									point196	196	11,238,166.0	3,814,234.5	8.72	9.75	0.00	0	0		
									point197	197	11,238,167.0	3,814,233.0	8.71	9.75	0.00	0	0		
									point198	198	11,238,163.0	3,814,232.8	8.71	9.75	0.00	0	0		
									point199	199	11,238,163.0	3,814,229.8	8.69	9.75	0.00	0	0		
									point200	200	11,238,165.0	3,814,229.8	8.69	9.75	0.00	0	0		
									point201	201	11,238,165.0	3,814,227.2	8.67	9.75	0.00	0	0		
									point202	202	11,238,167.0	3,814,227.5	8.67	9.75	0.00	0	0		
									point203	203	11,238,167.0	3,814,220.8	8.66	9.75	0.00	0	0		
									point214	214	11,238,164.0	3,814,220.5	8.62	9.75	0.00	0	0		
									point215	215	11,238,164.0	3,814,217.2	8.59	9.75	0.00	0	0		
									point216	216	11,238,156.0	3,814,216.5	8.60	9.75	0.00	0	0		
									point217	217	11,238,156.0	3,814,215.5	8.59	9.75	0.00	0	0		
									point218	218	11,238,152.0	3,814,215.0	8.62	9.75	0.00	0	0		
									point219	219	11,238,152.0	3,814,216.2	8.62	9.75	0.00	0	0		
									point220	220	11,238,145.0	3,814,215.8	8.65	9.75	0.00	0	0		
									point221	221	11,238,145.0	3,814,214.5	8.65	9.75	0.00	0	0		
									point222	222	11,238,136.0	3,814,213.8	8.71	9.75	0.00	0	0		
									point223	223	11,238,136.0	3,814,214.5	8.71	9.75	0.00	0	0		
									point224	224	11,238,133.0	3,814,214.5	8.73	9.75	0.00	0	0		
									point225	225	11,238,132.0	3,814,218.5	8.73	9.75	0.00	0	0		
									point226	226	11,238,127.0	3,814,218.2	8.77	9.75	0.00	0	0		
									point227	227	11,238,127.0	3,814,213.0	8.78	9.75	0.00	0	0		
									point228	228	11,238,121.0	3,814,212.8	8.82	9.75	0.00	0	0		
									point229	229	11,238,121.0	3,814,215.5	8.81	9.75	0.00	0	0		
									point230	230	11,238,117.0	3,814,215.0	8.84	9.75	0.00	0	0		
									point231	231	11,238,116.0	3,814,220.8	8.83	9.75	0.00	0	0		
									point232	232	11,238,117.0	3,814,220.8	8.82	9.75	0.00	0	0		
									point233	233	11,238,117.0	3,814,224.0	8.82	9.75	0.00	0	0		
									point234	234	11,238,119.0	3,814,224.0	8.81	9.75	0.00	0	0		
									point235	235	11,238,117.0	3,814,226.2	8.81	9.75	0.00	0	0		
									point236	236	11,238,116.0	3,814,226.2	8.82	9.75	0.00	0	0		
									point237	237	11,238,116.0	3,814,233.0	8.82	9.75	0.00	0	0		
									point238	238	11,238,119.0	3,814,233.2	8.80	9.75	0.00	0	0		
									point239	239	11,238,119.0	3,814,236.0	8.81	9.75	0.00	0	0		
									point240	240	11,238,127.0	3,814,237.0	8.80	9.75	0.00	0	0		
									point241	241	11,238,127.0	3,814,235.8	8.79	9.75	0.00	0	0		

									point242	242	11,238,130.0	3,814,236.0	8.79	9.75	0.00	0	0		
									point243	243	11,238,130.0	3,814,237.2	8.80	9.75	0.00	0	0		
									point244	244	11,238,134.0	3,814,237.8	8.79	9.75	0.00	0	0		
									point245	245	11,238,134.0	3,814,236.8	8.79	9.75	0.00	0	0		
									point246	246	11,238,138.0	3,814,237.0	8.78	9.75	0.00	0	0		
									point247	247	11,238,138.0	3,814,238.0	8.79	9.75	0.00	0	0		
									point248	248	11,238,143.0	3,814,238.2	8.79	9.75	0.00	0	0		
									point249	249	11,238,143.0	3,814,236.8	8.77	9.75	0.00	0	0		
									point250	250	11,238,145.0	3,814,237.0	8.77	9.75	0.00	0	0		
									point251	251	11,238,145.0	3,814,238.5	8.78	9.75	0.00	0	0		
									point252	252	11,238,152.0	3,814,238.5	8.78	9.75	0.00	0	0		
									point253	253	11,238,152.0	3,814,235.0	8.75	9.75	0.00	0	0		
									point254	254	11,238,154.0	3,814,235.2	8.75	9.75	0.00	0	0		
									point255	255	11,238,154.0	3,814,242.0	8.80	9.75	0.00	0	0		
									point256	256	11,238,152.0	3,814,242.0	8.80	9.75	0.00	0	0		
									point259	259	11,238,152.0	3,814,247.5	8.84	9.75	0.00	0	0		
									point260	260	11,238,155.0	3,814,247.8	8.84	9.75	0.00	0	0		
									point261	261	11,238,154.0	3,814,254.0	8.77	9.75	0.00	0	0		
									point262	262	11,238,152.0	3,814,253.8	8.77	9.75	0.00	0	0		
									point263	263	11,238,152.0	3,814,250.2	8.81	9.75	0.00	0	0		
									point264	264	11,238,145.0	3,814,249.5	8.80	9.75	0.00	0	0		
									point265	265	11,238,145.0	3,814,250.8	8.79	9.75	0.00	0	0		
									point266	266	11,238,143.0	3,814,250.8	8.78	9.75	0.00	0	0		
									point267	267	11,238,143.0	3,814,248.5	8.80	9.75	0.00	0	0		
									point268	268	11,238,138.0	3,814,248.5	8.80	9.75	0.00	0	0		
									point269	269	11,238,138.0	3,814,249.5	8.79	9.75	0.00	0	0		
									point270	270	11,238,132.0	3,814,248.5	8.78	9.75	0.00	0	0		
									point271	271	11,238,132.0	3,814,247.8	8.79	9.75	0.00	0	0		
									point272	272	11,238,124.0	3,814,247.0	8.78	9.75	0.00	0	0		
									point204	204	11,238,124.0	3,814,247.8	8.78	9.75	0.00	0	0		
									point205	205	11,238,120.0	3,814,247.8	8.81	9.75	0.00	0	0		
									point206	206	11,238,120.0	3,814,246.5	8.80	9.75	0.00	0	0		
									point207	207	11,238,113.0	3,814,245.8	8.85	9.75	0.00	0	0		
									point208	208	11,238,113.0	3,814,248.5	8.86	9.75	0.00	0	0		
									point209	209	11,238,110.0	3,814,248.5	8.85	9.75	0.00	0	0		
									point210	210	11,238,110.0	3,814,253.5	8.86	9.75	0.00	0	0		
									point211	211	11,238,106.0	3,814,253.5	8.85	9.75	0.00	0	0		
									point212	212	11,238,106.0	3,814,255.0	8.85	9.75	0.00	0	0		
									point213	213	11,238,110.0	3,814,255.2	8.86	9.75	0.00	0	0		
									point273	273	11,238,109.0	3,814,257.5	8.86	9.75	0.00	0	0		
									point274	274	11,238,109.0	3,814,262.0	8.87	9.75	0.00	0	0		
									point154	154	11,238,109.0	3,814,266.5	8.87	9.75					
Barrier11	W	0.00	30.48	0.00				0.00	point278	278	11,238,097.0	3,814,231.8	8.84	4.60	0.00	0	0		
									point280	280	11,238,106.0	3,814,232.5	8.84	4.60	0.00	0	0		
									point281	281	11,238,106.0	3,814,224.8	8.84	4.60	0.00	0	0		
									point282	282	11,238,110.0	3,814,225.2	8.84	4.60	0.00	0	0		
									point283	283	11,238,111.0	3,814,216.5	8.84	4.60	0.00	0	0		
									point284	284	11,238,108.0	3,814,216.5	8.84	4.60	0.00	0	0		
									point285	285	11,238,108.0	3,814,210.5	8.84	4.60	0.00	0	0		

									point286	286	11,238,104.0	3,814,210.0	8.84	4.60	0.00	0	0		
									point287	287	11,238,104.0	3,814,211.8	8.84	4.60	0.00	0	0		
									point288	288	11,238,100.0	3,814,211.0	8.84	4.60	0.00	0	0		
									point289	289	11,238,100.0	3,814,213.2	8.84	4.60	0.00	0	0		
									point290	290	11,238,097.0	3,814,213.0	8.84	4.60	0.00	0	0		
									point291	291	11,238,097.0	3,814,210.0	8.84	4.60	0.00	0	0		
									point292	292	11,238,089.0	3,814,209.0	8.87	4.60	0.00	0	0		
									point293	293	11,238,088.0	3,814,214.8	8.86	4.60	0.00	0	0		
									point294	294	11,238,080.0	3,814,214.2	9.07	4.60	0.00	0	0		
									point295	295	11,238,080.0	3,814,222.0	8.98	4.60	0.00	0	0		
									point296	296	11,238,097.0	3,814,222.8	8.91	4.60	0.00	0	0		
									point279	279	11,238,097.0	3,814,231.5	8.84	4.60					
Barrier12	W	0.00	30.48	0.00				0.00	point297	297	11,237,907.0	3,814,205.8	11.64	6.70	0.00	0	0		
									point299	299	11,237,914.0	3,814,205.2	11.59	6.70	0.00	0	0		
									point300	300	11,237,914.0	3,814,204.5	11.58	6.70	0.00	0	0		
									point301	301	11,237,924.0	3,814,204.0	11.53	6.70	0.00	0	0		
									point303	303	11,237,932.0	3,814,203.8	11.50	6.70	0.00	0	0		
									point304	304	11,237,932.0	3,814,199.0	11.50	6.70	0.00	0	0		
									point305	305	11,237,933.0	3,814,199.0	11.50	6.70	0.00	0	0		
									point306	306	11,237,933.0	3,814,195.0	11.50	6.70	0.00	0	0		
									point307	307	11,237,928.0	3,814,195.2	11.50	6.70	0.00	0	0		
									point308	308	11,237,928.0	3,814,193.2	11.50	6.70	0.00	0	0		
									point309	309	11,237,930.0	3,814,193.2	11.50	6.70	0.00	0	0		
									point310	310	11,237,928.0	3,814,180.8	11.50	6.70	0.00	0	0		
									point311	311	11,237,927.0	3,814,181.0	11.50	6.70	0.00	0	0		
									point312	312	11,237,927.0	3,814,176.8	11.50	6.70	0.00	0	0		
									point313	313	11,237,928.0	3,814,176.2	11.50	6.70	0.00	0	0		
									point314	314	11,237,928.0	3,814,163.8	11.50	6.70	0.00	0	0		
									point315	315	11,237,926.0	3,814,163.8	11.50	6.70	0.00	0	0		
									point316	316	11,237,926.0	3,814,160.2	11.50	6.70	0.00	0	0		
									point317	317	11,237,928.0	3,814,160.0	11.50	6.70	0.00	0	0		
									point318	318	11,237,927.0	3,814,148.0	11.50	6.70	0.00	0	0		
									point319	319	11,237,925.0	3,814,148.2	11.50	6.70	0.00	0	0		
									point320	320	11,237,925.0	3,814,146.0	11.50	6.70	0.00	0	0		
									point321	321	11,237,930.0	3,814,146.0	11.50	6.70	0.00	0	0		
									point322	322	11,237,930.0	3,814,141.5	11.50	6.70	0.00	0	0		
									point323	323	11,237,928.0	3,814,141.5	11.50	6.70	0.00	0	0		
									point324	324	11,237,928.0	3,814,137.2	11.50	6.70	0.00	0	0		
									point325	325	11,237,922.0	3,814,137.8	11.51	6.70	0.00	0	0		
									point326	326	11,237,922.0	3,814,137.0	11.52	6.70	0.00	0	0		
									point327	327	11,237,920.0	3,814,137.0	11.52	6.70	0.00	0	0		
									point328	328	11,237,920.0	3,814,138.0	11.52	6.70	0.00	0	0		
									point329	329	11,237,911.0	3,814,138.5	11.55	6.70	0.00	0	0		
									point330	330	11,237,910.0	3,814,137.8	11.55	6.70	0.00	0	0		
									point331	331	11,237,908.0	3,814,138.0	11.56	6.70	0.00	0	0		
									point332	332	11,237,908.0	3,814,139.0	11.55	6.70	0.00	0	0		
									point333	333	11,237,902.0	3,814,139.0	11.58	6.70	0.00	0	0		
									point334	334	11,237,902.0	3,814,143.2	11.55	6.70	0.00	0	0		
									point335	335	11,237,900.0	3,814,143.2	11.56	6.70	0.00	0	0		

									point336	336	11,237,900.0	3,814,147.5	11.53	6.70	0.00	0	0		
									point337	337	11,237,907.0	3,814,147.0	11.52	6.70	0.00	0	0		
									point338	338	11,237,907.0	3,814,149.2	11.50	6.70	0.00	0	0		
									point339	339	11,237,904.0	3,814,149.5	11.51	6.70	0.00	0	0		
									point340	340	11,237,905.0	3,814,161.8	11.50	6.70	0.00	0	0		
									point341	341	11,237,907.0	3,814,161.5	11.50	6.70	0.00	0	0		
									point342	342	11,237,907.0	3,814,165.5	11.50	6.70	0.00	0	0		
									point343	343	11,237,905.0	3,814,166.0	11.50	6.70	0.00	0	0		
									point344	344	11,237,907.0	3,814,178.0	11.50	6.70	0.00	0	0		
									point345	345	11,237,908.0	3,814,178.0	11.50	6.70	0.00	0	0		
									point346	346	11,237,908.0	3,814,181.8	11.50	6.70	0.00	0	0		
									point347	347	11,237,907.0	3,814,182.5	11.50	6.70	0.00	0	0		
									point348	348	11,237,907.0	3,814,194.2	11.52	6.70	0.00	0	0		
									point349	349	11,237,909.0	3,814,194.2	11.50	6.70	0.00	0	0		
									point350	350	11,237,909.0	3,814,196.5	11.53	6.70	0.00	0	0		
									point351	351	11,237,904.0	3,814,196.8	11.55	6.70	0.00	0	0		
									point352	352	11,237,904.0	3,814,201.0	11.60	6.70	0.00	0	0		
									point298	298	11,237,905.0	3,814,201.0	11.60	6.70					
Barrier13	W	0.00	30.48	0.00				0.00	point353	353	11,238,039.0	3,814,154.0	9.14	9.75	0.00	0	0		
									point355	355	11,238,038.0	3,814,161.2	9.27	9.75	0.00	0	0		
									point356	356	11,238,041.0	3,814,161.2	9.28	9.75	0.00	0	0		
									point357	357	11,238,039.0	3,814,163.8	9.32	9.75	0.00	0	0		
									point359	359	11,238,039.0	3,814,166.2	9.35	9.75	0.00	0	0		
									point360	360	11,238,038.0	3,814,166.2	9.34	9.75	0.00	0	0		
									point361	361	11,238,038.0	3,814,172.0	9.43	9.75	0.00	0	0		
									point362	362	11,238,041.0	3,814,172.5	9.45	9.75	0.00	0	0		
									point363	363	11,238,041.0	3,814,176.0	9.50	9.75	0.00	0	0		
									point364	364	11,238,047.0	3,814,176.2	9.55	9.75	0.00	0	0		
									point365	365	11,238,048.0	3,814,171.5	9.48	9.75	0.00	0	0		
									point366	366	11,238,052.0	3,814,172.0	9.48	9.75	0.00	0	0		
									point367	367	11,238,052.0	3,814,177.0	9.58	9.75	0.00	0	0		
									point368	368	11,238,056.0	3,814,177.5	9.59	9.75	0.00	0	0		
									point369	369	11,238,056.0	3,814,176.2	9.57	9.75	0.00	0	0		
									point370	370	11,238,063.0	3,814,177.0	9.55	9.75	0.00	0	0		
									point371	371	11,238,063.0	3,814,178.0	9.57	9.75	0.00	0	0		
									point372	372	11,238,067.0	3,814,178.5	9.55	9.75	0.00	0	0		
									point373	373	11,238,067.0	3,814,176.0	9.50	9.75	0.00	0	0		
									point374	374	11,238,074.0	3,814,176.2	9.48	9.75	0.00	0	0		
									point375	375	11,238,074.0	3,814,177.5	9.50	9.75	0.00	0	0		
									point376	376	11,238,077.0	3,814,178.0	9.45	9.75	0.00	0	0		
									point377	377	11,238,077.0	3,814,178.5	9.46	9.75	0.00	0	0		
									point378	378	11,238,080.0	3,814,178.8	9.42	9.75	0.00	0	0		
									point379	379	11,238,080.0	3,814,179.8	9.43	9.75	0.00	0	0		
									point380	380	11,238,091.0	3,814,180.8	9.31	9.75	0.00	0	0		
									point381	381	11,238,091.0	3,814,179.5	9.30	9.75	0.00	0	0		
									point382	382	11,238,092.0	3,814,179.8	9.27	9.75	0.00	0	0		
									point383	383	11,238,093.0	3,814,176.0	9.23	9.75	0.00	0	0		
									point384	384	11,238,098.0	3,814,176.2	9.16	9.75	0.00	0	0		
									point385	385	11,238,098.0	3,814,181.0	9.21	9.75	0.00	0	0		

									point386	386	11,238,104.0	3,814,181.8	9.13	9.75	0.00	0	0		
									point387	387	11,238,105.0	3,814,178.5	9.10	9.75	0.00	0	0		
									point388	388	11,238,108.0	3,814,179.0	9.06	9.75	0.00	0	0		
									point389	389	11,238,109.0	3,814,173.8	9.01	9.75	0.00	0	0		
									point390	390	11,238,106.0	3,814,173.2	9.01	9.75	0.00	0	0		
									point391	391	11,238,109.0	3,814,158.0	8.86	9.75	0.00	0	0		
									point392	392	11,238,043.0	3,814,151.8	9.08	9.75	0.00	0	0		
									point354	354	11,238,042.0	3,814,154.5	9.14	9.75					
Barrier14	W	0.00	30.48	0.00				0.00	point393	393	11,237,904.0	3,814,078.5	7.69	9.75	0.00	0	0		
									point395	395	11,237,910.0	3,814,086.2	7.65	9.75	0.00	0	0		
									point396	396	11,237,913.0	3,814,084.2	7.65	9.75	0.00	0	0		
									point397	397	11,237,913.0	3,814,085.5	7.65	9.75	0.00	0	0		
									point398	398	11,237,913.0	3,814,086.2	7.67	9.75	0.00	0	0		
									point399	399	11,237,917.0	3,814,092.8	7.64	9.75	0.00	0	0		
									point400	400	11,237,925.0	3,814,086.8	7.57	9.75	0.00	0	0		
									point401	401	11,237,926.0	3,814,088.5	7.59	9.75	0.00	0	0		
									point403	403	11,237,928.0	3,814,086.2	7.59	9.75	0.00	0	0		
									point404	404	11,237,937.0	3,814,080.0	7.58	9.75	0.00	0	0		
									point405	405	11,237,936.0	3,814,079.2	7.57	9.75	0.00	0	0		
									point406	406	11,237,938.0	3,814,077.0	7.57	9.75	0.00	0	0		
									point407	407	11,237,939.0	3,814,077.5	7.58	9.75	0.00	0	0		
									point408	408	11,237,942.0	3,814,074.8	7.57	9.75	0.00	0	0		
									point409	409	11,237,941.0	3,814,073.8	7.56	9.75	0.00	0	0		
									point410	410	11,237,946.0	3,814,069.8	7.56	9.75	0.00	0	0		
									point411	411	11,237,947.0	3,814,070.5	7.57	9.75	0.00	0	0		
									point412	412	11,237,949.0	3,814,068.5	7.56	9.75	0.00	0	0		
									point413	413	11,237,950.0	3,814,069.5	7.57	9.75	0.00	0	0		
									point414	414	11,237,956.0	3,814,063.2	7.58	9.75	0.00	0	0		
									point415	415	11,237,956.0	3,814,062.2	7.58	9.75	0.00	0	0		
									point416	416	11,237,958.0	3,814,060.5	7.58	9.75	0.00	0	0		
									point417	417	11,237,955.0	3,814,056.5	7.55	9.75	0.00	0	0		
									point418	418	11,237,956.0	3,814,055.2	7.55	9.75	0.00	0	0		
									point419	419	11,237,959.0	3,814,058.0	7.57	9.75	0.00	0	0		
									point420	420	11,237,966.0	3,814,052.2	7.57	9.75	0.00	0	0		
									point421	421	11,237,964.0	3,814,050.0	7.54	9.75	0.00	0	0		
									point422	422	11,237,966.0	3,814,048.2	7.53	9.75	0.00	0	0		
									point423	423	11,237,921.0	3,813,990.2	6.81	9.75	0.00	0	0		
									point424	424	11,237,913.0	3,813,997.2	6.88	9.75	0.00	0	0		
									point425	425	11,237,914.0	3,813,999.2	6.88	9.75	0.00	0	0		
									point426	426	11,237,913.0	3,814,000.0	6.90	9.75	0.00	0	0		
									point427	427	11,237,911.0	3,813,997.8	6.90	9.75	0.00	0	0		
									point428	428	11,237,904.0	3,814,004.2	7.02	9.75	0.00	0	0		
									point429	429	11,237,907.0	3,814,006.5	7.02	9.75	0.00	0	0		
									point430	430	11,237,904.0	3,814,007.2	7.04	9.75	0.00	0	0		
									point431	431	11,237,908.0	3,814,011.2	7.03	9.75	0.00	0	0		
									point432	432	11,237,909.0	3,814,009.8	7.01	9.75	0.00	0	0		
									point433	433	11,237,911.0	3,814,012.0	7.01	9.75	0.00	0	0		
									point434	434	11,237,910.0	3,814,012.8	7.03	9.75	0.00	0	0		
									point435	435	11,237,913.0	3,814,015.2	7.03	9.75	0.00	0	0		

									point436	436	11,237,911.0	3,814,016.0	7.04	9.75	0.00	0	0		
									point437	437	11,237,917.0	3,814,023.8	7.06	9.75	0.00	0	0		
									point438	438	11,237,917.0	3,814,022.8	7.04	9.75	0.00	0	0		
									point439	439	11,237,922.0	3,814,027.0	7.09	9.75	0.00	0	0		
									point440	440	11,237,920.0	3,814,028.0	7.10	9.75	0.00	0	0		
									point441	441	11,237,926.0	3,814,036.2	7.22	9.75	0.00	0	0		
									point442	442	11,237,928.0	3,814,035.2	7.21	9.75	0.00	0	0		
									point443	443	11,237,931.0	3,814,039.2	7.27	9.75	0.00	0	0		
									point444	444	11,237,928.0	3,814,040.5	7.28	9.75	0.00	0	0		
									point445	445	11,237,932.0	3,814,044.5	7.34	9.75	0.00	0	0		
									point446	446	11,237,933.0	3,814,044.0	7.34	9.75	0.00	0	0		
									point447	447	11,237,936.0	3,814,047.5	7.39	9.75	0.00	0	0		
									point448	448	11,237,937.0	3,814,045.5	7.37	9.75	0.00	0	0		
									point449	449	11,237,938.0	3,814,046.5	7.39	9.75	0.00	0	0		
									point450	450	11,237,939.0	3,814,046.0	7.38	9.75	0.00	0	0		
									point451	451	11,237,941.0	3,814,049.2	7.43	9.75	0.00	0	0		
									point452	452	11,237,942.0	3,814,049.5	7.44	9.75	0.00	0	0		
									point453	453	11,237,942.0	3,814,050.2	7.44	9.75	0.00	0	0		
									point454	454	11,237,942.0	3,814,052.0	7.46	9.75	0.00	0	0		
									point455	455	11,237,939.0	3,814,053.5	7.46	9.75	0.00	0	0		
									point456	456	11,237,938.0	3,814,053.2	7.46	9.75	0.00	0	0		
									point459	459	11,237,935.0	3,814,055.2	7.44	9.75	0.00	0	0		
									point460	460	11,237,933.0	3,814,053.5	7.43	9.75	0.00	0	0		
									point461	461	11,237,928.0	3,814,056.5	7.42	9.75	0.00	0	0		
									point462	462	11,237,930.0	3,814,057.2	7.43	9.75	0.00	0	0		
									point463	463	11,237,928.0	3,814,058.8	7.43	9.75	0.00	0	0		
									point464	464	11,237,927.0	3,814,057.5	7.42	9.75	0.00	0	0		
									point465	465	11,237,919.0	3,814,064.0	7.42	9.75	0.00	0	0		
									point466	466	11,237,920.0	3,814,064.8	7.43	9.75	0.00	0	0		
									point467	467	11,237,916.0	3,814,067.8	7.43	9.75	0.00	0	0		
									point468	468	11,237,915.0	3,814,067.2	7.44	9.75	0.00	0	0		
									point469	469	11,237,914.0	3,814,068.5	7.47	9.75	0.00	0	0		
									point470	470	11,237,916.0	3,814,070.0	7.45	9.75	0.00	0	0		
									point471	471	11,237,914.0	3,814,071.8	7.50	9.75	0.00	0	0		
									point472	472	11,237,914.0	3,814,071.0	7.50	9.75	0.00	0	0		
									point474	474	11,237,910.0	3,814,074.8	7.60	9.75	0.00	0	0		
									point475	475	11,237,908.0	3,814,076.5	7.66	9.75	0.00	0	0		
									point478	478	11,237,907.0	3,814,074.8	7.68	9.75	0.00	0	0		
									point479	479	11,237,907.0	3,814,077.0	7.68	9.75	0.00	0	0		
									point394	394	11,237,904.0	3,814,078.5	7.69	9.75					
Barrier15	W	0.00	30.48	0.00				0.00	point480	480	11,237,882.0	3,814,007.5	7.28	4.60	0.00	0	0		
									point482	482	11,237,891.0	3,814,025.5	7.31	4.60	0.00	0	0		
									point483	483	11,237,893.0	3,814,025.0	7.28	4.60	0.00	0	0		
									point484	484	11,237,894.0	3,814,025.5	7.28	4.60	0.00	0	0		
									point485	485	11,237,896.0	3,814,024.0	7.25	4.60	0.00	0	0		
									point486	486	11,237,896.0	3,814,023.2	7.25	4.60	0.00	0	0		
									point487	487	11,237,897.0	3,814,022.5	7.22	4.60	0.00	0	0		
									point488	488	11,237,900.0	3,814,021.0	7.19	4.60	0.00	0	0		
									point489	489	11,237,896.0	3,814,013.5	7.17	4.60	0.00	0	0		

									point490	490	11,237,899.0	3,814,011.8	7.13	4.60	0.00	0	0		
									point491	491	11,237,896.0	3,814,005.5	7.11	4.60	0.00	0	0		
									point492	492	11,237,898.0	3,814,004.2	7.08	4.60	0.00	0	0		
									point493	493	11,237,896.0	3,813,999.5	7.15	4.60	0.00	0	0		
									point494	494	11,237,893.0	3,814,000.8	7.17	4.60	0.00	0	0		
									point495	495	11,237,893.0	3,814,000.0	7.18	4.60	0.00	0	0		
									point496	496	11,237,891.0	3,814,001.0	7.19	4.60	0.00	0	0		
									point497	497	11,237,889.0	3,813,999.2	7.23	4.60	0.00	0	0		
									point498	498	11,237,888.0	3,814,001.0	7.25	4.60	0.00	0	0		
									point499	499	11,237,888.0	3,814,002.8	7.23	4.60	0.00	0	0		
									point501	501	11,237,887.0	3,814,003.8	7.23	4.60	0.00	0	0		
									point502	502	11,237,885.0	3,814,006.0	7.27	4.60	0.00	0	0		
									point481	481	11,237,885.0	3,814,007.0	7.25	4.60					
Barrier16	W	0.00	30.48	0.00				0.00	point503	503	11,237,835.0	3,813,995.5	7.48	9.75	0.00	0	0		
									point509	509	11,237,825.0	3,813,981.5	7.45	9.75	0.00	0	0		
									point505	505	11,237,875.0	3,813,944.8	7.41	9.75	0.00	0	0		
									point506	506	11,237,898.0	3,813,973.0	7.33	9.75	0.00	0	0		
									point507	507	11,237,883.0	3,813,983.5	7.31	9.75	0.00	0	0		
									point508	508	11,237,872.0	3,813,968.5	7.42	9.75					

Dudek 18 April 2014
M Greene TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Proj Goleta Cal Run

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			m	m	m	m	dBA	dBA	dB	dB	
Receiver 1	1	1	11,238,159.0	3,814,274.5	10.07	1.50	0.00	66	10.0	8.0	
Receiver2	2	1	11,238,145.0	3,814,273.0	10.17	1.50	0.00	66	10.0	8.0	
Receiver3	3	1	11,238,128.0	3,814,272.5	10.30	1.50	0.00	66	10.0	8.0	
Receiver4	4	1	11,238,113.0	3,814,270.8	10.41	1.50	0.00	66	10.0	8.0	
Receiver5	5	1	11,238,106.0	3,814,263.8	10.35	1.50	0.00	66	10.0	8.0	
Receiver6	6	1	11,238,108.0	3,814,258.8	10.36	1.50	0.00	66	10.0	8.0	
Receiver7	7	1	11,238,109.0	3,814,250.5	10.35	1.50	0.00	66	10.0	8.0	
Receiver8	8	1	11,238,117.0	3,814,245.8	10.32	1.50	0.00	66	10.0	8.0	
Receiver9	9	1	11,238,130.0	3,814,247.5	10.29	1.50	0.00	66	10.0	8.0	
Receiver10	10	1	11,238,141.0	3,814,238.5	10.29	1.50	0.00	66	10.0	8.0	
Receiver11	11	1	11,238,133.0	3,814,238.0	10.30	1.50	0.00	66	10.0	8.0	
Receiver12	12	1	11,238,122.0	3,814,237.0	10.31	1.50	0.00	66	10.0	8.0	
Receiver13	13	1	11,238,115.0	3,814,231.2	10.33	1.50	0.00	66	10.0	8.0	
Receiver14	14	1	11,238,116.0	3,814,222.0	10.32	1.50	0.00	66	10.0	8.0	
Receiver15	15	1	11,238,124.0	3,814,211.8	10.30	1.50	0.00	66	10.0	8.0	
Receiver16	16	1	11,238,169.0	3,814,225.2	10.17	1.50	0.00	66	10.0	8.0	
Receiver17	17	1	11,238,166.0	3,814,240.8	10.27	1.50	0.00	66	10.0	8.0	
Receiver18	18	1	11,238,169.0	3,814,252.8	10.31	1.50	0.00	66	10.0	8.0	
Receiver19	19	1	11,238,164.0	3,814,267.8	10.15	1.50	0.00	66	10.0	8.0	
Receiver20	20	1	11,238,095.0	3,814,263.0	10.46	1.50	0.00	66	10.0	8.0	
Receiver21	21	1	11,238,091.0	3,814,262.8	10.62	1.50	0.00	66	10.0	8.0	
Receiver22	22	1	11,238,083.0	3,814,261.0	10.88	1.50	0.00	66	10.0	8.0	

Receiver23	23	1	11,238,077.0	3,814,261.0	11.08	1.50	0.00	66	10.0	8.0	
Receiver24	24	1	11,238,071.0	3,814,259.5	11.26	1.50	0.00	66	10.0	8.0	
Receiver25	25	1	11,238,064.0	3,814,257.5	11.41	1.50	0.00	66	10.0	8.0	
Receiver26	26	1	11,238,059.0	3,814,259.2	11.50	1.50	0.00	66	10.0	8.0	
Receiver27	27	1	11,238,052.0	3,814,258.2	11.64	1.50	0.00	66	10.0	8.0	
Receiver28	28	1	11,238,045.0	3,814,258.0	11.76	1.50	0.00	66	10.0	8.0	
Receiver29	29	1	11,238,039.0	3,814,257.5	11.87	1.50	0.00	66	10.0	8.0	
Receiver30	30	1	11,238,036.0	3,814,252.8	11.93	1.50	0.00	66	10.0	8.0	
Receiver31	31	1	11,238,036.0	3,814,245.8	11.93	1.50	0.00	66	10.0	8.0	
Receiver32	32	1	11,238,033.0	3,814,242.2	11.97	1.50	0.00	66	10.0	8.0	
Receiver33	33	1	11,238,033.0	3,814,238.2	11.97	1.50	0.00	66	10.0	8.0	
Receiver34	34	1	11,238,037.0	3,814,235.5	11.90	1.50	0.00	66	10.0	8.0	
Receiver35	35	1	11,238,042.0	3,814,233.0	11.77	1.50	0.00	66	10.0	8.0	
Receiver36	36	1	11,238,052.0	3,814,235.0	11.55	1.50	0.00	66	10.0	8.0	
Receiver37	37	1	11,238,074.0	3,814,235.8	10.98	1.50	0.00	66	10.0	8.0	
Receiver38	38	1	11,238,092.0	3,814,237.8	10.49	1.50	0.00	66	10.0	8.0	
Receiver39	39	1	11,238,097.0	3,814,238.2	10.35	1.50	0.00	66	10.0	8.0	
Receiver40	40	1	11,238,100.0	3,814,243.0	10.34	1.50	0.00	66	10.0	8.0	
Receiver41	41	1	11,238,100.0	3,814,249.2	10.34	1.50	0.00	66	10.0	8.0	
Receiver42	42	1	11,238,102.0	3,814,252.5	10.34	1.50	0.00	66	10.0	8.0	
Receiver43	43	1	11,238,102.0	3,814,257.5	10.34	1.50	0.00	66	10.0	8.0	
Receiver44	44	1	11,238,006.0	3,814,253.2	12.23	1.50	0.00	66	10.0	8.0	
Receiver45	45	1	11,238,002.0	3,814,253.8	12.28	1.50	0.00	66	10.0	8.0	
Receiver46	46	1	11,237,996.0	3,814,250.2	12.38	1.50	0.00	66	10.0	8.0	
Receiver47	47	1	11,237,988.0	3,814,249.5	12.42	1.50	0.00	66	10.0	8.0	
Receiver48	48	1	11,237,985.0	3,814,247.5	12.42	1.50	0.00	66	10.0	8.0	
Receiver49	49	1	11,237,980.0	3,814,249.0	12.43	1.50	0.00	66	10.0	8.0	
Receiver50	50	1	11,237,972.0	3,814,248.2	12.45	1.50	0.00	66	10.0	8.0	
Receiver51	51	1	11,237,967.0	3,814,250.8	12.41	1.50	0.00	66	10.0	8.0	
Receiver52	52	1	11,237,963.0	3,814,249.0	12.43	1.50	0.00	66	10.0	8.0	
Receiver53	53	1	11,237,960.0	3,814,244.2	12.50	1.50	0.00	66	10.0	8.0	
Receiver54	54	1	11,237,961.0	3,814,232.5	12.50	1.50	0.00	66	10.0	8.0	
Receiver55	55	1	11,237,963.0	3,814,224.5	12.50	1.50	0.00	66	10.0	8.0	
Receiver56	56	1	11,237,965.0	3,814,220.8	12.50	1.50	0.00	66	10.0	8.0	
Receiver57	57	1	11,237,969.0	3,814,220.0	12.53	1.50	0.00	66	10.0	8.0	
Receiver58	58	1	11,237,985.0	3,814,224.2	12.62	1.50	0.00	66	10.0	8.0	

Receiver59	59	1	11,238,004.0	3,814,222.5	12.77	1.50	0.00	66	10.0	8.0	
Receiver60	60	1	11,238,009.0	3,814,224.5	12.77	1.50	0.00	66	10.0	8.0	
Receiver61	61	1	11,238,010.0	3,814,229.5	12.68	1.50	0.00	66	10.0	8.0	
Receiver62	62	1	11,238,009.0	3,814,238.0	12.49	1.50	0.00	66	10.0	8.0	
Receiver63	63	1	11,238,008.0	3,814,249.2	12.26	1.50	0.00	66	10.0	8.0	
Receiver64	64	1	11,237,950.0	3,814,242.0	12.50	1.50	0.00	66	10.0	8.0	
Receiver65	65	1	11,237,947.0	3,814,247.8	12.52	1.50	0.00	66	10.0	8.0	
Receiver66	66	1	11,237,942.0	3,814,248.5	12.58	1.50	0.00	66	10.0	8.0	
Receiver67	67	1	11,237,937.0	3,814,245.2	12.62	1.50	0.00	66	10.0	8.0	
Receiver68	68	1	11,237,928.0	3,814,244.2	12.71	1.50	0.00	66	10.0	8.0	
Receiver69	69	1	11,237,925.0	3,814,242.0	12.75	1.50	0.00	66	10.0	8.0	
Receiver70	70	1	11,237,921.0	3,814,244.0	12.79	1.50	0.00	66	10.0	8.0	
Receiver71	71	1	11,237,913.0	3,814,243.0	12.87	1.50	0.00	66	10.0	8.0	
Receiver72	72	1	11,237,908.0	3,814,245.2	12.93	1.50	0.00	66	10.0	8.0	
Receiver73	73	1	11,237,903.0	3,814,243.8	12.98	1.50	0.00	66	10.0	8.0	
Receiver74	74	1	11,237,900.0	3,814,239.2	13.00	1.50	0.00	66	10.0	8.0	
Receiver75	75	1	11,237,902.0	3,814,232.8	13.00	1.50	0.00	66	10.0	8.0	
Receiver76	76	1	11,237,903.0	3,814,226.8	12.98	1.50	0.00	66	10.0	8.0	
Receiver77	77	1	11,237,903.0	3,814,220.2	13.03	1.50	0.00	66	10.0	8.0	
Receiver78	78	1	11,237,907.0	3,814,215.5	13.05	1.50	0.00	66	10.0	8.0	
Receiver79	79	1	11,237,910.0	3,814,214.8	13.00	1.50	0.00	66	10.0	8.0	
Receiver80	80	1	11,237,915.0	3,814,218.2	12.88	1.50	0.00	66	10.0	8.0	
Receiver81	81	1	11,237,924.0	3,814,219.0	12.75	1.50	0.00	66	10.0	8.0	
Receiver82	82	1	11,237,931.0	3,814,219.8	12.64	1.50	0.00	66	10.0	8.0	
Receiver83	83	1	11,237,938.0	3,814,220.2	12.55	1.50	0.00	66	10.0	8.0	
Receiver84	84	1	11,237,944.0	3,814,216.5	12.50	1.50	0.00	66	10.0	8.0	
Receiver85	85	1	11,237,949.0	3,814,219.2	12.50	1.50	0.00	66	10.0	8.0	
Receiver86	86	1	11,237,950.0	3,814,224.8	12.50	1.50	0.00	66	10.0	8.0	
Receiver87	87	1	11,237,950.0	3,814,235.2	12.50	1.50	0.00	66	10.0	8.0	
Receiver88	88	1	11,237,930.0	3,814,204.0	13.00	1.50	0.00	66	10.0	8.0	
Receiver89	89	1	11,237,924.0	3,814,205.8	13.04	1.50	0.00	66	10.0	8.0	
Receiver90	90	1	11,237,914.0	3,814,206.8	13.10	1.50	0.00	66	10.0	8.0	
Receiver91	91	1	11,237,907.0	3,814,206.0	13.14	1.50	0.00	66	10.0	8.0	
Receiver92	92	1	11,237,903.0	3,814,198.5	13.08	1.50	0.00	66	10.0	8.0	
Receiver93	93	1	11,237,905.0	3,814,190.5	13.00	1.50	0.00	66	10.0	8.0	
Receiver94	94	1	11,237,905.0	3,814,184.2	13.00	1.50	0.00	66	10.0	8.0	

Receiver95	95	1	11,237,905.0	3,814,175.2	13.00	1.50	0.00	66	10.0	8.0	
Receiver96	96	1	11,237,905.0	3,814,168.2	13.00	1.50	0.00	66	10.0	8.0	
Receiver97	97	1	11,237,904.0	3,814,159.2	13.00	1.50	0.00	66	10.0	8.0	
Receiver98	98	1	11,237,904.0	3,814,152.2	13.00	1.50	0.00	66	10.0	8.0	
Receiver99	99	1	11,237,899.0	3,814,146.2	13.04	1.50	0.00	66	10.0	8.0	
Receiver100	100	1	11,237,900.0	3,814,140.0	13.07	1.50	0.00	66	10.0	8.0	
Receiver101	101	1	11,237,905.0	3,814,138.0	13.07	1.50	0.00	66	10.0	8.0	
Receiver102	102	1	11,237,916.0	3,814,137.8	13.03	1.50	0.00	66	10.0	8.0	
Receiver103	103	1	11,237,926.0	3,814,137.0	13.00	1.50	0.00	66	10.0	8.0	
Receiver104	104	1	11,237,931.0	3,814,142.8	13.00	1.50	0.00	66	10.0	8.0	
Receiver105	105	1	11,237,930.0	3,814,169.2	13.00	1.50	0.00	66	10.0	8.0	
Receiver106	106	1	11,237,930.0	3,814,185.8	13.00	1.50	0.00	66	10.0	8.0	
Receiver107	107	1	11,237,933.0	3,814,200.5	13.00	1.50	0.00	66	10.0	8.0	
Receiver108	108	1	11,237,917.0	3,814,093.8	9.14	1.50	0.00	66	10.0	8.0	
Receiver109	109	1	11,237,913.0	3,814,087.0	9.16	1.50	0.00	66	10.0	8.0	
Receiver110	110	1	11,237,908.0	3,814,085.0	9.15	1.50	0.00	66	10.0	8.0	
Receiver111	111	1	11,237,904.0	3,814,080.2	9.17	1.50	0.00	66	10.0	8.0	
Receiver112	112	1	11,237,905.0	3,814,076.5	9.20	1.50	0.00	66	10.0	8.0	
Receiver113	113	1	11,237,911.0	3,814,071.5	9.05	1.50	0.00	66	10.0	8.0	
Receiver114	114	1	11,237,917.0	3,814,065.5	8.92	1.50	0.00	66	10.0	8.0	
Receiver115	115	1	11,237,925.0	3,814,058.0	8.91	1.50	0.00	66	10.0	8.0	
Receiver116	116	1	11,237,931.0	3,814,054.2	8.92	1.50	0.00	66	10.0	8.0	
Receiver117	117	1	11,237,936.0	3,814,053.0	8.94	1.50	0.00	66	10.0	8.0	
Receiver118	118	1	11,237,935.0	3,814,046.8	8.87	1.50	0.00	66	10.0	8.0	
Receiver119	119	1	11,237,928.0	3,814,041.8	8.79	1.50	0.00	66	10.0	8.0	
Receiver121	121	1	11,237,924.0	3,814,033.5	8.67	1.50	0.00	66	10.0	8.0	
Receiver122	122	1	11,237,915.0	3,814,023.2	8.57	1.50	0.00	66	10.0	8.0	
Receiver123	123	1	11,237,910.0	3,814,016.2	8.56	1.50	0.00	66	10.0	8.0	
Receiver124	124	1	11,237,905.0	3,814,008.5	8.54	1.50	0.00	66	10.0	8.0	
Receiver125	125	1	11,237,907.0	3,814,001.0	8.48	1.50	0.00	66	10.0	8.0	
Receiver126	126	1	11,237,909.0	3,813,999.0	8.43	1.50	0.00	66	10.0	8.0	
Receiver127	127	1	11,237,914.0	3,813,994.0	8.38	1.50	0.00	66	10.0	8.0	
Receiver128	128	1	11,237,917.0	3,813,991.8	8.34	1.50	0.00	66	10.0	8.0	
Receiver129	129	1	11,237,925.0	3,813,995.5	8.25	1.50	0.00	66	10.0	8.0	
Receiver130	130	1	11,237,936.0	3,814,009.0	8.45	1.50	0.00	66	10.0	8.0	
Receiver131	131	1	11,237,948.0	3,814,025.0	8.68	1.50	0.00	66	10.0	8.0	

Receiver132	132	1	11,237,961.0	3,814,041.0	8.92	1.50	0.00	66	10.0	8.0	
Receiver133	133	1	11,237,963.0	3,814,056.2	9.08	1.50	0.00	66	10.0	8.0	
Receiver134	134	1	11,237,950.0	3,814,068.8	9.07	1.50	0.00	66	10.0	8.0	
Receiver135	135	1	11,237,956.0	3,814,064.8	9.08	1.50	0.00	66	10.0	8.0	
Receiver136	136	1	11,237,941.0	3,814,076.0	9.08	1.50	0.00	66	10.0	8.0	
Receiver137	137	1	11,237,936.0	3,814,082.0	9.09	1.50	0.00	66	10.0	8.0	
Receiver138	138	1	11,237,927.0	3,814,088.2	9.09	1.50	0.00	66	10.0	8.0	
Receiver139	139	1	11,237,889.0	3,814,025.8	8.81	1.50	0.00	66	10.0	8.0	
Receiver140	140	1	11,237,883.0	3,814,010.8	8.77	1.50	0.00	66	10.0	8.0	
Receiver141	141	1	11,237,902.0	3,814,017.5	8.64	1.50	0.00	66	10.0	8.0	
Receiver142	142	1	11,237,900.0	3,814,035.8	8.80	1.50	0.00	66	10.0	8.0	
Receiver143	143	1	11,237,904.0	3,814,052.5	8.88	1.50	0.00	66	10.0	8.0	
Receiver144	144	1	11,237,887.0	3,814,002.8	8.75	1.50	0.00	66	10.0	8.0	
Receiver145	145	1	11,238,103.0	3,814,181.8	10.66	1.50	0.00	66	10.0	8.0	
Receiver146	146	1	11,238,087.0	3,814,180.8	10.85	1.50	0.00	66	10.0	8.0	
Receiver147	147	1	11,238,055.0	3,814,178.0	11.10	1.50	0.00	66	10.0	8.0	
Receiver148	148	1	11,238,037.0	3,814,169.0	10.88	1.50	0.00	66	10.0	8.0	
Receiver149	149	1	11,238,038.0	3,814,158.0	10.72	1.50	0.00	66	10.0	8.0	
Receiver150	150	1	11,238,052.0	3,814,151.8	10.57	1.50	0.00	66	10.0	8.0	
Receiver151	151	1	11,238,056.0	3,814,218.2	11.20	1.50	0.00	66	10.0	8.0	
Receiver152	152	1	11,238,091.0	3,814,225.2	10.34	1.50	0.00	66	10.0	8.0	
Receiver153	153	1	11,238,095.0	3,814,229.0	10.34	1.50	0.00	66	10.0	8.0	
Receiver154	154	1	11,238,105.0	3,814,233.2	10.34	1.50	0.00	66	10.0	8.0	
Receiver155	155	1	11,238,098.0	3,814,232.8	10.34	1.50	0.00	66	10.0	8.0	
Receiver156	156	1	11,238,078.0	3,814,220.5	10.50	1.50	0.00	66	10.0	8.0	
Receiver157	157	1	11,238,078.0	3,814,216.0	10.57	1.50	0.00	66	10.0	8.0	
Receiver158	158	1	11,238,085.0	3,814,213.8	10.44	1.50	0.00	66	10.0	8.0	
Receiver159	159	1	11,238,091.0	3,814,209.0	10.34	1.50	0.00	66	10.0	8.0	
Receiver160	160	1	11,238,105.0	3,814,210.0	10.34	1.50	0.00	66	10.0	8.0	
Receiver161	161	1	11,238,110.0	3,814,214.2	10.34	1.50	0.00	66	10.0	8.0	
Receiver162	162	1	11,238,111.0	3,814,220.8	10.34	1.50	0.00	66	10.0	8.0	
Receiver163	163	1	11,238,108.0	3,814,228.8	10.34	1.50	0.00	66	10.0	8.0	
Receiver164	164	1	11,237,987.0	3,814,210.2	12.32	1.50	0.00	66	10.0	8.0	
Receiver165	165	1	11,237,958.0	3,814,208.8	12.47	1.50	0.00	66	10.0	8.0	
Receiver166	166	1	11,237,953.0	3,814,188.0	12.45	1.50	0.00	66	10.0	8.0	
Receiver167	167	1	11,237,996.0	3,814,185.0	11.44	1.50	0.00	66	10.0	8.0	

Receiver168	168	1	11,238,006.0	3,814,175.2	11.18	1.50	0.00	66	10.0	8.0	
Receiver169	169	1	11,237,988.0	3,814,166.5	11.21	1.50	0.00	66	10.0	8.0	
Receiver170	170	1	11,237,974.0	3,814,133.8	12.49	1.50	0.00	66	10.0	8.0	
Receiver171	171	1	11,237,992.0	3,814,117.5	12.44	1.50	0.00	66	10.0	8.0	
Receiver172	172	1	11,237,833.0	3,813,996.5	8.83	1.50	0.00	66	10.0	8.0	
Receiver173	173	1	11,237,824.0	3,813,983.8	8.91	1.50	0.00	66	10.0	8.0	
Receiver174	174	1	11,237,833.0	3,813,973.2	9.05	1.50	0.00	66	10.0	8.0	
Receiver175	175	1	11,237,867.0	3,813,948.0	9.00	1.50	0.00	66	10.0	8.0	
Receiver176	176	1	11,237,883.0	3,813,953.8	8.88	1.50	0.00	66	10.0	8.0	
Receiver177	177	1	11,237,889.0	3,813,980.0	8.81	1.50	0.00	66	10.0	8.0	
Receiver178	178	1	11,237,880.0	3,813,982.0	8.82	1.50	0.00	66	10.0	8.0	
Receiver179	179	1	11,237,874.0	3,813,973.0	8.89	1.50	0.00	66	10.0	8.0	
Receiver180	180	1	11,237,861.0	3,813,977.2	8.90	1.50	0.00	66	10.0	8.0	
Receiver181	181	1	11,237,844.0	3,813,990.5	8.88	1.50	0.00	66	10.0	8.0	
Receiver182	182	1	11,238,038.0	3,814,220.0	11.73	1.50	0.00	66	10.0	8.0	
ST_LT1	184	1	11,238,078.0	3,814,278.5	10.87	1.50	0.00	66	10.0	8.0	Y

Dudek
M Greene
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Proj Goleta Cal Run
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 20 deg C, 50% RH

18 April 2014
TNM 2.5
Calculated with TNM 2.5

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver 1	1	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver2	2	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver3	3	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver4	4	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver5	5	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver6	6	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver7	7	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver8	8	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver9	9	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver10	10	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver11	11	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver12	12	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver13	13	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver14	14	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver15	15	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver16	16	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver17	17	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver18	18	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver19	19	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver20	20	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver21	21	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver22	22	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver23	23	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver24	24	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Receiver25	25	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver26	26	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver27	27	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver28	28	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver29	29	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver30	30	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver31	31	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver32	32	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver33	33	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver34	34	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver35	35	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver36	36	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver37	37	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver38	38	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver39	39	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver40	40	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver41	41	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver42	42	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver43	43	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver44	44	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver45	45	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver46	46	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver47	47	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver48	48	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver49	49	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver50	50	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver51	51	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver52	52	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver53	53	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver54	54	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver55	55	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver56	56	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver57	57	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver58	58	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver59	59	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver60	60	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver61	61	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver62	62	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver63	63	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver64	64	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver65	65	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Receiver66	66	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver67	67	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver68	68	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver69	69	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver70	70	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver71	71	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver72	72	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver73	73	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver74	74	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver75	75	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver76	76	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver77	77	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver78	78	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver79	79	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver80	80	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver81	81	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver82	82	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver83	83	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver84	84	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver85	85	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver86	86	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver87	87	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver88	88	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver89	89	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver90	90	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver91	91	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver92	92	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver93	93	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver94	94	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver95	95	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver96	96	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver97	97	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver98	98	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver99	99	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver100	100	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver101	101	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver102	102	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver103	103	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver104	104	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver105	105	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver106	106	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Receiver107	107	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver108	108	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver109	109	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver110	110	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver111	111	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver112	112	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver113	113	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver114	114	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver115	115	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver116	116	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver117	117	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver118	118	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver119	119	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver121	121	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver122	122	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver123	123	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver124	124	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver125	125	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver126	126	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver127	127	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver128	128	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver129	129	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver130	130	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver131	131	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver132	132	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver133	133	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver134	134	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver135	135	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver136	136	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver137	137	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver138	138	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver139	139	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver140	140	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver141	141	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver142	142	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver143	143	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver144	144	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver145	145	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver146	146	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver147	147	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver148	148	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Receiver149	149	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver150	150	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver151	151	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver152	152	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver153	153	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver154	154	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver155	155	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver156	156	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver157	157	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver158	158	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver159	159	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver160	160	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver161	161	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver162	162	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver163	163	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver164	164	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver165	165	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver166	166	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver167	167	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver168	168	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver169	169	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver170	170	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver171	171	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver172	172	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver173	173	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver174	174	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver175	175	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver176	176	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver177	177	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver178	178	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver179	179	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver180	180	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver181	181	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
Receiver182	182	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
ST_LT1	184	1	0.0	54.8	66	54.8	10	----	54.8	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	182	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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INPUT: ROADWAYS
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Project Goleta Ex

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	m			m	m	m		km/h	%		
Los Carneros Road	20.0	point7	7	11,237,697.0	3,813,909.0	7.60				Average	
		point8	8	11,237,759.0	3,813,961.8	10.70				Average	
		point9	9	11,237,783.0	3,813,989.8	11.00				Average	
		point10	10	11,237,808.0	3,814,029.2	12.50				Average	
		point11	11	11,237,830.0	3,814,079.5	14.00				Average	
		point12	12	11,237,846.0	3,814,131.0	16.00				Average	
		point13	13	11,237,848.0	3,814,231.0	18.50				Average	
		point14	14	11,237,852.0	3,814,289.5	21.30				Average	
		point15	15	11,237,854.0	3,814,330.0	21.50					
US 101 SB Onramp	12.0	point20	20	11,237,863.0	3,814,329.0	21.50				Average	
		point21	21	11,237,917.0	3,814,334.8	19.00				Average	
		point22	22	11,237,998.0	3,814,343.0	15.80				Average	
		point23	23	11,238,188.0	3,814,363.8	12.20				Average	
		point24	24	11,238,395.0	3,814,383.0	10.40					
US 101 SB Offramp	12.0	point26	26	11,237,577.0	3,814,298.0	12.20				Average	
		point27	27	11,237,683.0	3,814,309.2	14.30				Average	
		point28	28	11,237,761.0	3,814,317.5	18.00				Average	
		point29	29	11,237,846.0	3,814,327.8	21.50					
US 101 SB	16.0	point30	30	11,237,580.0	3,814,320.0	12.80				Average	
		point31	31	11,237,676.0	3,814,338.5	12.50				Average	
		point32	32	11,237,752.0	3,814,353.2	12.20				Average	
		point33	33	11,237,789.0	3,814,359.5	12.20				Average	
		point34	34	11,237,847.0	3,814,365.8	12.50					
US 101 SB-2	16.0	point36	36	11,237,866.0	3,814,369.0	12.50				Average	
		point37	37	11,237,907.0	3,814,372.2	11.30				Average	

		point38	38	11,237,997.0	3,814,376.5	11.00				Average	
		point39	39	11,238,184.0	3,814,379.8	11.00				Average	
		point40	40	11,238,395.0	3,814,392.5	10.40					
US 101 NB	16.0	point44	44	11,238,394.0	3,814,413.5	9.10				Average	
		point45	45	11,238,182.0	3,814,403.5	9.80				Average	
		point46	46	11,237,996.0	3,814,396.8	11.30				Average	
		point47	47	11,237,902.0	3,814,389.0	10.70				Average	
		point48	48	11,237,866.0	3,814,386.8	12.50					
US 101 NB-2	16.0	point49	49	11,237,848.0	3,814,384.0	12.50				Average	
		point50	50	11,237,787.0	3,814,375.8	12.20				Average	
		point51	51	11,237,749.0	3,814,370.0	12.20				Average	
		point52	52	11,237,674.0	3,814,356.5	13.10				Average	
		point53	53	11,237,579.0	3,814,337.2	12.50					
Los Carneros Road-N of US 101 SB Ramps	20.0	point55	55	11,237,854.0	3,814,330.0	21.50				Average	
		point57	57	11,237,857.0	3,814,385.2	18.30				Average	
		point17	17	11,237,861.0	3,814,453.2	16.50					

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INPUT: TRAFFIC FOR LAeq1h Percentages
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Project Goleta Ex

Roadway	Points												
Name	Name	No.	Segment										
			Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			Volume	P	S	P	S	P	S	P	S	P	S
			veh/hr	%	km/h	%	km/h	%	km/h	%	km/h	%	km/h
Los Carneros Road	point7	7	2380	95	72	2	72	3	72	0	0	0	0
	point8	8	2380	95	72	2	72	3	72	0	0	0	0
	point9	9	2380	95	72	2	72	3	72	0	0	0	0
	point10	10	2380	95	72	2	72	3	72	0	0	0	0
	point11	11	2380	95	72	2	72	3	72	0	0	0	0
	point12	12	2380	95	72	2	72	3	72	0	0	0	0
	point13	13	2380	95	72	2	72	3	72	0	0	0	0
	point14	14	2380	95	72	2	72	3	72	0	0	0	0
	point15	15											
US 101 SB Onramp	point20	20	1004	95	72	2	72	3	72	0	0	0	0
	point21	21	1004	95	72	2	72	3	72	0	0	0	0
	point22	22	1004	95	72	2	72	3	72	0	0	0	0
	point23	23	1004	95	72	2	72	3	72	0	0	0	0
	point24	24											
US 101 SB Offramp	point26	26	144	95	72	2	72	3	72	0	0	0	0
	point27	27	144	95	72	2	72	3	72	0	0	0	0
	point28	28	144	95	72	2	72	3	72	0	0	0	0
	point29	29											
US 101 SB	point30	30	3005	91	105	6	105	3	105	0	0	0	0
	point31	31	3005	91	105	6	105	3	105	0	0	0	0
	point32	32	3005	91	105	6	105	3	105	0	0	0	0
	point33	33	3005	91	105	6	105	3	105	0	0	0	0
	point34	34											

US 101 SB-2	point36	36	3005	91	105	6	105	3	105	0	0	0	0
	point37	37	3005	91	105	6	105	3	105	0	0	0	0
	point38	38	3005	91	105	6	105	3	105	0	0	0	0
	point39	39	3005	91	105	6	105	3	105	0	0	0	0
	point40	40											
US 101 NB	point44	44	2838	91	105	6	105	3	105	0	0	0	0
	point45	45	2838	91	105	6	105	3	105	0	0	0	0
	point46	46	2838	91	105	6	105	3	105	0	0	0	0
	point47	47	2838	91	105	6	105	3	105	0	0	0	0
	point48	48											
US 101 NB-2	point49	49	2838	91	105	6	105	3	105	0	0	0	0
	point50	50	2838	91	105	6	105	3	105	0	0	0	0
	point51	51	2838	91	105	6	105	3	105	0	0	0	0
	point52	52	2838	91	105	6	105	3	105	0	0	0	0
	point53	53											
Los Carneros Road-N of US 101 SB Ramp	point55	55	1514	95	72	2	72	3	72	0	0	0	0
	point57	57	1514	95	72	2	72	3	72	0	0	0	0
	point17	17											

Dudek			**18 April 2014**	
M Greene			**TNM 2.5**	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	**<Project Name?>**			
RUN:	**North Willow Springs Project Goleta Ex**			
Terrain Line	**Points**			
Name	**No.**	**Coordinates (ground)**		
		X	**Y**	**Z**
		m	m	m
UPRR - 2	2	11,237,861.0	3,814,287.5	12.50
	3	11,238,395.0	3,814,333.0	8.50
UPRR	4	11,237,570.0	3,814,262.8	12.50
	5	11,237,839.0	3,814,285.0	12.50
Terrain Line5	6	11,237,881.0	3,814,269.2	11.90
	8	11,237,880.0	3,814,249.2	13.10
	9	11,237,880.0	3,814,213.2	13.10
	10	11,237,880.0	3,814,200.2	13.40
	11	11,237,878.0	3,814,185.0	13.70
	12	11,237,876.0	3,814,157.5	12.80
	13	11,237,869.0	3,814,116.0	13.40
	14	11,237,863.0	3,814,091.8	14.90
	15	11,237,860.0	3,814,081.0	14.00
	16	11,237,855.0	3,814,065.5	13.70
	17	11,237,846.0	3,814,042.5	12.30
	18	11,237,832.0	3,814,014.5	11.90
	7	11,237,818.0	3,813,990.8	10.80

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M Greene TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Project Goleta Ex

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht Perturbs			On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		m	m	$/sq m	$/cu m	m	m:m	$/m			m	m	m	m	m				
Barrier4	W	0.00	30.48	0.00				0.00	point1	1	11,237,881.0	3,814,214.2	13.10	1.80	0.00	0	0		
									point2	2	11,237,881.0	3,814,251.2	13.10	1.80	0.00	0	0		
									point3	3	11,237,882.0	3,814,269.8	11.90	1.80	0.00	0	0		
									point4	4	11,237,896.0	3,814,270.8	11.60	1.80	0.00	0	0		
									point5	5	11,237,911.0	3,814,272.5	11.00	1.80	0.00	0	0		
									point6	6	11,237,946.0	3,814,275.5	11.00	1.80	0.00	0	0		
									point7	7	11,237,963.0	3,814,277.2	10.70	1.80	0.00	0	0		
									point8	8	11,238,006.0	3,814,281.2	10.50	1.80	0.00	0	0		
									point9	9	11,238,074.0	3,814,287.5	10.10	1.80	0.00	0	0		
									point10	10	11,238,128.0	3,814,292.5	9.15	1.80	0.00	0	0		
									point11	11	11,238,170.0	3,814,296.5	8.54	1.80	0.00	0	0		
									point12	12	11,238,187.0	3,814,297.8	9.15	1.80					
Barrier5	W	0.00	30.48	0.00				0.00	point13	13	11,238,189.0	3,814,297.5	9.15	3.65	0.00	0	0		
									point14	14	11,238,194.0	3,814,297.0	9.21	3.65	0.00	0	0		
									point15	15	11,238,193.0	3,814,235.8	8.41	3.65	0.00	0	0		
									point16	16	11,238,221.0	3,814,235.0	8.50	3.65	0.00	0	0		
									point17	17	11,238,221.0	3,814,227.0	8.34	3.65	0.00	0	0		
									point18	18	11,238,188.0	3,814,229.8	8.27	3.65	0.00	0	0		
									point19	19	11,238,189.0	3,814,297.5	9.15	3.65					
Barrier6	W	0.00	30.48	0.00				0.00	point20	20	11,238,198.0	3,814,176.8	7.46	3.65	0.00	0	0		
									point21	21	11,238,200.0	3,814,224.0	8.31	3.65	0.00	0	0		
									point22	22	11,238,237.0	3,814,223.2	8.24	3.65	0.00	0	0		
									point23	23	11,238,237.0	3,814,196.0	7.69	3.65	0.00	0	0		
									point24	24	11,238,223.0	3,814,196.2	7.71	3.65	0.00	0	0		
									point25	25	11,238,223.0	3,814,175.8	7.29	3.65					
Barrier7	W	0.00	30.48	0.00				0.00	point26	26	11,237,904.0	3,814,216.0	11.57	6.70	0.00	0	0		
									point28	28	11,237,900.0	3,814,243.0	11.50	6.70	0.00	0	0		
									point29	29	11,237,905.0	3,814,243.5	11.46	6.70	0.00	0	0		
									point30	30	11,237,905.0	3,814,244.8	11.46	6.70	0.00	0	0		
									point31	31	11,237,909.0	3,814,245.0	11.42	6.70	0.00	0	0		
									point32	32	11,237,910.0	3,814,239.8	11.40	6.70	0.00	0	0		
									point33	33	11,237,913.0	3,814,240.0	11.38	6.70	0.00	0	0		
									point34	34	11,237,913.0	3,814,242.2	11.39	6.70	0.00	0	0		
									point35	35	11,237,924.0	3,814,243.0	11.27	6.70	0.00	0	0		
									point36	36	11,237,924.0	3,814,241.0	11.26	6.70	0.00	0	0		

									point37	37	11,237,928.0	3,814,241.5	11.22	6.70	0.00	0	0		
									point38	38	11,237,927.0	3,814,243.5	11.23	6.70	0.00	0	0		
									point39	39	11,237,939.0	3,814,244.8	11.11	6.70	0.00	0	0		
									point40	40	11,237,939.0	3,814,242.5	11.10	6.70	0.00	0	0		
									point41	41	11,237,941.0	3,814,242.8	11.08	6.70	0.00	0	0		
									point42	42	11,237,941.0	3,814,247.8	11.10	6.70	0.00	0	0		
									point43	43	11,237,946.0	3,814,248.2	11.05	6.70	0.00	0	0		
									point44	44	11,237,946.0	3,814,246.8	11.05	6.70	0.00	0	0		
									point45	45	11,237,949.0	3,814,247.5	11.01	6.70	0.00	0	0		
									point46	46	11,237,950.0	3,814,219.8	11.00	6.70	0.00	0	0		
									point47	47	11,237,947.0	3,814,219.2	11.00	6.70	0.00	0	0		
									point48	48	11,237,947.0	3,814,218.2	11.00	6.70	0.00	0	0		
									point49	49	11,237,943.0	3,814,218.2	11.00	6.70	0.00	0	0		
									point50	50	11,237,943.0	3,814,223.0	11.01	6.70	0.00	0	0		
									point51	51	11,237,941.0	3,814,222.8	11.03	6.70	0.00	0	0		
									point52	52	11,237,941.0	3,814,220.5	11.03	6.70	0.00	0	0		
									point53	53	11,237,914.0	3,814,218.2	11.40	6.70	0.00	0	0		
									point54	54	11,237,914.0	3,814,220.5	11.37	6.70	0.00	0	0		
									point55	55	11,237,911.0	3,814,220.2	11.41	6.70	0.00	0	0		
									point56	56	11,237,913.0	3,814,215.5	11.47	6.70	0.00	0	0		
									point57	57	11,237,908.0	3,814,214.8	11.53	6.70	0.00	0	0		
									point58	58	11,237,908.0	3,814,216.0	11.52	6.70	0.00	0	0		
									point27	27	11,237,904.0	3,814,215.5	11.57	6.70					
Barrier8	W	0.00	30.48	0.00				0.00	point59	59	11,237,960.0	3,814,248.5	10.94	6.70	0.00	0	0		
									point61	61	11,237,964.0	3,814,249.0	10.94	6.70	0.00	0	0		
									point62	62	11,237,964.0	3,814,250.2	10.92	6.70	0.00	0	0		
									point63	63	11,237,967.0	3,814,250.5	10.92	6.70	0.00	0	0		
									point64	64	11,237,969.0	3,814,245.2	10.97	6.70	0.00	0	0		
									point65	65	11,237,971.0	3,814,245.5	10.96	6.70	0.00	0	0		
									point66	66	11,237,970.0	3,814,247.8	10.96	6.70	0.00	0	0		
									point67	67	11,237,982.0	3,814,248.5	10.93	6.70	0.00	0	0		
									point68	68	11,237,982.0	3,814,246.2	10.93	6.70	0.00	0	0		
									point69	69	11,237,986.0	3,814,246.8	10.93	6.70	0.00	0	0		
									point70	70	11,237,986.0	3,814,249.0	10.91	6.70	0.00	0	0		
									point71	71	11,237,998.0	3,814,250.2	10.87	6.70	0.00	0	0		
									point72	72	11,237,998.0	3,814,247.8	10.91	6.70	0.00	0	0		
									point73	73	11,238,000.0	3,814,248.0	10.88	6.70	0.00	0	0		
									point74	74	11,238,000.0	3,814,252.8	10.80	6.70	0.00	0	0		
									point75	75	11,238,004.0	3,814,253.8	10.75	6.70	0.00	0	0		
									point76	76	11,238,004.0	3,814,252.5	10.75	6.70	0.00	0	0		
									point77	77	11,238,008.0	3,814,252.8	10.71	6.70	0.00	0	0		
									point78	78	11,238,010.0	3,814,225.2	11.27	6.70	0.00	0	0		
									point79	79	11,238,006.0	3,814,225.2	11.24	6.70	0.00	0	0		
									point80	80	11,238,006.0	3,814,223.5	11.26	6.70	0.00	0	0		
									point81	81	11,238,002.0	3,814,223.5	11.26	6.70	0.00	0	0		
									point82	82	11,238,002.0	3,814,228.2	11.21	6.70	0.00	0	0		
									point83	83	11,238,000.0	3,814,228.0	11.20	6.70	0.00	0	0		
									point84	84	11,238,000.0	3,814,226.0	11.22	6.70	0.00	0	0		
									point85	85	11,237,974.0	3,814,223.5	11.03	6.70	0.00	0	0		

									point86	86	11,237,972.0	3,814,226.0	11.01	6.70	0.00	0	0		
									point87	87	11,237,970.0	3,814,225.8	10.99	6.70	0.00	0	0		
									point88	88	11,237,971.0	3,814,220.5	11.05	6.70	0.00	0	0		
									point89	89	11,237,967.0	3,814,220.0	11.02	6.70	0.00	0	0		
									point90	90	11,237,967.0	3,814,221.5	11.00	6.70	0.00	0	0		
									point276	276	11,237,964.0	3,814,221.5	11.00	6.70	0.00	0	0		
									point277	277	11,237,961.0	3,814,247.5	11.00	6.70	0.00	0	0		
									point60	60	11,237,960.0	3,814,247.5	11.00	6.70					
Barrier9	W	0.00	30.48	0.00				0.00	point91	91	11,238,035.0	3,814,236.0	10.45	9.75	0.00	0	0		
									point94	94	11,238,035.0	3,814,241.2	10.45	9.75	0.00	0	0		
									point95	95	11,238,035.0	3,814,244.8	10.46	9.75	0.00	0	0		
									point96	96	11,238,037.0	3,814,245.0	10.42	9.75	0.00	0	0		
									point97	97	11,238,037.0	3,814,247.5	10.42	9.75	0.00	0	0		
									point98	98	11,238,035.0	3,814,247.5	10.46	9.75	0.00	0	0		
									point99	99	11,238,035.0	3,814,248.5	10.45	9.75	0.00	0	0		
									point100	100	11,238,037.0	3,814,249.0	10.42	9.75	0.00	0	0		
									point101	101	11,238,036.0	3,814,254.0	10.43	9.75	0.00	0	0		
									point102	102	11,238,038.0	3,814,254.0	10.40	9.75	0.00	0	0		
									point103	103	11,238,037.0	3,814,256.8	10.40	9.75	0.00	0	0		
									point104	104	11,238,045.0	3,814,257.5	10.23	9.75	0.00	0	0		
									point105	105	11,238,047.0	3,814,255.2	10.23	9.75	0.00	0	0		
									point106	106	11,238,049.0	3,814,255.5	10.18	9.75	0.00	0	0		
									point107	107	11,238,049.0	3,814,257.8	10.18	9.75	0.00	0	0		
									point108	108	11,238,060.0	3,814,259.0	9.97	9.75	0.00	0	0		
									point109	109	11,238,061.0	3,814,256.5	9.96	9.75	0.00	0	0		
									point110	110	11,238,066.0	3,814,257.2	9.87	9.75	0.00	0	0		
									point111	111	11,238,066.0	3,814,257.8	9.88	9.75	0.00	0	0		
									point112	112	11,238,069.0	3,814,258.0	9.78	9.75	0.00	0	0		
									point113	113	11,238,069.0	3,814,259.0	9.79	9.75	0.00	0	0		
									point114	114	11,238,074.0	3,814,259.0	9.71	9.75	0.00	0	0		
									point115	115	11,238,072.0	3,814,260.2	9.72	9.75	0.00	0	0		
									point116	116	11,238,082.0	3,814,261.0	9.43	9.75	0.00	0	0		
									point117	117	11,238,082.0	3,814,260.0	9.42	9.75	0.00	0	0		
									point118	118	11,238,085.0	3,814,260.5	9.32	9.75	0.00	0	0		
									point119	119	11,238,085.0	3,814,256.2	9.30	9.75	0.00	0	0		
									point120	120	11,238,091.0	3,814,257.2	9.13	9.75	0.00	0	0		
									point121	121	11,238,091.0	3,814,262.0	9.16	9.75	0.00	0	0		
									point122	122	11,238,097.0	3,814,262.8	8.94	9.75	0.00	0	0		
									point123	123	11,238,097.0	3,814,259.0	8.93	9.75	0.00	0	0		
									point124	124	11,238,100.0	3,814,259.5	8.84	9.75	0.00	0	0		
									point125	125	11,238,102.0	3,814,253.8	8.84	9.75	0.00	0	0		
									point126	126	11,238,100.0	3,814,253.5	8.84	9.75	0.00	0	0		
									point127	127	11,238,100.0	3,814,250.5	8.84	9.75	0.00	0	0		
									point128	128	11,238,099.0	3,814,250.5	8.84	9.75	0.00	0	0		
									point129	129	11,238,099.0	3,814,247.8	8.84	9.75	0.00	0	0		
									point130	130	11,238,102.0	3,814,248.0	8.84	9.75	0.00	0	0		
									point131	131	11,238,102.0	3,814,246.2	8.84	9.75	0.00	0	0		
									point132	132	11,238,099.0	3,814,245.8	8.84	9.75	0.00	0	0		
									point133	133	11,238,099.0	3,814,241.0	8.84	9.75	0.00	0	0		

									point134	134	11,238,098.0	3,814,241.0	8.84	9.75	0.00	0	0		
									point135	135	11,238,098.0	3,814,238.8	8.84	9.75	0.00	0	0		
									point136	136	11,238,091.0	3,814,238.0	9.05	9.75	0.00	0	0		
									point137	137	11,238,091.0	3,814,238.8	9.05	9.75	0.00	0	0		
									point138	138	11,238,087.0	3,814,238.5	9.13	9.75	0.00	0	0		
									point139	139	11,238,087.0	3,814,237.8	9.12	9.75	0.00	0	0		
									point140	140	11,238,078.0	3,814,236.5	9.35	9.75	0.00	0	0		
									point141	141	11,238,078.0	3,814,237.8	9.36	9.75	0.00	0	0		
									point142	142	11,238,075.0	3,814,237.0	9.45	9.75	0.00	0	0		
									point143	143	11,238,075.0	3,814,236.0	9.44	9.75	0.00	0	0		
									point144	144	11,238,070.0	3,814,235.8	9.56	9.75	0.00	0	0		
									point145	145	11,238,070.0	3,814,236.8	9.57	9.75	0.00	0	0		
									point146	146	11,238,064.0	3,814,236.0	9.73	9.75	0.00	0	0		
									point147	147	11,238,064.0	3,814,235.2	9.72	9.75	0.00	0	0		
									point148	148	11,238,054.0	3,814,234.2	9.95	9.75	0.00	0	0		
									point149	149	11,238,054.0	3,814,235.5	9.96	9.75	0.00	0	0		
									point150	150	11,238,045.0	3,814,234.5	10.19	9.75	0.00	0	0		
									point151	151	11,238,045.0	3,814,233.2	10.18	9.75	0.00	0	0		
									point152	152	11,238,038.0	3,814,233.0	10.36	9.75	0.00	0	0		
									point275	275	11,238,038.0	3,814,236.0	10.37	9.75					
Barrier10	W	0.00	30.48	0.00				0.00	point153	153	11,238,106.0	3,814,267.0	8.86	9.75	0.00	0	0		
									point155	155	11,238,110.0	3,814,267.0	8.88	9.75	0.00	0	0		
									point156	156	11,238,109.0	3,814,269.8	8.89	9.75	0.00	0	0		
									point157	157	11,238,116.0	3,814,270.8	8.90	9.75	0.00	0	0		
									point158	158	11,238,117.0	3,814,265.2	8.88	9.75	0.00	0	0		
									point159	159	11,238,122.0	3,814,266.0	8.84	9.75	0.00	0	0		
									point160	160	11,238,122.0	3,814,270.2	8.85	9.75	0.00	0	0		
									point161	161	11,238,125.0	3,814,270.2	8.83	9.75	0.00	0	0		
									point162	162	11,238,125.0	3,814,271.2	8.83	9.75	0.00	0	0		
									point163	163	11,238,134.0	3,814,272.0	8.76	9.75	0.00	0	0		
									point164	164	11,238,134.0	3,814,270.8	8.75	9.75	0.00	0	0		
									point165	165	11,238,138.0	3,814,271.2	8.73	9.75	0.00	0	0		
									point166	166	11,238,137.0	3,814,272.5	8.73	9.75	0.00	0	0		
									point167	167	11,238,142.0	3,814,272.8	8.69	9.75	0.00	0	0		
									point168	168	11,238,142.0	3,814,271.8	8.69	9.75	0.00	0	0		
									point169	169	11,238,148.0	3,814,272.5	8.64	9.75	0.00	0	0		
									point170	170	11,238,148.0	3,814,273.5	8.64	9.75	0.00	0	0		
									point171	171	11,238,153.0	3,814,274.0	8.61	9.75	0.00	0	0		
									point172	172	11,238,153.0	3,814,273.0	8.60	9.75	0.00	0	0		
									point173	173	11,238,161.0	3,814,274.0	8.58	9.75	0.00	0	0		
									point174	174	11,238,161.0	3,814,270.8	8.61	9.75	0.00	0	0		
									point175	175	11,238,163.0	3,814,270.8	8.61	9.75	0.00	0	0		
									point176	176	11,238,163.0	3,814,266.2	8.66	9.75	0.00	0	0		
									point177	177	11,238,165.0	3,814,266.5	8.66	9.75	0.00	0	0		
									point178	178	11,238,165.0	3,814,264.8	8.68	9.75	0.00	0	0		
									point179	179	11,238,163.0	3,814,264.8	8.68	9.75	0.00	0	0		
									point180	180	11,238,163.0	3,814,262.2	8.70	9.75	0.00	0	0		
									point181	181	11,238,166.0	3,814,262.8	8.71	9.75	0.00	0	0		
									point182	182	11,238,166.0	3,814,261.0	8.72	9.75	0.00	0	0		

									point183	183	11,238,164.0	3,814,260.8	8.72	9.75	0.00	0	0		
									point184	184	11,238,164.0	3,814,258.2	8.75	9.75	0.00	0	0		
									point185	185	11,238,167.0	3,814,258.2	8.75	9.75	0.00	0	0		
									point186	186	11,238,167.0	3,814,247.5	8.82	9.75	0.00	0	0		
									point187	187	11,238,167.0	3,814,245.8	8.81	9.75	0.00	0	0		
									point188	188	11,238,164.0	3,814,245.8	8.81	9.75	0.00	0	0		
									point189	189	11,238,164.0	3,814,242.0	8.78	9.75	0.00	0	0		
									point190	190	11,238,165.0	3,814,242.0	8.78	9.75	0.00	0	0		
									point191	191	11,238,165.0	3,814,238.5	8.76	9.75	0.00	0	0		
									point192	192	11,238,166.0	3,814,238.8	8.76	9.75	0.00	0	0		
									point193	193	11,238,166.0	3,814,237.8	8.75	9.75	0.00	0	0		
									point194	194	11,238,164.0	3,814,237.2	8.75	9.75	0.00	0	0		
									point195	195	11,238,164.0	3,814,234.2	8.72	9.75	0.00	0	0		
									point196	196	11,238,166.0	3,814,234.5	8.72	9.75	0.00	0	0		
									point197	197	11,238,167.0	3,814,233.0	8.71	9.75	0.00	0	0		
									point198	198	11,238,163.0	3,814,232.8	8.71	9.75	0.00	0	0		
									point199	199	11,238,163.0	3,814,229.8	8.69	9.75	0.00	0	0		
									point200	200	11,238,165.0	3,814,229.8	8.69	9.75	0.00	0	0		
									point201	201	11,238,165.0	3,814,227.2	8.67	9.75	0.00	0	0		
									point202	202	11,238,167.0	3,814,227.5	8.67	9.75	0.00	0	0		
									point203	203	11,238,167.0	3,814,220.8	8.66	9.75	0.00	0	0		
									point214	214	11,238,164.0	3,814,220.5	8.62	9.75	0.00	0	0		
									point215	215	11,238,164.0	3,814,217.2	8.59	9.75	0.00	0	0		
									point216	216	11,238,156.0	3,814,216.5	8.60	9.75	0.00	0	0		
									point217	217	11,238,156.0	3,814,215.5	8.59	9.75	0.00	0	0		
									point218	218	11,238,152.0	3,814,215.0	8.62	9.75	0.00	0	0		
									point219	219	11,238,152.0	3,814,216.2	8.62	9.75	0.00	0	0		
									point220	220	11,238,145.0	3,814,215.8	8.65	9.75	0.00	0	0		
									point221	221	11,238,145.0	3,814,214.5	8.65	9.75	0.00	0	0		
									point222	222	11,238,136.0	3,814,213.8	8.71	9.75	0.00	0	0		
									point223	223	11,238,136.0	3,814,214.5	8.71	9.75	0.00	0	0		
									point224	224	11,238,133.0	3,814,214.5	8.73	9.75	0.00	0	0		
									point225	225	11,238,132.0	3,814,218.5	8.73	9.75	0.00	0	0		
									point226	226	11,238,127.0	3,814,218.2	8.77	9.75	0.00	0	0		
									point227	227	11,238,127.0	3,814,213.0	8.78	9.75	0.00	0	0		
									point228	228	11,238,121.0	3,814,212.8	8.82	9.75	0.00	0	0		
									point229	229	11,238,121.0	3,814,215.5	8.81	9.75	0.00	0	0		
									point230	230	11,238,117.0	3,814,215.0	8.84	9.75	0.00	0	0		
									point231	231	11,238,116.0	3,814,220.8	8.83	9.75	0.00	0	0		
									point232	232	11,238,117.0	3,814,220.8	8.82	9.75	0.00	0	0		
									point233	233	11,238,117.0	3,814,224.0	8.82	9.75	0.00	0	0		
									point234	234	11,238,119.0	3,814,224.0	8.81	9.75	0.00	0	0		
									point235	235	11,238,117.0	3,814,226.2	8.81	9.75	0.00	0	0		
									point236	236	11,238,116.0	3,814,226.2	8.82	9.75	0.00	0	0		
									point237	237	11,238,116.0	3,814,233.0	8.82	9.75	0.00	0	0		
									point238	238	11,238,119.0	3,814,233.2	8.80	9.75	0.00	0	0		
									point239	239	11,238,119.0	3,814,236.0	8.81	9.75	0.00	0	0		
									point240	240	11,238,127.0	3,814,237.0	8.80	9.75	0.00	0	0		
									point241	241	11,238,127.0	3,814,235.8	8.79	9.75	0.00	0	0		

									point242	242	11,238,130.0	3,814,236.0	8.79	9.75	0.00	0	0		
									point243	243	11,238,130.0	3,814,237.2	8.80	9.75	0.00	0	0		
									point244	244	11,238,134.0	3,814,237.8	8.79	9.75	0.00	0	0		
									point245	245	11,238,134.0	3,814,236.8	8.79	9.75	0.00	0	0		
									point246	246	11,238,138.0	3,814,237.0	8.78	9.75	0.00	0	0		
									point247	247	11,238,138.0	3,814,238.0	8.79	9.75	0.00	0	0		
									point248	248	11,238,143.0	3,814,238.2	8.79	9.75	0.00	0	0		
									point249	249	11,238,143.0	3,814,236.8	8.77	9.75	0.00	0	0		
									point250	250	11,238,145.0	3,814,237.0	8.77	9.75	0.00	0	0		
									point251	251	11,238,145.0	3,814,238.5	8.78	9.75	0.00	0	0		
									point252	252	11,238,152.0	3,814,238.5	8.78	9.75	0.00	0	0		
									point253	253	11,238,152.0	3,814,235.0	8.75	9.75	0.00	0	0		
									point254	254	11,238,154.0	3,814,235.2	8.75	9.75	0.00	0	0		
									point255	255	11,238,154.0	3,814,242.0	8.80	9.75	0.00	0	0		
									point256	256	11,238,152.0	3,814,242.0	8.80	9.75	0.00	0	0		
									point259	259	11,238,152.0	3,814,247.5	8.84	9.75	0.00	0	0		
									point260	260	11,238,155.0	3,814,247.8	8.84	9.75	0.00	0	0		
									point261	261	11,238,154.0	3,814,254.0	8.77	9.75	0.00	0	0		
									point262	262	11,238,152.0	3,814,253.8	8.77	9.75	0.00	0	0		
									point263	263	11,238,152.0	3,814,250.2	8.81	9.75	0.00	0	0		
									point264	264	11,238,145.0	3,814,249.5	8.80	9.75	0.00	0	0		
									point265	265	11,238,145.0	3,814,250.8	8.79	9.75	0.00	0	0		
									point266	266	11,238,143.0	3,814,250.8	8.78	9.75	0.00	0	0		
									point267	267	11,238,143.0	3,814,248.5	8.80	9.75	0.00	0	0		
									point268	268	11,238,138.0	3,814,248.5	8.80	9.75	0.00	0	0		
									point269	269	11,238,138.0	3,814,249.5	8.79	9.75	0.00	0	0		
									point270	270	11,238,132.0	3,814,248.5	8.78	9.75	0.00	0	0		
									point271	271	11,238,132.0	3,814,247.8	8.79	9.75	0.00	0	0		
									point272	272	11,238,124.0	3,814,247.0	8.78	9.75	0.00	0	0		
									point204	204	11,238,124.0	3,814,247.8	8.78	9.75	0.00	0	0		
									point205	205	11,238,120.0	3,814,247.8	8.81	9.75	0.00	0	0		
									point206	206	11,238,120.0	3,814,246.5	8.80	9.75	0.00	0	0		
									point207	207	11,238,113.0	3,814,245.8	8.85	9.75	0.00	0	0		
									point208	208	11,238,113.0	3,814,248.5	8.86	9.75	0.00	0	0		
									point209	209	11,238,110.0	3,814,248.5	8.85	9.75	0.00	0	0		
									point210	210	11,238,110.0	3,814,253.5	8.86	9.75	0.00	0	0		
									point211	211	11,238,106.0	3,814,253.5	8.85	9.75	0.00	0	0		
									point212	212	11,238,106.0	3,814,255.0	8.85	9.75	0.00	0	0		
									point213	213	11,238,110.0	3,814,255.2	8.86	9.75	0.00	0	0		
									point273	273	11,238,109.0	3,814,257.5	8.86	9.75	0.00	0	0		
									point274	274	11,238,109.0	3,814,262.0	8.87	9.75	0.00	0	0		
									point154	154	11,238,109.0	3,814,266.5	8.87	9.75					
Barrier11	W	0.00	30.48	0.00				0.00	point278	278	11,238,097.0	3,814,231.8	8.84	4.60	0.00	0	0		
									point280	280	11,238,106.0	3,814,232.5	8.84	4.60	0.00	0	0		
									point281	281	11,238,106.0	3,814,224.8	8.84	4.60	0.00	0	0		
									point282	282	11,238,110.0	3,814,225.2	8.84	4.60	0.00	0	0		
									point283	283	11,238,111.0	3,814,216.5	8.84	4.60	0.00	0	0		
									point284	284	11,238,108.0	3,814,216.5	8.84	4.60	0.00	0	0		
									point285	285	11,238,108.0	3,814,210.5	8.84	4.60	0.00	0	0		

									point286	286	11,238,104.0	3,814,210.0	8.84	4.60	0.00	0	0		
									point287	287	11,238,104.0	3,814,211.8	8.84	4.60	0.00	0	0		
									point288	288	11,238,100.0	3,814,211.0	8.84	4.60	0.00	0	0		
									point289	289	11,238,100.0	3,814,213.2	8.84	4.60	0.00	0	0		
									point290	290	11,238,097.0	3,814,213.0	8.84	4.60	0.00	0	0		
									point291	291	11,238,097.0	3,814,210.0	8.84	4.60	0.00	0	0		
									point292	292	11,238,089.0	3,814,209.0	8.87	4.60	0.00	0	0		
									point293	293	11,238,088.0	3,814,214.8	8.86	4.60	0.00	0	0		
									point294	294	11,238,080.0	3,814,214.2	9.07	4.60	0.00	0	0		
									point295	295	11,238,080.0	3,814,222.0	8.98	4.60	0.00	0	0		
									point296	296	11,238,097.0	3,814,222.8	8.91	4.60	0.00	0	0		
									point279	279	11,238,097.0	3,814,231.5	8.84	4.60					
Barrier12	W	0.00	30.48	0.00				0.00	point297	297	11,237,907.0	3,814,205.8	11.64	6.70	0.00	0	0		
									point299	299	11,237,914.0	3,814,205.2	11.59	6.70	0.00	0	0		
									point300	300	11,237,914.0	3,814,204.5	11.58	6.70	0.00	0	0		
									point301	301	11,237,924.0	3,814,204.0	11.53	6.70	0.00	0	0		
									point303	303	11,237,932.0	3,814,203.8	11.50	6.70	0.00	0	0		
									point304	304	11,237,932.0	3,814,199.0	11.50	6.70	0.00	0	0		
									point305	305	11,237,933.0	3,814,199.0	11.50	6.70	0.00	0	0		
									point306	306	11,237,933.0	3,814,195.0	11.50	6.70	0.00	0	0		
									point307	307	11,237,928.0	3,814,195.2	11.50	6.70	0.00	0	0		
									point308	308	11,237,928.0	3,814,193.2	11.50	6.70	0.00	0	0		
									point309	309	11,237,930.0	3,814,193.2	11.50	6.70	0.00	0	0		
									point310	310	11,237,928.0	3,814,180.8	11.50	6.70	0.00	0	0		
									point311	311	11,237,927.0	3,814,181.0	11.50	6.70	0.00	0	0		
									point312	312	11,237,927.0	3,814,176.8	11.50	6.70	0.00	0	0		
									point313	313	11,237,928.0	3,814,176.2	11.50	6.70	0.00	0	0		
									point314	314	11,237,928.0	3,814,163.8	11.50	6.70	0.00	0	0		
									point315	315	11,237,926.0	3,814,163.8	11.50	6.70	0.00	0	0		
									point316	316	11,237,926.0	3,814,160.2	11.50	6.70	0.00	0	0		
									point317	317	11,237,928.0	3,814,160.0	11.50	6.70	0.00	0	0		
									point318	318	11,237,927.0	3,814,148.0	11.50	6.70	0.00	0	0		
									point319	319	11,237,925.0	3,814,148.2	11.50	6.70	0.00	0	0		
									point320	320	11,237,925.0	3,814,146.0	11.50	6.70	0.00	0	0		
									point321	321	11,237,930.0	3,814,146.0	11.50	6.70	0.00	0	0		
									point322	322	11,237,930.0	3,814,141.5	11.50	6.70	0.00	0	0		
									point323	323	11,237,928.0	3,814,141.5	11.50	6.70	0.00	0	0		
									point324	324	11,237,928.0	3,814,137.2	11.50	6.70	0.00	0	0		
									point325	325	11,237,922.0	3,814,137.8	11.51	6.70	0.00	0	0		
									point326	326	11,237,922.0	3,814,137.0	11.52	6.70	0.00	0	0		
									point327	327	11,237,920.0	3,814,137.0	11.52	6.70	0.00	0	0		
									point328	328	11,237,920.0	3,814,138.0	11.52	6.70	0.00	0	0		
									point329	329	11,237,911.0	3,814,138.5	11.55	6.70	0.00	0	0		
									point330	330	11,237,910.0	3,814,137.8	11.55	6.70	0.00	0	0		
									point331	331	11,237,908.0	3,814,138.0	11.56	6.70	0.00	0	0		
									point332	332	11,237,908.0	3,814,139.0	11.55	6.70	0.00	0	0		
									point333	333	11,237,902.0	3,814,139.0	11.58	6.70	0.00	0	0		
									point334	334	11,237,902.0	3,814,143.2	11.55	6.70	0.00	0	0		
									point335	335	11,237,900.0	3,814,143.2	11.56	6.70	0.00	0	0		

									point336	336	11,237,900.0	3,814,147.5	11.53	6.70	0.00	0	0		
									point337	337	11,237,907.0	3,814,147.0	11.52	6.70	0.00	0	0		
									point338	338	11,237,907.0	3,814,149.2	11.50	6.70	0.00	0	0		
									point339	339	11,237,904.0	3,814,149.5	11.51	6.70	0.00	0	0		
									point340	340	11,237,905.0	3,814,161.8	11.50	6.70	0.00	0	0		
									point341	341	11,237,907.0	3,814,161.5	11.50	6.70	0.00	0	0		
									point342	342	11,237,907.0	3,814,165.5	11.50	6.70	0.00	0	0		
									point343	343	11,237,905.0	3,814,166.0	11.50	6.70	0.00	0	0		
									point344	344	11,237,907.0	3,814,178.0	11.50	6.70	0.00	0	0		
									point345	345	11,237,908.0	3,814,178.0	11.50	6.70	0.00	0	0		
									point346	346	11,237,908.0	3,814,181.8	11.50	6.70	0.00	0	0		
									point347	347	11,237,907.0	3,814,182.5	11.50	6.70	0.00	0	0		
									point348	348	11,237,907.0	3,814,194.2	11.52	6.70	0.00	0	0		
									point349	349	11,237,909.0	3,814,194.2	11.50	6.70	0.00	0	0		
									point350	350	11,237,909.0	3,814,196.5	11.53	6.70	0.00	0	0		
									point351	351	11,237,904.0	3,814,196.8	11.55	6.70	0.00	0	0		
									point352	352	11,237,904.0	3,814,201.0	11.60	6.70	0.00	0	0		
									point298	298	11,237,905.0	3,814,201.0	11.60	6.70					
Barrier13	W	0.00	30.48	0.00				0.00	point353	353	11,238,039.0	3,814,154.0	9.14	9.75	0.00	0	0		
									point355	355	11,238,038.0	3,814,161.2	9.27	9.75	0.00	0	0		
									point356	356	11,238,041.0	3,814,161.2	9.28	9.75	0.00	0	0		
									point357	357	11,238,039.0	3,814,163.8	9.32	9.75	0.00	0	0		
									point359	359	11,238,039.0	3,814,166.2	9.35	9.75	0.00	0	0		
									point360	360	11,238,038.0	3,814,166.2	9.34	9.75	0.00	0	0		
									point361	361	11,238,038.0	3,814,172.0	9.43	9.75	0.00	0	0		
									point362	362	11,238,041.0	3,814,172.5	9.45	9.75	0.00	0	0		
									point363	363	11,238,041.0	3,814,176.0	9.50	9.75	0.00	0	0		
									point364	364	11,238,047.0	3,814,176.2	9.55	9.75	0.00	0	0		
									point365	365	11,238,048.0	3,814,171.5	9.48	9.75	0.00	0	0		
									point366	366	11,238,052.0	3,814,172.0	9.48	9.75	0.00	0	0		
									point367	367	11,238,052.0	3,814,177.0	9.58	9.75	0.00	0	0		
									point368	368	11,238,056.0	3,814,177.5	9.59	9.75	0.00	0	0		
									point369	369	11,238,056.0	3,814,176.2	9.57	9.75	0.00	0	0		
									point370	370	11,238,063.0	3,814,177.0	9.55	9.75	0.00	0	0		
									point371	371	11,238,063.0	3,814,178.0	9.57	9.75	0.00	0	0		
									point372	372	11,238,067.0	3,814,178.5	9.55	9.75	0.00	0	0		
									point373	373	11,238,067.0	3,814,176.0	9.50	9.75	0.00	0	0		
									point374	374	11,238,074.0	3,814,176.2	9.48	9.75	0.00	0	0		
									point375	375	11,238,074.0	3,814,177.5	9.50	9.75	0.00	0	0		
									point376	376	11,238,077.0	3,814,178.0	9.45	9.75	0.00	0	0		
									point377	377	11,238,077.0	3,814,178.5	9.46	9.75	0.00	0	0		
									point378	378	11,238,080.0	3,814,178.8	9.42	9.75	0.00	0	0		
									point379	379	11,238,080.0	3,814,179.8	9.43	9.75	0.00	0	0		
									point380	380	11,238,091.0	3,814,180.8	9.31	9.75	0.00	0	0		
									point381	381	11,238,091.0	3,814,179.5	9.30	9.75	0.00	0	0		
									point382	382	11,238,092.0	3,814,179.8	9.27	9.75	0.00	0	0		
									point383	383	11,238,093.0	3,814,176.0	9.23	9.75	0.00	0	0		
									point384	384	11,238,098.0	3,814,176.2	9.16	9.75	0.00	0	0		
									point385	385	11,238,098.0	3,814,181.0	9.21	9.75	0.00	0	0		

									point386	386	11,238,104.0	3,814,181.8	9.13	9.75	0.00	0	0		
									point387	387	11,238,105.0	3,814,178.5	9.10	9.75	0.00	0	0		
									point388	388	11,238,108.0	3,814,179.0	9.06	9.75	0.00	0	0		
									point389	389	11,238,109.0	3,814,173.8	9.01	9.75	0.00	0	0		
									point390	390	11,238,106.0	3,814,173.2	9.01	9.75	0.00	0	0		
									point391	391	11,238,109.0	3,814,158.0	8.86	9.75	0.00	0	0		
									point392	392	11,238,043.0	3,814,151.8	9.08	9.75	0.00	0	0		
									point354	354	11,238,042.0	3,814,154.5	9.14	9.75					
Barrier14	W	0.00	30.48	0.00				0.00	point393	393	11,237,904.0	3,814,078.5	7.69	9.75	0.00	0	0		
									point395	395	11,237,910.0	3,814,086.2	7.65	9.75	0.00	0	0		
									point396	396	11,237,913.0	3,814,084.2	7.65	9.75	0.00	0	0		
									point397	397	11,237,913.0	3,814,085.5	7.65	9.75	0.00	0	0		
									point398	398	11,237,913.0	3,814,086.2	7.67	9.75	0.00	0	0		
									point399	399	11,237,917.0	3,814,092.8	7.64	9.75	0.00	0	0		
									point400	400	11,237,925.0	3,814,086.8	7.57	9.75	0.00	0	0		
									point401	401	11,237,926.0	3,814,088.5	7.59	9.75	0.00	0	0		
									point403	403	11,237,928.0	3,814,086.2	7.59	9.75	0.00	0	0		
									point404	404	11,237,937.0	3,814,080.0	7.58	9.75	0.00	0	0		
									point405	405	11,237,936.0	3,814,079.2	7.57	9.75	0.00	0	0		
									point406	406	11,237,938.0	3,814,077.0	7.57	9.75	0.00	0	0		
									point407	407	11,237,939.0	3,814,077.5	7.58	9.75	0.00	0	0		
									point408	408	11,237,942.0	3,814,074.8	7.57	9.75	0.00	0	0		
									point409	409	11,237,941.0	3,814,073.8	7.56	9.75	0.00	0	0		
									point410	410	11,237,946.0	3,814,069.8	7.56	9.75	0.00	0	0		
									point411	411	11,237,947.0	3,814,070.5	7.57	9.75	0.00	0	0		
									point412	412	11,237,949.0	3,814,068.5	7.56	9.75	0.00	0	0		
									point413	413	11,237,950.0	3,814,069.5	7.57	9.75	0.00	0	0		
									point414	414	11,237,956.0	3,814,063.2	7.58	9.75	0.00	0	0		
									point415	415	11,237,956.0	3,814,062.2	7.58	9.75	0.00	0	0		
									point416	416	11,237,958.0	3,814,060.5	7.58	9.75	0.00	0	0		
									point417	417	11,237,955.0	3,814,056.5	7.55	9.75	0.00	0	0		
									point418	418	11,237,956.0	3,814,055.2	7.55	9.75	0.00	0	0		
									point419	419	11,237,959.0	3,814,058.0	7.57	9.75	0.00	0	0		
									point420	420	11,237,966.0	3,814,052.2	7.57	9.75	0.00	0	0		
									point421	421	11,237,964.0	3,814,050.0	7.54	9.75	0.00	0	0		
									point422	422	11,237,966.0	3,814,048.2	7.53	9.75	0.00	0	0		
									point423	423	11,237,921.0	3,813,990.2	6.81	9.75	0.00	0	0		
									point424	424	11,237,913.0	3,813,997.2	6.88	9.75	0.00	0	0		
									point425	425	11,237,914.0	3,813,999.2	6.88	9.75	0.00	0	0		
									point426	426	11,237,913.0	3,814,000.0	6.90	9.75	0.00	0	0		
									point427	427	11,237,911.0	3,813,997.8	6.90	9.75	0.00	0	0		
									point428	428	11,237,904.0	3,814,004.2	7.02	9.75	0.00	0	0		
									point429	429	11,237,907.0	3,814,006.5	7.02	9.75	0.00	0	0		
									point430	430	11,237,904.0	3,814,007.2	7.04	9.75	0.00	0	0		
									point431	431	11,237,908.0	3,814,011.2	7.03	9.75	0.00	0	0		
									point432	432	11,237,909.0	3,814,009.8	7.01	9.75	0.00	0	0		
									point433	433	11,237,911.0	3,814,012.0	7.01	9.75	0.00	0	0		
									point434	434	11,237,910.0	3,814,012.8	7.03	9.75	0.00	0	0		
									point435	435	11,237,913.0	3,814,015.2	7.03	9.75	0.00	0	0		

									point436	436	11,237,911.0	3,814,016.0	7.04	9.75	0.00	0	0		
									point437	437	11,237,917.0	3,814,023.8	7.06	9.75	0.00	0	0		
									point438	438	11,237,917.0	3,814,022.8	7.04	9.75	0.00	0	0		
									point439	439	11,237,922.0	3,814,027.0	7.09	9.75	0.00	0	0		
									point440	440	11,237,920.0	3,814,028.0	7.10	9.75	0.00	0	0		
									point441	441	11,237,926.0	3,814,036.2	7.22	9.75	0.00	0	0		
									point442	442	11,237,928.0	3,814,035.2	7.21	9.75	0.00	0	0		
									point443	443	11,237,931.0	3,814,039.2	7.27	9.75	0.00	0	0		
									point444	444	11,237,928.0	3,814,040.5	7.28	9.75	0.00	0	0		
									point445	445	11,237,932.0	3,814,044.5	7.34	9.75	0.00	0	0		
									point446	446	11,237,933.0	3,814,044.0	7.34	9.75	0.00	0	0		
									point447	447	11,237,936.0	3,814,047.5	7.39	9.75	0.00	0	0		
									point448	448	11,237,937.0	3,814,045.5	7.37	9.75	0.00	0	0		
									point449	449	11,237,938.0	3,814,046.5	7.39	9.75	0.00	0	0		
									point450	450	11,237,939.0	3,814,046.0	7.38	9.75	0.00	0	0		
									point451	451	11,237,941.0	3,814,049.2	7.43	9.75	0.00	0	0		
									point452	452	11,237,942.0	3,814,049.5	7.44	9.75	0.00	0	0		
									point453	453	11,237,942.0	3,814,050.2	7.44	9.75	0.00	0	0		
									point454	454	11,237,942.0	3,814,052.0	7.46	9.75	0.00	0	0		
									point455	455	11,237,939.0	3,814,053.5	7.46	9.75	0.00	0	0		
									point456	456	11,237,938.0	3,814,053.2	7.46	9.75	0.00	0	0		
									point459	459	11,237,935.0	3,814,055.2	7.44	9.75	0.00	0	0		
									point460	460	11,237,933.0	3,814,053.5	7.43	9.75	0.00	0	0		
									point461	461	11,237,928.0	3,814,056.5	7.42	9.75	0.00	0	0		
									point462	462	11,237,930.0	3,814,057.2	7.43	9.75	0.00	0	0		
									point463	463	11,237,928.0	3,814,058.8	7.43	9.75	0.00	0	0		
									point464	464	11,237,927.0	3,814,057.5	7.42	9.75	0.00	0	0		
									point465	465	11,237,919.0	3,814,064.0	7.42	9.75	0.00	0	0		
									point466	466	11,237,920.0	3,814,064.8	7.43	9.75	0.00	0	0		
									point467	467	11,237,916.0	3,814,067.8	7.43	9.75	0.00	0	0		
									point468	468	11,237,915.0	3,814,067.2	7.44	9.75	0.00	0	0		
									point469	469	11,237,914.0	3,814,068.5	7.47	9.75	0.00	0	0		
									point470	470	11,237,916.0	3,814,070.0	7.45	9.75	0.00	0	0		
									point471	471	11,237,914.0	3,814,071.8	7.50	9.75	0.00	0	0		
									point472	472	11,237,914.0	3,814,071.0	7.50	9.75	0.00	0	0		
									point474	474	11,237,910.0	3,814,074.8	7.60	9.75	0.00	0	0		
									point475	475	11,237,908.0	3,814,076.5	7.66	9.75	0.00	0	0		
									point478	478	11,237,907.0	3,814,074.8	7.68	9.75	0.00	0	0		
									point479	479	11,237,907.0	3,814,077.0	7.68	9.75	0.00	0	0		
									point394	394	11,237,904.0	3,814,078.5	7.69	9.75					
Barrier15	W	0.00	30.48	0.00				0.00	point480	480	11,237,882.0	3,814,007.5	7.28	4.60	0.00	0	0		
									point482	482	11,237,891.0	3,814,025.5	7.31	4.60	0.00	0	0		
									point483	483	11,237,893.0	3,814,025.0	7.28	4.60	0.00	0	0		
									point484	484	11,237,894.0	3,814,025.5	7.28	4.60	0.00	0	0		
									point485	485	11,237,896.0	3,814,024.0	7.25	4.60	0.00	0	0		
									point486	486	11,237,896.0	3,814,023.2	7.25	4.60	0.00	0	0		
									point487	487	11,237,897.0	3,814,022.5	7.22	4.60	0.00	0	0		
									point488	488	11,237,900.0	3,814,021.0	7.19	4.60	0.00	0	0		
									point489	489	11,237,896.0	3,814,013.5	7.17	4.60	0.00	0	0		

									point490	490	11,237,899.0	3,814,011.8	7.13	4.60	0.00	0	0		
									point491	491	11,237,896.0	3,814,005.5	7.11	4.60	0.00	0	0		
									point492	492	11,237,898.0	3,814,004.2	7.08	4.60	0.00	0	0		
									point493	493	11,237,896.0	3,813,999.5	7.15	4.60	0.00	0	0		
									point494	494	11,237,893.0	3,814,000.8	7.17	4.60	0.00	0	0		
									point495	495	11,237,893.0	3,814,000.0	7.18	4.60	0.00	0	0		
									point496	496	11,237,891.0	3,814,001.0	7.19	4.60	0.00	0	0		
									point497	497	11,237,889.0	3,813,999.2	7.23	4.60	0.00	0	0		
									point498	498	11,237,888.0	3,814,001.0	7.25	4.60	0.00	0	0		
									point499	499	11,237,888.0	3,814,002.8	7.23	4.60	0.00	0	0		
									point501	501	11,237,887.0	3,814,003.8	7.23	4.60	0.00	0	0		
									point502	502	11,237,885.0	3,814,006.0	7.27	4.60	0.00	0	0		
									point481	481	11,237,885.0	3,814,007.0	7.25	4.60					
Barrier16	W	0.00	30.48	0.00				0.00	point503	503	11,237,835.0	3,813,995.5	7.48	9.75	0.00	0	0		
									point509	509	11,237,825.0	3,813,981.5	7.45	9.75	0.00	0	0		
									point505	505	11,237,875.0	3,813,944.8	7.41	9.75	0.00	0	0		
									point506	506	11,237,898.0	3,813,973.0	7.33	9.75	0.00	0	0		
									point507	507	11,237,883.0	3,813,983.5	7.31	9.75	0.00	0	0		
									point508	508	11,237,872.0	3,813,968.5	7.42	9.75					

Dudek 18 April 2014
M Greene TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Project Goleta Ex

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			m	m	m	m	dBA	dBA	dB	dB	
Receiver 1	1	1	11,238,159.0	3,814,274.5	10.07	1.50	0.00	66	10.0	8.0	Y
Receiver2	2	1	11,238,145.0	3,814,273.0	10.17	1.50	0.00	66	10.0	8.0	Y
Receiver3	3	1	11,238,128.0	3,814,272.5	10.30	1.50	0.00	66	10.0	8.0	Y
Receiver4	4	1	11,238,113.0	3,814,270.8	10.41	1.50	0.00	66	10.0	8.0	Y
Receiver5	5	1	11,238,106.0	3,814,263.8	10.35	1.50	0.00	66	10.0	8.0	Y
Receiver6	6	1	11,238,108.0	3,814,258.8	10.36	1.50	0.00	66	10.0	8.0	Y
Receiver7	7	1	11,238,109.0	3,814,250.5	10.35	1.50	0.00	66	10.0	8.0	Y
Receiver8	8	1	11,238,117.0	3,814,245.8	10.32	1.50	0.00	66	10.0	8.0	Y
Receiver9	9	1	11,238,130.0	3,814,247.5	10.29	1.50	0.00	66	10.0	8.0	Y
Receiver10	10	1	11,238,141.0	3,814,238.5	10.29	1.50	0.00	66	10.0	8.0	Y
Receiver11	11	1	11,238,133.0	3,814,238.0	10.30	1.50	0.00	66	10.0	8.0	Y
Receiver12	12	1	11,238,122.0	3,814,237.0	10.31	1.50	0.00	66	10.0	8.0	Y
Receiver13	13	1	11,238,115.0	3,814,231.2	10.33	1.50	0.00	66	10.0	8.0	Y
Receiver14	14	1	11,238,116.0	3,814,222.0	10.32	1.50	0.00	66	10.0	8.0	Y
Receiver15	15	1	11,238,124.0	3,814,211.8	10.30	1.50	0.00	66	10.0	8.0	Y
Receiver16	16	1	11,238,169.0	3,814,225.2	10.17	1.50	0.00	66	10.0	8.0	Y
Receiver17	17	1	11,238,166.0	3,814,240.8	10.27	1.50	0.00	66	10.0	8.0	Y
Receiver18	18	1	11,238,169.0	3,814,252.8	10.31	1.50	0.00	66	10.0	8.0	Y
Receiver19	19	1	11,238,164.0	3,814,267.8	10.15	1.50	0.00	66	10.0	8.0	Y
Receiver20	20	1	11,238,095.0	3,814,263.0	10.46	1.50	0.00	66	10.0	8.0	Y
Receiver21	21	1	11,238,091.0	3,814,262.8	10.62	1.50	0.00	66	10.0	8.0	Y
Receiver22	22	1	11,238,083.0	3,814,261.0	10.88	1.50	0.00	66	10.0	8.0	Y

Receiver23	23	1	11,238,077.0	3,814,261.0	11.08	1.50	0.00	66	10.0	8.0	Y
Receiver24	24	1	11,238,071.0	3,814,259.5	11.26	1.50	0.00	66	10.0	8.0	Y
Receiver25	25	1	11,238,064.0	3,814,257.5	11.41	1.50	0.00	66	10.0	8.0	Y
Receiver26	26	1	11,238,059.0	3,814,259.2	11.50	1.50	0.00	66	10.0	8.0	Y
Receiver27	27	1	11,238,052.0	3,814,258.2	11.64	1.50	0.00	66	10.0	8.0	Y
Receiver28	28	1	11,238,045.0	3,814,258.0	11.76	1.50	0.00	66	10.0	8.0	Y
Receiver29	29	1	11,238,039.0	3,814,257.5	11.87	1.50	0.00	66	10.0	8.0	Y
Receiver30	30	1	11,238,036.0	3,814,252.8	11.93	1.50	0.00	66	10.0	8.0	Y
Receiver31	31	1	11,238,036.0	3,814,245.8	11.93	1.50	0.00	66	10.0	8.0	Y
Receiver32	32	1	11,238,033.0	3,814,242.2	11.97	1.50	0.00	66	10.0	8.0	Y
Receiver33	33	1	11,238,033.0	3,814,238.2	11.97	1.50	0.00	66	10.0	8.0	Y
Receiver34	34	1	11,238,037.0	3,814,235.5	11.90	1.50	0.00	66	10.0	8.0	Y
Receiver35	35	1	11,238,042.0	3,814,233.0	11.77	1.50	0.00	66	10.0	8.0	Y
Receiver36	36	1	11,238,052.0	3,814,235.0	11.55	1.50	0.00	66	10.0	8.0	Y
Receiver37	37	1	11,238,074.0	3,814,235.8	10.98	1.50	0.00	66	10.0	8.0	Y
Receiver38	38	1	11,238,092.0	3,814,237.8	10.49	1.50	0.00	66	10.0	8.0	Y
Receiver39	39	1	11,238,097.0	3,814,238.2	10.35	1.50	0.00	66	10.0	8.0	Y
Receiver40	40	1	11,238,100.0	3,814,243.0	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver41	41	1	11,238,100.0	3,814,249.2	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver42	42	1	11,238,102.0	3,814,252.5	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver43	43	1	11,238,102.0	3,814,257.5	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver44	44	1	11,238,006.0	3,814,253.2	12.23	1.50	0.00	66	10.0	8.0	Y
Receiver45	45	1	11,238,002.0	3,814,253.8	12.28	1.50	0.00	66	10.0	8.0	Y
Receiver46	46	1	11,237,996.0	3,814,250.2	12.38	1.50	0.00	66	10.0	8.0	Y
Receiver47	47	1	11,237,988.0	3,814,249.5	12.42	1.50	0.00	66	10.0	8.0	Y
Receiver48	48	1	11,237,985.0	3,814,247.5	12.42	1.50	0.00	66	10.0	8.0	Y
Receiver49	49	1	11,237,980.0	3,814,249.0	12.43	1.50	0.00	66	10.0	8.0	Y
Receiver50	50	1	11,237,972.0	3,814,248.2	12.45	1.50	0.00	66	10.0	8.0	Y
Receiver51	51	1	11,237,967.0	3,814,250.8	12.41	1.50	0.00	66	10.0	8.0	Y
Receiver52	52	1	11,237,963.0	3,814,249.0	12.43	1.50	0.00	66	10.0	8.0	Y
Receiver53	53	1	11,237,960.0	3,814,244.2	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver54	54	1	11,237,961.0	3,814,232.5	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver55	55	1	11,237,963.0	3,814,224.5	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver56	56	1	11,237,965.0	3,814,220.8	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver57	57	1	11,237,969.0	3,814,220.0	12.53	1.50	0.00	66	10.0	8.0	Y
Receiver58	58	1	11,237,985.0	3,814,224.2	12.62	1.50	0.00	66	10.0	8.0	Y

Receiver59	59	1	11,238,004.0	3,814,222.5	12.77	1.50	0.00	66	10.0	8.0	Y
Receiver60	60	1	11,238,009.0	3,814,224.5	12.77	1.50	0.00	66	10.0	8.0	Y
Receiver61	61	1	11,238,010.0	3,814,229.5	12.68	1.50	0.00	66	10.0	8.0	Y
Receiver62	62	1	11,238,009.0	3,814,238.0	12.49	1.50	0.00	66	10.0	8.0	Y
Receiver63	63	1	11,238,008.0	3,814,249.2	12.26	1.50	0.00	66	10.0	8.0	Y
Receiver64	64	1	11,237,950.0	3,814,242.0	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver65	65	1	11,237,947.0	3,814,247.8	12.52	1.50	0.00	66	10.0	8.0	Y
Receiver66	66	1	11,237,942.0	3,814,248.5	12.58	1.50	0.00	66	10.0	8.0	Y
Receiver67	67	1	11,237,937.0	3,814,245.2	12.62	1.50	0.00	66	10.0	8.0	Y
Receiver68	68	1	11,237,928.0	3,814,244.2	12.71	1.50	0.00	66	10.0	8.0	Y
Receiver69	69	1	11,237,925.0	3,814,242.0	12.75	1.50	0.00	66	10.0	8.0	Y
Receiver70	70	1	11,237,921.0	3,814,244.0	12.79	1.50	0.00	66	10.0	8.0	Y
Receiver71	71	1	11,237,913.0	3,814,243.0	12.87	1.50	0.00	66	10.0	8.0	Y
Receiver72	72	1	11,237,908.0	3,814,245.2	12.93	1.50	0.00	66	10.0	8.0	Y
Receiver73	73	1	11,237,903.0	3,814,243.8	12.98	1.50	0.00	66	10.0	8.0	Y
Receiver74	74	1	11,237,900.0	3,814,239.2	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver75	75	1	11,237,902.0	3,814,232.8	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver76	76	1	11,237,903.0	3,814,226.8	12.98	1.50	0.00	66	10.0	8.0	Y
Receiver77	77	1	11,237,903.0	3,814,220.2	13.03	1.50	0.00	66	10.0	8.0	Y
Receiver78	78	1	11,237,907.0	3,814,215.5	13.05	1.50	0.00	66	10.0	8.0	Y
Receiver79	79	1	11,237,910.0	3,814,214.8	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver80	80	1	11,237,915.0	3,814,218.2	12.88	1.50	0.00	66	10.0	8.0	Y
Receiver81	81	1	11,237,924.0	3,814,219.0	12.75	1.50	0.00	66	10.0	8.0	Y
Receiver82	82	1	11,237,931.0	3,814,219.8	12.64	1.50	0.00	66	10.0	8.0	Y
Receiver83	83	1	11,237,938.0	3,814,220.2	12.55	1.50	0.00	66	10.0	8.0	Y
Receiver84	84	1	11,237,944.0	3,814,216.5	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver85	85	1	11,237,949.0	3,814,219.2	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver86	86	1	11,237,950.0	3,814,224.8	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver87	87	1	11,237,950.0	3,814,235.2	12.50	1.50	0.00	66	10.0	8.0	Y
Receiver88	88	1	11,237,930.0	3,814,204.0	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver89	89	1	11,237,924.0	3,814,205.8	13.04	1.50	0.00	66	10.0	8.0	Y
Receiver90	90	1	11,237,914.0	3,814,206.8	13.10	1.50	0.00	66	10.0	8.0	Y
Receiver91	91	1	11,237,907.0	3,814,206.0	13.14	1.50	0.00	66	10.0	8.0	Y
Receiver92	92	1	11,237,903.0	3,814,198.5	13.08	1.50	0.00	66	10.0	8.0	Y
Receiver93	93	1	11,237,905.0	3,814,190.5	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver94	94	1	11,237,905.0	3,814,184.2	13.00	1.50	0.00	66	10.0	8.0	Y

Receiver95	95	1	11,237,905.0	3,814,175.2	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver96	96	1	11,237,905.0	3,814,168.2	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver97	97	1	11,237,904.0	3,814,159.2	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver98	98	1	11,237,904.0	3,814,152.2	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver99	99	1	11,237,899.0	3,814,146.2	13.04	1.50	0.00	66	10.0	8.0	Y
Receiver100	100	1	11,237,900.0	3,814,140.0	13.07	1.50	0.00	66	10.0	8.0	Y
Receiver101	101	1	11,237,905.0	3,814,138.0	13.07	1.50	0.00	66	10.0	8.0	Y
Receiver102	102	1	11,237,916.0	3,814,137.8	13.03	1.50	0.00	66	10.0	8.0	Y
Receiver103	103	1	11,237,926.0	3,814,137.0	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver104	104	1	11,237,931.0	3,814,142.8	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver105	105	1	11,237,930.0	3,814,169.2	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver106	106	1	11,237,930.0	3,814,185.8	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver107	107	1	11,237,933.0	3,814,200.5	13.00	1.50	0.00	66	10.0	8.0	Y
Receiver108	108	1	11,237,917.0	3,814,093.8	9.14	1.50	0.00	66	10.0	8.0	Y
Receiver109	109	1	11,237,913.0	3,814,087.0	9.16	1.50	0.00	66	10.0	8.0	Y
Receiver110	110	1	11,237,908.0	3,814,085.0	9.15	1.50	0.00	66	10.0	8.0	Y
Receiver111	111	1	11,237,904.0	3,814,080.2	9.17	1.50	0.00	66	10.0	8.0	Y
Receiver112	112	1	11,237,905.0	3,814,076.5	9.20	1.50	0.00	66	10.0	8.0	Y
Receiver113	113	1	11,237,911.0	3,814,071.5	9.05	1.50	0.00	66	10.0	8.0	Y
Receiver114	114	1	11,237,917.0	3,814,065.5	8.92	1.50	0.00	66	10.0	8.0	Y
Receiver115	115	1	11,237,925.0	3,814,058.0	8.91	1.50	0.00	66	10.0	8.0	Y
Receiver116	116	1	11,237,931.0	3,814,054.2	8.92	1.50	0.00	66	10.0	8.0	Y
Receiver117	117	1	11,237,936.0	3,814,053.0	8.94	1.50	0.00	66	10.0	8.0	Y
Receiver118	118	1	11,237,935.0	3,814,046.8	8.87	1.50	0.00	66	10.0	8.0	Y
Receiver119	119	1	11,237,928.0	3,814,041.8	8.79	1.50	0.00	66	10.0	8.0	Y
Receiver121	121	1	11,237,924.0	3,814,033.5	8.67	1.50	0.00	66	10.0	8.0	Y
Receiver122	122	1	11,237,915.0	3,814,023.2	8.57	1.50	0.00	66	10.0	8.0	Y
Receiver123	123	1	11,237,910.0	3,814,016.2	8.56	1.50	0.00	66	10.0	8.0	Y
Receiver124	124	1	11,237,905.0	3,814,008.5	8.54	1.50	0.00	66	10.0	8.0	Y
Receiver125	125	1	11,237,907.0	3,814,001.0	8.48	1.50	0.00	66	10.0	8.0	Y
Receiver126	126	1	11,237,909.0	3,813,999.0	8.43	1.50	0.00	66	10.0	8.0	Y
Receiver127	127	1	11,237,914.0	3,813,994.0	8.38	1.50	0.00	66	10.0	8.0	Y
Receiver128	128	1	11,237,917.0	3,813,991.8	8.34	1.50	0.00	66	10.0	8.0	Y
Receiver129	129	1	11,237,925.0	3,813,995.5	8.25	1.50	0.00	66	10.0	8.0	Y
Receiver130	130	1	11,237,936.0	3,814,009.0	8.45	1.50	0.00	66	10.0	8.0	Y
Receiver131	131	1	11,237,948.0	3,814,025.0	8.68	1.50	0.00	66	10.0	8.0	Y

Receiver132	132	1	11,237,961.0	3,814,041.0	8.92	1.50	0.00	66	10.0	8.0	Y
Receiver133	133	1	11,237,963.0	3,814,056.2	9.08	1.50	0.00	66	10.0	8.0	Y
Receiver134	134	1	11,237,950.0	3,814,068.8	9.07	1.50	0.00	66	10.0	8.0	Y
Receiver135	135	1	11,237,956.0	3,814,064.8	9.08	1.50	0.00	66	10.0	8.0	Y
Receiver136	136	1	11,237,941.0	3,814,076.0	9.08	1.50	0.00	66	10.0	8.0	Y
Receiver137	137	1	11,237,936.0	3,814,082.0	9.09	1.50	0.00	66	10.0	8.0	Y
Receiver138	138	1	11,237,927.0	3,814,088.2	9.09	1.50	0.00	66	10.0	8.0	Y
Receiver139	139	1	11,237,889.0	3,814,025.8	8.81	1.50	0.00	66	10.0	8.0	Y
Receiver140	140	1	11,237,883.0	3,814,010.8	8.77	1.50	0.00	66	10.0	8.0	Y
Receiver141	141	1	11,237,902.0	3,814,017.5	8.64	1.50	0.00	66	10.0	8.0	Y
Receiver142	142	1	11,237,900.0	3,814,035.8	8.80	1.50	0.00	66	10.0	8.0	Y
Receiver143	143	1	11,237,904.0	3,814,052.5	8.88	1.50	0.00	66	10.0	8.0	Y
Receiver144	144	1	11,237,887.0	3,814,002.8	8.75	1.50	0.00	66	10.0	8.0	Y
Receiver145	145	1	11,238,103.0	3,814,181.8	10.66	1.50	0.00	66	10.0	8.0	Y
Receiver146	146	1	11,238,087.0	3,814,180.8	10.85	1.50	0.00	66	10.0	8.0	Y
Receiver147	147	1	11,238,055.0	3,814,178.0	11.10	1.50	0.00	66	10.0	8.0	Y
Receiver148	148	1	11,238,037.0	3,814,169.0	10.88	1.50	0.00	66	10.0	8.0	Y
Receiver149	149	1	11,238,038.0	3,814,158.0	10.72	1.50	0.00	66	10.0	8.0	Y
Receiver150	150	1	11,238,052.0	3,814,151.8	10.57	1.50	0.00	66	10.0	8.0	Y
Receiver151	151	1	11,238,056.0	3,814,218.2	11.20	1.50	0.00	66	10.0	8.0	Y
Receiver152	152	1	11,238,091.0	3,814,225.2	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver153	153	1	11,238,095.0	3,814,229.0	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver154	154	1	11,238,105.0	3,814,233.2	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver155	155	1	11,238,098.0	3,814,232.8	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver156	156	1	11,238,078.0	3,814,220.5	10.50	1.50	0.00	66	10.0	8.0	Y
Receiver157	157	1	11,238,078.0	3,814,216.0	10.57	1.50	0.00	66	10.0	8.0	Y
Receiver158	158	1	11,238,085.0	3,814,213.8	10.44	1.50	0.00	66	10.0	8.0	Y
Receiver159	159	1	11,238,091.0	3,814,209.0	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver160	160	1	11,238,105.0	3,814,210.0	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver161	161	1	11,238,110.0	3,814,214.2	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver162	162	1	11,238,111.0	3,814,220.8	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver163	163	1	11,238,108.0	3,814,228.8	10.34	1.50	0.00	66	10.0	8.0	Y
Receiver164	164	1	11,237,987.0	3,814,210.2	12.32	1.50	0.00	66	10.0	8.0	Y
Receiver165	165	1	11,237,958.0	3,814,208.8	12.47	1.50	0.00	66	10.0	8.0	Y
Receiver166	166	1	11,237,953.0	3,814,188.0	12.45	1.50	0.00	66	10.0	8.0	Y
Receiver167	167	1	11,237,996.0	3,814,185.0	11.44	1.50	0.00	66	10.0	8.0	Y

Receiver168	168	1	11,238,006.0	3,814,175.2	11.18	1.50	0.00	66	10.0	8.0	Y
Receiver169	169	1	11,237,988.0	3,814,166.5	11.21	1.50	0.00	66	10.0	8.0	Y
Receiver170	170	1	11,237,974.0	3,814,133.8	12.49	1.50	0.00	66	10.0	8.0	Y
Receiver171	171	1	11,237,992.0	3,814,117.5	12.44	1.50	0.00	66	10.0	8.0	Y
Receiver172	172	1	11,237,833.0	3,813,996.5	8.83	1.50	0.00	66	10.0	8.0	Y
Receiver173	173	1	11,237,824.0	3,813,983.8	8.91	1.50	0.00	66	10.0	8.0	Y
Receiver174	174	1	11,237,833.0	3,813,973.2	9.05	1.50	0.00	66	10.0	8.0	Y
Receiver175	175	1	11,237,867.0	3,813,948.0	9.00	1.50	0.00	66	10.0	8.0	Y
Receiver176	176	1	11,237,883.0	3,813,953.8	8.88	1.50	0.00	66	10.0	8.0	Y
Receiver177	177	1	11,237,889.0	3,813,980.0	8.81	1.50	0.00	66	10.0	8.0	Y
Receiver178	178	1	11,237,880.0	3,813,982.0	8.82	1.50	0.00	66	10.0	8.0	Y
Receiver179	179	1	11,237,874.0	3,813,973.0	8.89	1.50	0.00	66	10.0	8.0	Y
Receiver180	180	1	11,237,861.0	3,813,977.2	8.90	1.50	0.00	66	10.0	8.0	Y
Receiver181	181	1	11,237,844.0	3,813,990.5	8.88	1.50	0.00	66	10.0	8.0	Y
Receiver182	182	1	11,238,038.0	3,814,220.0	11.73	1.50	0.00	66	10.0	8.0	Y
ST_LT1	184	1	11,238,078.0	3,814,278.5	10.87	1.50	0.00	66	10.0	8.0	Y

Dudek
M Greene
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: <Project Name?>
RUN: North Willow Springs Project Goleta Ex
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 20 deg C, 50% RH

18 April 2014
TNM 2.5
Calculated with TNM 2.5

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receiver 1	1	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
Receiver2	2	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
Receiver3	3	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
Receiver4	4	1	0.0	60.4	66	60.4	10	----	60.4	0.0	8	-8.0
Receiver5	5	1	0.0	54.7	66	54.7	10	----	54.7	0.0	8	-8.0
Receiver6	6	1	0.0	52.9	66	52.9	10	----	52.9	0.0	8	-8.0
Receiver7	7	1	0.0	44.0	66	44.0	10	----	44.0	0.0	8	-8.0
Receiver8	8	1	0.0	42.6	66	42.6	10	----	42.6	0.0	8	-8.0
Receiver9	9	1	0.0	43.6	66	43.6	10	----	43.6	0.0	8	-8.0
Receiver10	10	1	0.0	44.4	66	44.4	10	----	44.4	0.0	8	-8.0
Receiver11	11	1	0.0	44.3	66	44.3	10	----	44.3	0.0	8	-8.0
Receiver12	12	1	0.0	45.0	66	45.0	10	----	45.0	0.0	8	-8.0
Receiver13	13	1	0.0	47.0	66	47.0	10	----	47.0	0.0	8	-8.0
Receiver14	14	1	0.0	46.3	66	46.3	10	----	46.3	0.0	8	-8.0
Receiver15	15	1	0.0	43.5	66	43.5	10	----	43.5	0.0	8	-8.0
Receiver16	16	1	0.0	54.9	66	54.9	10	----	54.9	0.0	8	-8.0
Receiver17	17	1	0.0	52.8	66	52.8	10	----	52.8	0.0	8	-8.0
Receiver18	18	1	0.0	56.9	66	56.9	10	----	56.9	0.0	8	-8.0
Receiver19	19	1	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0
Receiver20	20	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
Receiver21	21	1	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0
Receiver22	22	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
Receiver23	23	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
Receiver24	24	1	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0

Receiver25	25	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
Receiver26	26	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
Receiver27	27	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
Receiver28	28	1	0.0	60.4	66	60.4	10	----	60.4	0.0	8	-8.0
Receiver29	29	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
Receiver30	30	1	0.0	54.8	66	54.8	10	----	54.8	0.0	8	-8.0
Receiver31	31	1	0.0	51.6	66	51.6	10	----	51.6	0.0	8	-8.0
Receiver32	32	1	0.0	54.7	66	54.7	10	----	54.7	0.0	8	-8.0
Receiver33	33	1	0.0	54.2	66	54.2	10	----	54.2	0.0	8	-8.0
Receiver34	34	1	0.0	49.2	66	49.2	10	----	49.2	0.0	8	-8.0
Receiver35	35	1	0.0	45.6	66	45.6	10	----	45.6	0.0	8	-8.0
Receiver36	36	1	0.0	44.5	66	44.5	10	----	44.5	0.0	8	-8.0
Receiver37	37	1	0.0	45.0	66	45.0	10	----	45.0	0.0	8	-8.0
Receiver38	38	1	0.0	44.5	66	44.5	10	----	44.5	0.0	8	-8.0
Receiver39	39	1	0.0	44.0	66	44.0	10	----	44.0	0.0	8	-8.0
Receiver40	40	1	0.0	42.1	66	42.1	10	----	42.1	0.0	8	-8.0
Receiver41	41	1	0.0	46.8	66	46.8	10	----	46.8	0.0	8	-8.0
Receiver42	42	1	0.0	50.8	66	50.8	10	----	50.8	0.0	8	-8.0
Receiver43	43	1	0.0	54.7	66	54.7	10	----	54.7	0.0	8	-8.0
Receiver44	44	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
Receiver45	45	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
Receiver46	46	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
Receiver47	47	1	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0
Receiver48	48	1	0.0	56.2	66	56.2	10	----	56.2	0.0	8	-8.0
Receiver49	49	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
Receiver50	50	1	0.0	58.8	66	58.8	10	----	58.8	0.0	8	-8.0
Receiver51	51	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
Receiver52	52	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
Receiver53	53	1	0.0	55.0	66	55.0	10	----	55.0	0.0	8	-8.0
Receiver54	54	1	0.0	51.5	66	51.5	10	----	51.5	0.0	8	-8.0
Receiver55	55	1	0.0	51.0	66	51.0	10	----	51.0	0.0	8	-8.0
Receiver56	56	1	0.0	48.7	66	48.7	10	----	48.7	0.0	8	-8.0
Receiver57	57	1	0.0	49.1	66	49.1	10	----	49.1	0.0	8	-8.0
Receiver58	58	1	0.0	46.3	66	46.3	10	----	46.3	0.0	8	-8.0
Receiver59	59	1	0.0	47.9	66	47.9	10	----	47.9	0.0	8	-8.0
Receiver60	60	1	0.0	45.3	66	45.3	10	----	45.3	0.0	8	-8.0
Receiver61	61	1	0.0	56.2	66	56.2	10	----	56.2	0.0	8	-8.0
Receiver62	62	1	0.0	54.0	66	54.0	10	----	54.0	0.0	8	-8.0
Receiver63	63	1	0.0	48.4	66	48.4	10	----	48.4	0.0	8	-8.0
Receiver64	64	1	0.0	55.7	66	55.7	10	----	55.7	0.0	8	-8.0
Receiver65	65	1	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0

Receiver66	66	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
Receiver67	67	1	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
Receiver68	68	1	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0
Receiver69	69	1	0.0	56.7	66	56.7	10	----	56.7	0.0	8	-8.0
Receiver70	70	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
Receiver71	71	1	0.0	58.9	66	58.9	10	----	58.9	0.0	8	-8.0
Receiver72	72	1	0.0	60.4	66	60.4	10	----	60.4	0.0	8	-8.0
Receiver73	73	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
Receiver74	74	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
Receiver75	75	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0
Receiver76	76	1	0.0	52.5	66	52.5	10	----	52.5	0.0	8	-8.0
Receiver77	77	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
Receiver78	78	1	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0
Receiver79	79	1	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0
Receiver80	80	1	0.0	50.8	66	50.8	10	----	50.8	0.0	8	-8.0
Receiver81	81	1	0.0	53.1	66	53.1	10	----	53.1	0.0	8	-8.0
Receiver82	82	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
Receiver83	83	1	0.0	54.4	66	54.4	10	----	54.4	0.0	8	-8.0
Receiver84	84	1	0.0	50.7	66	50.7	10	----	50.7	0.0	8	-8.0
Receiver85	85	1	0.0	46.7	66	46.7	10	----	46.7	0.0	8	-8.0
Receiver86	86	1	0.0	51.4	66	51.4	10	----	51.4	0.0	8	-8.0
Receiver87	87	1	0.0	52.7	66	52.7	10	----	52.7	0.0	8	-8.0
Receiver88	88	1	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0
Receiver89	89	1	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
Receiver90	90	1	0.0	56.5	66	56.5	10	----	56.5	0.0	8	-8.0
Receiver91	91	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
Receiver92	92	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
Receiver93	93	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
Receiver94	94	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0
Receiver95	95	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
Receiver96	10	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
Receiver97	97	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0
Receiver98	98	1	0.0	61.2	66	61.2	10	----	61.2	0.0	8	-8.0
Receiver99	99	1	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0
Receiver100	100	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
Receiver101	101	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
Receiver102	102	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
Receiver103	103	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
Receiver104	104	1	0.0	47.9	66	47.9	10	----	47.9	0.0	8	-8.0
Receiver105	105	1	0.0	48.2	66	48.2	10	----	48.2	0.0	8	-8.0
Receiver106	106	1	0.0	47.6	66	47.6	10	----	47.6	0.0	8	-8.0

Receiver107	107	1	0.0	49.0	66	49.0	10	----	49.0	0.0	8	-8.0
Receiver108	108	1	0.0	56.2	66	56.2	10	----	56.2	0.0	8	-8.0
Receiver109	109	1	0.0	55.8	66	55.8	10	----	55.8	0.0	8	-8.0
Receiver110	110	1	0.0	56.7	66	56.7	10	----	56.7	0.0	8	-8.0
Receiver111	111	1	0.0	56.9	66	56.9	10	----	56.9	0.0	8	-8.0
Receiver112	112	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
Receiver113	113	1	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0
Receiver114	114	1	0.0	53.6	66	53.6	10	----	53.6	0.0	8	-8.0
Receiver115	115	1	0.0	53.9	66	53.9	10	----	53.9	0.0	8	-8.0
Receiver116	116	1	0.0	53.6	66	53.6	10	----	53.6	0.0	8	-8.0
Receiver117	117	1	0.0	52.1	66	52.1	10	----	52.1	0.0	8	-8.0
Receiver118	118	1	0.0	53.0	66	53.0	10	----	53.0	0.0	8	-8.0
Receiver119	119	1	0.0	53.9	66	53.9	10	----	53.9	0.0	8	-8.0
Receiver121	121	1	0.0	54.1	66	54.1	10	----	54.1	0.0	8	-8.0
Receiver122	122	1	0.0	54.2	66	54.2	10	----	54.2	0.0	8	-8.0
Receiver123	123	1	0.0	53.2	66	53.2	10	----	53.2	0.0	8	-8.0
Receiver124	124	1	0.0	50.7	66	50.7	10	----	50.7	0.0	8	-8.0
Receiver125	125	1	0.0	48.0	66	48.0	10	----	48.0	0.0	8	-8.0
Receiver126	126	1	0.0	48.4	66	48.4	10	----	48.4	0.0	8	-8.0
Receiver127	127	1	0.0	49.4	66	49.4	10	----	49.4	0.0	8	-8.0
Receiver128	128	1	0.0	49.5	66	49.5	10	----	49.5	0.0	8	-8.0
Receiver129	129	1	0.0	44.7	66	44.7	10	----	44.7	0.0	8	-8.0
Receiver130	130	1	0.0	46.7	66	46.7	10	----	46.7	0.0	8	-8.0
Receiver131	131	1	0.0	45.7	66	45.7	10	----	45.7	0.0	8	-8.0
Receiver132	132	1	0.0	47.6	66	47.6	10	----	47.6	0.0	8	-8.0
Receiver133	133	1	0.0	46.9	66	46.9	10	----	46.9	0.0	8	-8.0
Receiver134	134	1	0.0	49.7	66	49.7	10	----	49.7	0.0	8	-8.0
Receiver135	135	1	0.0	49.0	66	49.0	10	----	49.0	0.0	8	-8.0
Receiver136	136	1	0.0	50.7	66	50.7	10	----	50.7	0.0	8	-8.0
Receiver137	137	1	0.0	50.7	66	50.7	10	----	50.7	0.0	8	-8.0
Receiver138	138	1	0.0	52.4	66	52.4	10	----	52.4	0.0	8	-8.0
Receiver139	139	1	0.0	57.4	66	57.4	10	----	57.4	0.0	8	-8.0
Receiver140	140	1	0.0	57.5	66	57.5	10	----	57.5	0.0	8	-8.0
Receiver141	141	1	0.0	49.4	66	49.4	10	----	49.4	0.0	8	-8.0
Receiver142	142	1	0.0	57.1	66	57.1	10	----	57.1	0.0	8	-8.0
Receiver143	143	1	0.0	56.2	66	56.2	10	----	56.2	0.0	8	-8.0
Receiver144	144	1	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
Receiver145	145	1	0.0	49.0	66	49.0	10	----	49.0	0.0	8	-8.0
Receiver146	146	1	0.0	49.3	66	49.3	10	----	49.3	0.0	8	-8.0
Receiver147	147	1	0.0	50.3	66	50.3	10	----	50.3	0.0	8	-8.0
Receiver148	148	1	0.0	50.9	66	50.9	10	----	50.9	0.0	8	-8.0

Receiver149	149	1	0.0	50.6	66	50.6	10	----	50.6	0.0	8	-8.0
Receiver150	150	1	0.0	44.1	66	44.1	10	----	44.1	0.0	8	-8.0
Receiver151	151	1	0.0	49.3	66	49.3	10	----	49.3	0.0	8	-8.0
Receiver152	152	1	0.0	46.5	66	46.5	10	----	46.5	0.0	8	-8.0
Receiver153	153	1	0.0	45.3	66	45.3	10	----	45.3	0.0	8	-8.0
Receiver154	154	1	0.0	48.9	66	48.9	10	----	48.9	0.0	8	-8.0
Receiver155	155	1	0.0	45.9	66	45.9	10	----	45.9	0.0	8	-8.0
Receiver156	156	1	0.0	47.1	66	47.1	10	----	47.1	0.0	8	-8.0
Receiver157	157	1	0.0	47.5	66	47.5	10	----	47.5	0.0	8	-8.0
Receiver158	158	1	0.0	45.1	66	45.1	10	----	45.1	0.0	8	-8.0
Receiver159	159	1	0.0	44.5	66	44.5	10	----	44.5	0.0	8	-8.0
Receiver160	160	1	0.0	43.9	66	43.9	10	----	43.9	0.0	8	-8.0
Receiver161	161	1	0.0	45.0	66	45.0	10	----	45.0	0.0	8	-8.0
Receiver162	162	1	0.0	46.5	66	46.5	10	----	46.5	0.0	8	-8.0
Receiver163	163	1	0.0	48.1	66	48.1	10	----	48.1	0.0	8	-8.0
Receiver164	164	1	0.0	51.0	66	51.0	10	----	51.0	0.0	8	-8.0
Receiver165	165	1	0.0	52.8	66	52.8	10	----	52.8	0.0	8	-8.0
Receiver166	166	1	0.0	51.6	66	51.6	10	----	51.6	0.0	8	-8.0
Receiver167	167	1	0.0	52.0	66	52.0	10	----	52.0	0.0	8	-8.0
Receiver168	168	1	0.0	52.2	66	52.2	10	----	52.2	0.0	8	-8.0
Receiver169	169	1	0.0	52.0	66	52.0	10	----	52.0	0.0	8	-8.0
Receiver170	170	1	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0
Receiver171	171	1	0.0	52.9	66	52.9	10	----	52.9	0.0	8	-8.0
Receiver172	172	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
Receiver173	173	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
Receiver174	174	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
Receiver175	175	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
Receiver176	176	1	0.0	39.4	66	39.4	10	----	39.4	0.0	8	-8.0
Receiver177	177	1	0.0	54.1	66	54.1	10	----	54.1	0.0	8	-8.0
Receiver178	178	1	0.0	56.1	66	56.1	10	----	56.1	0.0	8	-8.0
Receiver179	179	1	0.0	55.3	66	55.3	10	----	55.3	0.0	8	-8.0
Receiver180	180	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
Receiver181	181	1	0.0	57.5	66	57.5	10	----	57.5	0.0	8	-8.0
Receiver182	182	1	0.0	51.9	66	51.9	10	----	51.9	0.0	8	-8.0
ST_LT1	184	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	182	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Bericht (Exist w Prj Traffic Only_New.cna)

Gruppentabelle Tag und Nacht

Name	Expression																		
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	N

Source																			
Name	M.	ID																	
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	
Los Carneros Road													3.7		20.7		35.5		
US 101 SB Onramp											41.2		42.5	-86.9	39.5		15.1		
US 101 SB Offramp																	-11.6		
US 101 SB											37.8		35.0		20.5		10.2		
US 101 SB			57.7	-84.5	57.7	-84.4	57.2	-84.7	56.5	-86.1	51.1		47.7		43.0		26.1		
US 101 NB			51.9		50.5		50.5		49.6		48.2		45.3		41.0		24.3		
US 101 NB											34.1		36.4		19.3		8.8		
UPRR			49.5	49.5	49.9	49.9	50.3	50.3	50.8	50.8	51.1	51.1	31.8	31.8	32.7	32.7	31.0	31.0	
UPRR																			

Schallquellen

Punktquellen

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night	
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)

Linienquellen

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen vertikal

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Schienen

Name	M.	ID	Lm,E		Train Class	Add.Level				Vmax
			Day	Night		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			0.0	0.0						
UPRR			0.0	0.0						

Zugklassen

Name	M.	ID	Lm,E		Train Class											Add.Level				Vmax
			Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night	(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			0.0	0.0																
UPRR			0.0	0.0																

Name	Lm,E		Train Class									
	Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)	
	(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night

Parkplätze

Name	M.	ID	Type	Lwa			Event Data						Penalty Type		Penalty Surface		A
				Day	Special	Night	Ref. Quantity	Number B	No. Spaces/RefQ	Events/h/RefQ			Kpa	Type	Kstro	Surface	
				(dBA)	(dBA)	(dBA)				Day	Special	Night	(dB)		(dB)		

Strassen

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	S
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Ds
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(d
Los Carneros Road			69.3	0.0	0.0			2742.0	0.0	0.0	5.0	0.0	0.0	72		RQ 20	
US 101 SB Onramp			61.2	0.0	0.0			424.0	0.0	0.0	5.0	0.0	0.0	72		RQ 12	
US 101 SB Offramp			60.6	0.0	0.0			142.0	0.0	0.0	5.0	0.0	0.0	100		RQ 12	
US 101 SB			75.3	0.0	0.0			3331.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 SB			74.9	0.0	0.0			3031.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			74.2	0.0	0.0			2567.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			74.2	0.0	0.0			2567.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	

Ampeln

Name	M.	ID	Active			Height	Coordinates		
			Day	Evening	Night	Begin	X	Y	Z
						(m)	(m)	(m)	(m)

Immissionspunkte

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
			59.2	49.5	0.0	0.0		x	Total	1.50	r	11238158.88	3814274.45	10.07
			59.0	49.9	0.0	0.0		x	Total	1.50	r	11238145.19	3814273.08	10.17
			58.7	50.3	0.0	0.0		x	Total	1.50	r	11238128.68	3814272.48	10.30
			58.2	50.8	0.0	0.0		x	Total	1.50	r	11238111.97	3814270.98	10.41
			55.4	51.1	0.0	0.0		x	Total	1.50	r	11238105.86	3814263.69	10.35
			50.8	31.8	0.0	0.0		x	Total	1.50	r	11238107.53	3814258.72	10.36
			46.4	32.7	0.0	0.0		x	Total	1.50	r	11238109.36	3814250.46	10.35
			37.4	31.0	0.0	0.0		x	Total	1.50	r	11238117.34	3814245.69	10.32
			36.7	30.5	0.0	0.0		x	Total	1.50	r	11238129.68	3814247.19	10.29
			41.7	39.4	0.0	0.0		x	Total	1.50	r	11238139.98	3814238.42	10.29
			41.5	38.4	0.0	0.0		x	Total	1.50	r	11238132.71	3814238.00	10.30
			42.0	36.8	0.0	0.0		x	Total	1.50	r	11238122.29	3814237.03	10.31
			47.5	39.0	0.0	0.0		x	Total	1.50	r	11238115.68	3814231.37	10.33
			47.1	40.0	0.0	0.0		x	Total	1.50	r	11238117.37	3814222.06	10.32
			43.3	42.2	0.0	0.0		x	Total	1.50	r	11238124.18	3814211.84	10.30
			53.0	28.6	0.0	0.0		x	Total	1.50	r	11238167.78	3814224.98	10.17
			44.3	28.4	0.0	0.0		x	Total	1.50	r	11238165.37	3814240.73	10.27
			56.7	28.2	0.0	0.0		x	Total	1.50	r	11238167.76	3814253.05	10.31
			57.3	28.1	0.0	0.0		x	Total	1.50	r	11238163.26	3814267.75	10.15
			57.5	51.4	0.0	0.0		x	Total	1.50	r	11238095.94	3814262.98	10.46
			57.8	51.5	0.0	0.0		x	Total	1.50	r	11238091.05	3814262.56	10.62

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
			57.3	42.5	0.0	0.0		x	Total	1.50	r	11238082.91	3814260.93	10.88
			58.4	52.0	0.0	0.0		x	Total	1.50	r	11238077.03	3814261.14	11.08
			58.8	52.2	0.0	0.0		x	Total	1.50	r	11238070.78	3814259.57	11.26
			57.9	32.1	0.0	0.0		x	Total	1.50	r	11238063.82	3814257.53	11.41
			59.0	52.6	0.0	0.0		x	Total	1.50	r	11238058.76	3814259.29	11.50
			59.0	52.9	0.0	0.0		x	Total	1.50	r	11238051.34	3814258.62	11.64
			59.0	53.3	0.0	0.0		x	Total	1.50	r	11238044.92	3814258.04	11.76
			59.0	53.5	0.0	0.0		x	Total	1.50	r	11238038.91	3814257.62	11.87
			58.3	53.6	0.0	0.0		x	Total	1.50	r	11238035.70	3814252.75	11.93
			52.0	45.2	0.0	0.0		x	Total	1.50	r	11238036.20	3814245.83	11.93
			55.4	45.0	0.0	0.0		x	Total	1.50	r	11238034.70	3814242.25	11.97
			55.3	44.8	0.0	0.0		x	Total	1.50	r	11238034.12	3814238.16	11.97
			43.8	42.2	0.0	0.0		x	Total	1.50	r	11238037.20	3814235.58	11.90
			40.4	32.7	0.0	0.0		x	Total	1.50	r	11238041.79	3814233.08	11.77
			40.1	32.5	0.0	0.0		x	Total	1.50	r	11238050.79	3814234.66	11.55
			39.5	31.3	0.0	0.0		x	Total	1.50	r	11238073.05	3814235.66	10.98
			40.5	31.9	0.0	0.0		x	Total	1.50	r	11238092.32	3814237.58	10.49
			41.6	30.2	0.0	0.0		x	Total	1.50	r	11238097.48	3814238.25	10.35
			36.0	29.4	0.0	0.0		x	Total	1.50	r	11238099.57	3814242.92	10.34
			36.1	29.3	0.0	0.0		x	Total	1.50	r	11238099.32	3814249.25	10.34
			34.0	29.2	0.0	0.0		x	Total	1.50	r	11238100.15	3814252.50	10.34
			53.2	29.1	0.0	0.0		x	Total	1.50	r	11238100.82	3814257.51	10.34
			57.9	36.4	0.0	0.0		x	Total	1.50	r	11238006.18	3814253.15	12.23
			59.9	55.1	0.0	0.0		x	Total	1.50	r	11238001.34	3814253.81	12.28
			60.0	55.4	0.0	0.0		x	Total	1.50	r	11237996.01	3814250.31	12.38
			60.4	55.7	0.0	0.0		x	Total	1.50	r	11237988.02	3814249.60	12.42
			57.8	38.4	0.0	0.0		x	Total	1.50	r	11237984.83	3814247.14	12.42
			60.2	54.8	0.0	0.0		x	Total	1.50	r	11237979.50	3814249.06	12.43
			58.7	40.1	0.0	0.0		x	Total	1.50	r	11237972.41	3814248.34	12.45
			60.6	56.9	0.0	0.0		x	Total	1.50	r	11237966.91	3814250.73	12.41
			60.9	57.2	0.0	0.0		x	Total	1.50	r	11237962.02	3814249.08	12.43
			58.3	53.5	0.0	0.0		x	Total	1.50	r	11237960.24	3814244.31	12.50
			54.1	44.0	0.0	0.0		x	Total	1.50	r	11237961.24	3814232.50	12.50
			52.6	44.3	0.0	0.0		x	Total	1.50	r	11237962.10	3814224.53	12.50
			46.5	38.8	0.0	0.0		x	Total	1.50	r	11237965.48	3814220.85	12.50
			47.6	38.1	0.0	0.0		x	Total	1.50	r	11237969.18	3814220.11	12.53
			41.3	38.0	0.0	0.0		x	Total	1.50	r	11237984.40	3814224.30	12.62
			45.1	36.8	0.0	0.0		x	Total	1.50	r	11238003.88	3814223.39	12.77
			41.7	37.5	0.0	0.0		x	Total	1.50	r	11238008.63	3814224.56	12.77
			57.4	36.3	0.0	0.0		x	Total	1.50	r	11238010.32	3814229.42	12.68
			57.5	35.8	0.0	0.0		x	Total	1.50	r	11238009.29	3814238.06	12.49
			57.5	35.3	0.0	0.0		x	Total	1.50	r	11238008.49	3814249.18	12.26
			57.3	38.5	0.0	0.0		x	Total	1.50	r	11237949.84	3814242.00	12.50
			60.6	56.7	0.0	0.0		x	Total	1.50	r	11237947.43	3814247.77	12.52
			61.3	58.1	0.0	0.0		x	Total	1.50	r	11237941.96	3814248.40	12.58
			61.4	58.5	0.0	0.0		x	Total	1.50	r	11237937.34	3814245.25	12.62
			61.9	58.7	0.0	0.0		x	Total	1.50	r	11237929.36	3814244.20	12.71
			57.9	41.2	0.0	0.0		x	Total	1.50	r	11237924.74	3814241.89	12.75
			61.8	58.7	0.0	0.0		x	Total	1.50	r	11237921.16	3814243.89	12.79
			60.0	54.0	0.0	0.0		x	Total	1.50	r	11237913.18	3814243.26	12.87
			62.3	59.3	0.0	0.0		x	Total	1.50	r	11237907.93	3814245.36	12.93
			62.3	59.1	0.0	0.0		x	Total	1.50	r	11237903.22	3814243.82	12.98
			62.3	59.2	0.0	0.0		x	Total	1.50	r	11237901.39	3814239.15	13.00
			62.4	59.5	0.0	0.0		x	Total	1.50	r	11237901.89	3814232.81	13.00
			62.6	59.7	0.0	0.0		x	Total	1.50	r	11237902.64	3814226.72	12.98
			62.8	60.1	0.0	0.0		x	Total	1.50	r	11237903.14	3814220.22	13.03
			58.7	43.3	0.0	0.0		x	Total	1.50	r	11237905.89	3814215.30	13.05
			58.4	42.9	0.0	0.0		x	Total	1.50	r	11237910.23	3814214.63	13.00
			51.5	41.9	0.0	0.0		x	Total	1.50	r	11237915.31	3814218.22	12.88
			52.8	41.0	0.0	0.0		x	Total	1.50	r	11237923.65	3814218.89	12.75
			51.7	40.5	0.0	0.0		x	Total	1.50	r	11237931.41	3814219.39	12.64
			50.6	39.6	0.0	0.0		x	Total	1.50	r	11237938.41	3814220.14	12.55
			50.1	39.4	0.0	0.0		x	Total	1.50	r	11237944.50	3814217.80	12.50

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
			43.3	39.3	0.0	0.0		x	Total	1.50	r	11237949.25	3814219.14	12.50
			53.1	38.8	0.0	0.0		x	Total	1.50	r	11237951.00	3814224.81	12.50
			56.0	38.5	0.0	0.0		x	Total	1.50	r	11237950.00	3814235.23	12.50
			57.1	55.8	0.0	0.0		x	Total	1.50	r	11237930.46	3814204.31	13.00
			58.4	57.0	0.0	0.0		x	Total	1.50	r	11237924.19	3814204.84	13.04
			61.5	60.2	0.0	0.0		x	Total	1.50	r	11237913.90	3814205.68	13.10
			63.0	60.9	0.0	0.0		x	Total	1.50	r	11237906.25	3814205.88	13.14
			64.1	61.5	0.0	0.0		x	Total	1.50	r	11237903.92	3814198.64	13.08
			64.2	61.9	0.0	0.0		x	Total	1.50	r	11237906.41	3814190.27	13.00
			64.4	62.2	0.0	0.0		x	Total	1.50	r	11237905.92	3814184.34	13.00
			64.7	62.5	0.0	0.0		x	Total	1.50	r	11237905.28	3814175.17	13.00
			64.7	62.5	0.0	0.0		x	Total	1.50	r	11237904.78	3814168.33	13.00
			64.5	62.4	0.0	0.0		x	Total	1.50	r	11237904.36	3814159.15	13.00
			64.5	62.3	0.0	0.0		x	Total	1.50	r	11237903.89	3814152.34	13.00
			64.5	62.4	0.0	0.0		x	Total	1.50	r	11237900.93	3814146.17	13.04
			64.4	62.3	0.0	0.0		x	Total	1.50	r	11237901.77	3814140.17	13.07
			56.8	42.2	0.0	0.0		x	Total	1.50	r	11237904.96	3814138.70	13.07
			54.8	42.1	0.0	0.0		x	Total	1.50	r	11237916.26	3814137.67	13.03
			53.4	41.4	0.0	0.0		x	Total	1.50	r	11237926.46	3814137.10	13.00
			45.5	41.2	0.0	0.0		x	Total	1.50	r	11237930.11	3814142.83	13.00
			44.3	41.6	0.0	0.0		x	Total	1.50	r	11237928.78	3814169.17	13.00
			43.5	41.4	0.0	0.0		x	Total	1.50	r	11237929.78	3814185.83	13.00
			44.2	41.3	0.0	0.0		x	Total	1.50	r	11237932.95	3814200.50	13.00
			60.8	59.6	0.0	0.0		x	Total	1.50	r	11237916.87	3814093.05	9.14
			60.7	59.6	0.0	0.0		x	Total	1.50	r	11237911.83	3814086.96	9.16
			60.6	59.3	0.0	0.0		x	Total	1.50	r	11237907.84	3814085.07	9.15
			60.3	59.0	0.0	0.0		x	Total	1.50	r	11237903.85	3814080.45	9.17
			58.8	57.1	0.0	0.0		x	Total	1.50	r	11237905.11	3814076.46	9.20
			51.6	43.1	0.0	0.0		x	Total	1.50	r	11237911.41	3814071.62	9.05
			53.5	48.0	0.0	0.0		x	Total	1.50	r	11237917.71	3814065.53	8.92
			54.6	51.5	0.0	0.0		x	Total	1.50	r	11237924.85	3814058.18	8.91
			53.9	50.1	0.0	0.0		x	Total	1.50	r	11237931.15	3814054.19	8.92
			50.5	39.1	0.0	0.0		x	Total	1.50	r	11237936.41	3814052.93	8.94
			55.9	53.1	0.0	0.0		x	Total	1.50	r	11237933.89	3814046.84	8.87
			57.6	55.8	0.0	0.0		x	Total	1.50	r	11237929.05	3814041.59	8.79
			59.3	58.0	0.0	0.0		x	Total	1.50	r	11237922.96	3814033.40	8.67
			59.6	58.5	0.0	0.0		x	Total	1.50	r	11237915.40	3814023.32	8.57
			59.2	58.2	0.0	0.0		x	Total	1.50	r	11237910.36	3814016.60	8.56
			55.8	54.9	0.0	0.0		x	Total	1.50	r	11237904.69	3814008.41	8.54
			47.5	46.5	0.0	0.0		x	Total	1.50	r	11237905.53	3814001.90	8.48
			47.8	45.5	0.0	0.0		x	Total	1.50	r	11237908.89	3813998.96	8.43
			50.1	45.7	0.0	0.0		x	Total	1.50	r	11237914.35	3813994.34	8.38
			49.3	44.7	0.0	0.0		x	Total	1.50	r	11237917.92	3813991.82	8.34
			37.4	36.7	0.0	0.0		x	Total	1.50	r	11237925.48	3813995.60	8.25
			37.4	36.7	0.0	0.0		x	Total	1.50	r	11237935.78	3814009.04	8.45
			37.4	36.8	0.0	0.0		x	Total	1.50	r	11237947.96	3814024.79	8.68
			37.5	36.9	0.0	0.0		x	Total	1.50	r	11237960.56	3814040.96	8.92
			51.0	49.7	0.0	0.0		x	Total	1.50	r	11237962.45	3814056.29	9.08
			57.3	56.2	0.0	0.0		x	Total	1.50	r	11237951.11	3814068.68	9.07
			57.0	55.9	0.0	0.0		x	Total	1.50	r	11237956.15	3814064.69	9.08
			57.4	56.4	0.0	0.0		x	Total	1.50	r	11237941.24	3814076.04	9.08
			58.9	58.0	0.0	0.0		x	Total	1.50	r	11237935.57	3814081.92	9.09
			60.3	59.4	0.0	0.0		x	Total	1.50	r	11237927.16	3814088.22	9.09
			59.3	57.3	0.0	0.0		x	Total	1.50	r	11237890.45	3814025.86	8.81
			59.7	58.0	0.0	0.0		x	Total	1.50	r	11237882.51	3814010.85	8.77
			56.7	55.7	0.0	0.0		x	Total	1.50	r	11237901.70	3814017.46	8.64
			59.4	57.9	0.0	0.0		x	Total	1.50	r	11237900.64	3814035.98	8.80
			59.8	58.4	0.0	0.0		x	Total	1.50	r	11237904.48	3814052.79	8.88
			56.0	52.1	0.0	0.0		x	Total	1.50	r	11237887.02	3814002.60	8.75
			51.4	50.6	0.0	0.0		x	Total	1.50	r	11238102.76	3814182.07	10.66
			52.1	51.1	0.0	0.0		x	Total	1.50	r	11238087.19	3814180.63	10.85
			53.0	51.8	0.0	0.0		x	Total	1.50	r	11238054.90	3814177.76	11.10
			53.5	51.7	0.0	0.0		x	Total	1.50	r	11238037.24	3814169.05	10.88

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
			53.5	51.9	0.0	0.0		x	Total	1.50	r	11238038.29	3814157.89	10.72
			44.1	34.1	0.0	0.0		x	Total	1.50	r	11238050.67	3814151.80	10.57
			49.8	47.0	0.0	0.0		x	Total	1.50	r	11238056.23	3814218.08	11.20
			47.8	46.2	0.0	0.0		x	Total	1.50	r	11238090.15	3814224.92	10.34
			44.4	42.0	0.0	0.0		x	Total	1.50	r	11238095.64	3814229.01	10.34
			49.3	38.3	0.0	0.0		x	Total	1.50	r	11238104.64	3814233.36	10.34
			45.5	38.4	0.0	0.0		x	Total	1.50	r	11238098.44	3814232.67	10.34
			48.9	47.8	0.0	0.0		x	Total	1.50	r	11238079.26	3814220.55	10.50
			49.1	48.0	0.0	0.0		x	Total	1.50	r	11238079.65	3814215.96	10.57
			43.5	38.1	0.0	0.0		x	Total	1.50	r	11238085.08	3814213.94	10.44
			42.3	35.8	0.0	0.0		x	Total	1.50	r	11238091.30	3814208.91	10.34
			43.7	42.1	0.0	0.0		x	Total	1.50	r	11238105.19	3814209.84	10.34
			36.6	34.9	0.0	0.0		x	Total	1.50	r	11238108.37	3814214.20	10.34
			44.2	34.5	0.0	0.0		x	Total	1.50	r	11238110.80	3814220.79	10.34
			46.7	33.6	0.0	0.0		x	Total	1.50	r	11238106.91	3814228.75	10.34
			51.2	49.2	0.0	0.0		x	Total	1.50	r	11237986.96	3814210.37	12.32
			54.1	49.6	0.0	0.0		x	Total	1.50	r	11237957.55	3814208.80	12.47
			52.0	49.3	0.0	0.0		x	Total	1.50	r	11237953.26	3814188.06	12.45
			53.4	51.9	0.0	0.0		x	Total	1.50	r	11237995.10	3814185.06	11.44
			53.6	51.6	0.0	0.0		x	Total	1.50	r	11238006.27	3814175.23	11.18
			52.8	51.0	0.0	0.0		x	Total	1.50	r	11237988.46	3814166.84	11.21
			54.9	52.7	0.0	0.0		x	Total	1.50	r	11237973.91	3814133.63	12.49
			55.7	53.6	0.0	0.0		x	Total	1.50	r	11237992.23	3814117.48	12.44
			59.4	55.2	0.0	0.0		x	Total	1.50	r	11237833.27	3813996.54	8.83
			60.6	57.0	0.0	0.0		x	Total	1.50	r	11237824.45	3813983.73	8.91
			56.9	39.6	0.0	0.0		x	Total	1.50	r	11237833.27	3813973.23	9.05
			54.1	38.9	0.0	0.0		x	Total	1.50	r	11237867.71	3813948.03	9.00
			37.8	37.2	0.0	0.0		x	Total	1.50	r	11237883.04	3813953.70	8.88
			59.2	58.3	0.0	0.0		x	Total	1.50	r	11237889.97	3813979.95	8.81
			59.9	58.9	0.0	0.0		x	Total	1.50	r	11237880.10	3813982.05	8.82
			60.0	59.0	0.0	0.0		x	Total	1.50	r	11237872.75	3813973.02	8.89
			60.0	59.2	0.0	0.0		x	Total	1.50	r	11237860.99	3813977.22	8.90
			59.7	58.3	0.0	0.0		x	Total	1.50	r	11237843.77	3813990.45	8.88
			52.5	45.5	0.0	0.0		x	Total	1.50	r	11238038.23	3814220.11	11.73
			55.9	49.4	0.0	0.0		x	Total	1.50	r	11238004.69	3814209.22	12.37
ST_LT1			57.6	51.6	0.0	0.0		x	Total	1.50	r	11238077.99	3814278.44	11.32

Gebietsausweisungen

Name	M.	ID	Type	Persons
				(1/km²)

Hindernisse

Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			
			left	right		horz.	vert.	Begin		End	
					(m)	(m)	(m)	(m)		(m)	

Häuser

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		3.65	r
			x	0		3.65	r
			x	0		6.70	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		4.60	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		9.75	r

Bewuchs

Name	M.	ID	Height
			(m)

Bebauung

Name	M.	ID	Type	Attenuation	B	m	Height
				dB/100m	%	1/m	(m)

Geometriedaten

Geometrie Linienquellen

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Flächenquellen

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Parkplätze

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Straßen

Name	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(m)	(%)
	(m)	(m)	(m)	(m)	(m)	(m)		
Los Carneros Road			11237697.29	3813908.86	7.62	7.60		
			11237759.07	3813961.83	10.67	10.70		
			11237782.99	3813989.66	10.67	11.00		
			11237808.40	3814029.18	12.50	12.50		
			11237829.81	3814079.44	12.80	14.00		
			11237845.52	3814131.11	14.33	16.00		
			11237849.30	3814230.44	14.94	18.50		
			11237851.61	3814289.45	16.76	21.30		
			11237854.07	3814329.87	18.29	21.50		
			11237857.43	3814385.23	18.29	18.29		
			11237861.66	3814452.97	16.46	16.46		
US 101 SB Onramp			11237862.91	3814329.11	14.33	21.50		
			11237917.30	3814334.68	14.63	19.00		
			11237998.36	3814343.08	14.63	15.80		
			11238188.34	3814363.72	10.36	12.20		
			11238396.35	3814383.05	9.75	10.40		
US 101 SB Offramp			11237577.38	3814297.86	12.19	12.19		
			11237682.81	3814309.20	14.33	14.33		
			11237760.93	3814317.60	14.33	18.00		
			11237844.93	3814327.68	14.00	21.50		
US 101 SB			11237580.17	3814319.88	12.80	12.80		

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		
					11237676.48	3814338.40	12.50	12.50		
					11237752.15	3814353.33	12.19	12.19		
					11237789.19	3814359.46	12.19	12.19		
					11237847.26	3814365.39	12.50	12.50		
US 101 SB					11237865.59	3814369.12	12.50	12.50		
					11237906.40	3814372.39	11.28	11.28		
					11237997.12	3814376.59	10.97	10.97		
					11238183.92	3814379.77	10.97	10.97		
					11238395.93	3814392.44	10.36	10.36		
US 101 NB					11238394.07	3814413.64	9.14	9.14		
					11238181.55	3814403.56	9.75	9.75		
					11237995.91	3814396.84	11.28	11.28		
					11237901.83	3814389.28	10.67	10.67		
					11237866.49	3814386.68	12.50	12.50		
US 101 NB					11237847.87	3814383.91	12.50	12.50		
					11237786.75	3814375.84	12.19	12.19		
					11237748.95	3814369.96	12.19	12.19		
					11237674.19	3814356.52	13.11	13.11		
					11237577.59	3814337.20	12.50	12.50		

Geometrie Schienen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)
UPRR	12.50	a	12.50	a	11237570.03	3814262.43	12.50	1.88
					11237838.85	3814285.11	12.50	11.38
UPRR	12.50	a	8.53	a	11237861.86	3814287.47	12.50	11.58
					11238395.28	3814332.85	8.53	0.89

Geometrie Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
			left	right		horz.	vert.	Begin		End		x	y	z	Ground
					(m)	(m)	(m)	(m)		(m)		(m)	(m)	(m)	(m)
												11237880.37	3814214.17	14.90	13.10
												11237881.18	3814251.51	14.90	13.10
												11237882.02	3814269.67	13.70	11.90
												11237895.41	3814270.84	13.40	11.60
												11237911.06	3814272.16	12.80	11.00
												11237945.61	3814275.47	12.80	11.00
												11237961.46	3814277.18	12.50	10.70
												11238006.41	3814281.33	12.30	10.50
												11238074.37	3814287.71	11.90	10.10
												11238128.78	3814292.54	10.95	9.15
												11238169.64	3814296.43	10.34	8.54
												11238187.40	3814297.69	10.95	9.15

Geometrie Häuser

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		3.65	r	11238188.92	3814297.40	12.80	9.15
								11238194.21	3814297.14	12.80	9.21
								11238193.42	3814235.75	12.80	8.41
								11238220.94	3814234.69	12.80	8.50
								11238220.67	3814227.01	12.80	8.34
								11238187.86	3814229.66	12.80	8.27
								11238189.18	3814297.40	12.80	9.15
			x	0		3.65	r	11238198.18	3814176.74	11.11	7.46
								11238200.30	3814224.10	11.11	8.31
								11238237.34	3814223.31	11.11	8.24
								11238236.55	3814196.05	11.11	7.69

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238223.32	3814196.32	11.11	7.71
								11238222.79	3814175.68	11.11	7.29
			x	0		6.70	r	11237903.99	3814215.91	18.27	11.57
								11237901.32	3814243.25	18.27	11.50
								11237905.31	3814243.57	18.27	11.46
								11237905.26	3814244.72	18.27	11.46
								11237909.41	3814244.98	18.27	11.42
								11237909.83	3814239.79	18.27	11.40
								11237911.82	3814239.94	18.27	11.38
								11237911.77	3814242.25	18.27	11.39
								11237923.27	3814243.15	18.27	11.27
								11237923.43	3814240.99	18.27	11.26
								11237927.52	3814241.41	18.27	11.22
								11237927.31	3814243.51	18.27	11.23
								11237939.07	3814244.68	18.27	11.11
								11237939.22	3814242.53	18.27	11.10
								11237941.17	3814242.68	18.27	11.08
								11237940.69	3814247.83	18.27	11.10
								11237944.63	3814248.15	18.27	11.05
								11237944.74	3814246.83	18.27	11.05
								11237948.73	3814247.15	18.27	11.01
								11237951.25	3814219.58	18.27	11.00
								11237947.26	3814219.27	18.27	11.00
								11237947.34	3814218.14	18.27	11.00
								11237943.38	3814217.89	18.27	11.00
								11237942.88	3814222.85	18.27	11.01
								11237941.01	3814222.81	18.27	11.03
								11237941.13	3814220.39	18.27	11.03
								11237913.61	3814218.28	18.27	11.40
								11237913.48	3814220.39	18.27	11.37
								11237911.36	3814220.19	18.27	11.41
								11237911.89	3814215.23	18.27	11.47
								11237907.92	3814214.84	18.27	11.53
								11237907.79	3814215.89	18.27	11.52
								11237903.82	3814215.50	18.27	11.57
			x	0		6.70	r	11237960.36	3814248.60	17.64	10.94
								11237964.18	3814248.92	17.64	10.94
								11237964.17	3814249.98	17.64	10.92
								11237968.27	3814250.40	17.64	10.92
								11237968.69	3814245.25	17.64	10.97
								11237970.58	3814245.46	17.64	10.96
								11237970.37	3814247.66	17.64	10.96
								11237982.13	3814248.71	17.64	10.93
								11237982.45	3814246.30	17.64	10.93
								11237986.44	3814246.72	17.64	10.93
								11237986.23	3814249.03	17.64	10.91
								11237997.99	3814249.98	17.64	10.87
								11237998.10	3814247.77	17.64	10.91
								11237999.99	3814247.98	17.64	10.88
								11237999.57	3814253.13	17.64	10.80
								11238004.30	3814253.65	17.64	10.75
								11238004.33	3814252.58	17.64	10.75
								11238007.69	3814252.90	17.64	10.71
								11238010.07	3814225.08	17.64	11.27
								11238006.19	3814224.87	17.64	11.24
								11238006.29	3814223.72	17.64	11.26
								11238002.14	3814223.44	17.64	11.26
								11238001.77	3814228.23	17.64	11.21
								11237999.88	3814228.13	17.64	11.20
								11238000.02	3814226.06	17.64	11.22
								11237972.62	3814223.61	17.64	11.03
								11237972.36	3814225.92	17.64	11.01
								11237970.47	3814225.82	17.64	10.99

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237971.00	3814220.46	17.64	11.05
								11237967.11	3814219.93	17.64	11.02
								11237966.80	3814221.40	17.64	11.00
								11237962.80	3814220.88	17.64	11.00
			x	0		9.75	r	11238034.68	3814235.95	20.20	10.45
								11238034.15	3814241.31	20.20	10.48
								11238035.41	3814241.31	20.20	10.45
								11238034.89	3814244.67	20.20	10.46
								11238036.99	3814244.88	20.20	10.42
								11238036.78	3814247.40	20.20	10.42
								11238034.26	3814247.29	20.20	10.46
								11238034.26	3814248.66	20.20	10.45
								11238036.57	3814248.97	20.20	10.42
								11238036.04	3814253.91	20.20	10.43
								11238037.51	3814254.12	20.20	10.40
								11238037.30	3814256.75	20.20	10.40
								11238046.44	3814257.59	20.20	10.23
								11238046.65	3814255.28	20.20	10.23
								11238048.96	3814255.49	20.20	10.18
								11238048.86	3814257.80	20.20	10.18
								11238060.52	3814258.85	20.20	9.97
								11238060.83	3814256.64	20.20	9.96
								11238065.56	3814257.06	20.20	9.87
								11238065.45	3814257.80	20.20	9.88
								11238069.44	3814258.11	20.20	9.78
								11238069.23	3814258.85	20.20	9.79
								11238072.65	3814259.11	20.20	9.71
								11238072.49	3814260.21	20.20	9.72
								11238081.66	3814261.05	20.20	9.43
								11238081.66	3814260.05	20.20	9.42
								11238084.75	3814260.46	20.20	9.32
								11238085.16	3814256.30	20.20	9.30
								11238090.42	3814257.05	20.20	9.13
								11238089.92	3814261.88	20.20	9.16
								11238096.58	3814262.38	20.20	8.94
								11238096.75	3814259.05	20.20	8.93
								11238100.34	3814259.38	20.20	8.84
								11238101.09	3814253.71	20.20	8.84
								11238099.67	3814253.54	20.20	8.84
								11238099.92	3814250.54	20.20	8.84
								11238098.84	3814250.54	20.20	8.84
								11238099.00	3814247.71	20.20	8.84
								11238101.42	3814247.96	20.20	8.84
								11238101.25	3814246.21	20.20	8.84
								11238098.84	3814246.04	20.20	8.84
								11238099.25	3814241.12	20.20	8.84
								11238098.42	3814241.12	20.20	8.84
								11238098.50	3814238.70	20.20	8.84
								11238090.33	3814237.95	20.20	9.05
								11238090.33	3814238.70	20.20	9.05
								11238087.16	3814238.54	20.20	9.13
								11238087.33	3814237.37	20.20	9.12
								11238078.16	3814236.45	20.20	9.35
								11238077.99	3814237.37	20.20	9.36
								11238074.66	3814237.12	20.20	9.45
								11238074.74	3814236.04	20.20	9.44
								11238069.91	3814235.79	20.20	9.56
								11238069.82	3814236.79	20.20	9.57
								11238063.74	3814236.12	20.20	9.73
								11238063.74	3814235.16	20.20	9.72
								11238054.52	3814234.22	20.20	9.95
								11238054.48	3814235.37	20.20	9.96
								11238045.56	3814234.62	20.20	10.19

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238045.56	3814233.62	20.20	10.18
								11238038.48	3814233.12	20.20	10.36
								11238038.14	3814236.12	20.20	10.38
			x	0		9.75	r	11238106.23	3814266.67	18.61	8.86
								11238109.59	3814266.88	18.61	8.88
								11238109.38	3814269.82	18.61	8.89
								11238116.31	3814270.66	18.61	8.90
								11238117.26	3814265.51	18.61	8.88
								11238122.10	3814265.85	18.61	8.84
								11238121.84	3814270.15	18.61	8.85
								11238124.75	3814270.28	18.61	8.83
								11238124.82	3814271.34	18.61	8.83
								11238134.15	3814272.07	18.61	8.76
								11238134.21	3814270.94	18.61	8.75
								11238137.45	3814271.34	18.61	8.73
								11238137.19	3814272.40	18.61	8.73
								11238141.94	3814272.82	18.61	8.69
								11238141.94	3814271.82	18.61	8.69
								11238148.11	3814272.57	18.61	8.64
								11238148.28	3814273.48	18.61	8.64
								11238152.86	3814273.98	18.61	8.61
								11238152.95	3814273.07	18.61	8.60
								11238160.89	3814273.86	18.61	8.58
								11238161.15	3814270.95	18.61	8.61
								11238162.54	3814271.08	18.61	8.61
								11238162.81	3814266.25	18.61	8.66
								11238165.25	3814266.45	18.61	8.66
								11238165.32	3814264.80	18.61	8.68
								11238162.87	3814264.66	18.61	8.68
								11238163.14	3814262.15	18.61	8.70
								11238166.25	3814262.55	18.61	8.71
								11238166.31	3814260.89	18.61	8.72
								11238164.13	3814260.69	18.61	8.72
								11238164.33	3814258.31	18.61	8.75
								11238166.64	3814258.51	18.61	8.75
								11238167.64	3814247.33	18.61	8.82
								11238167.64	3814246.00	18.61	8.81
								11238163.72	3814245.67	18.61	8.81
								11238163.89	3814241.75	18.61	8.78
								11238164.78	3814241.78	18.61	8.78
								11238165.04	3814238.54	18.61	8.76
								11238166.23	3814238.71	18.61	8.76
								11238166.30	3814237.48	18.61	8.75
								11238163.76	3814237.28	18.61	8.75
								11238164.02	3814234.21	18.61	8.72
								11238166.47	3814234.47	18.61	8.72
								11238166.66	3814232.95	18.61	8.71
								11238163.36	3814232.75	18.61	8.71
								11238163.42	3814229.77	18.61	8.69
								11238164.61	3814229.77	18.61	8.69
								11238164.75	3814227.19	18.61	8.67
								11238167.00	3814227.39	18.61	8.67
								11238167.59	3814220.78	18.61	8.66
								11238163.95	3814220.38	18.61	8.62
								11238164.27	3814217.23	18.61	8.59
								11238156.28	3814216.81	18.61	8.60
								11238156.18	3814215.44	18.61	8.59
								11238151.56	3814214.92	18.61	8.62
								11238151.45	3814216.18	18.61	8.62
								11238145.15	3814215.65	18.61	8.65
								11238145.25	3814214.60	18.61	8.65
								11238136.01	3814213.87	18.61	8.71
								11238136.01	3814214.60	18.61	8.71

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11238132.86	3814214.50	18.61	8.73
							11238132.54	3814218.38	18.61	8.73
							11238126.87	3814218.07	18.61	8.77
							11238127.40	3814213.03	18.61	8.78
							11238120.78	3814212.50	18.61	8.82
							11238120.58	3814215.48	18.61	8.81
							11238117.10	3814215.13	18.61	8.84
							11238116.49	3814220.84	18.61	8.83
							11238117.73	3814220.90	18.61	8.82
							11238117.52	3814223.95	18.61	8.82
							11238118.78	3814224.05	18.61	8.81
							11238118.50	3814226.50	18.61	8.81
							11238116.47	3814226.37	18.61	8.82
							11238116.05	3814232.93	18.61	8.82
							11238119.15	3814233.30	18.61	8.80
							11238118.89	3814236.34	18.61	8.81
							11238126.87	3814236.97	18.61	8.80
							11238127.06	3814235.74	18.61	8.79
							11238130.34	3814236.03	18.61	8.79
							11238130.23	3814237.29	18.61	8.80
							11238135.07	3814237.81	18.61	8.79
							11238135.16	3814236.77	18.61	8.79
							11238137.87	3814236.95	18.61	8.78
							11238137.94	3814238.01	18.61	8.79
							11238142.84	3814238.34	18.61	8.79
							11238142.93	3814236.78	18.61	8.77
							11238145.70	3814237.04	18.61	8.77
							11238145.57	3814238.45	18.61	8.78
							11238151.09	3814238.63	18.61	8.78
							11238151.37	3814235.03	18.61	8.75
							11238154.39	3814235.19	18.61	8.75
							11238153.66	3814241.91	18.61	8.80
							11238151.03	3814241.70	18.61	8.80
							11238150.79	3814244.75	18.61	8.82
							11238152.42	3814244.85	18.61	8.82
							11238152.29	3814247.48	18.61	8.84
							11238154.60	3814247.79	18.61	8.84
							11238153.93	3814254.00	18.61	8.77
							11238151.03	3814253.68	18.61	8.77
							11238151.24	3814250.00	18.61	8.81
							11238146.30	3814249.58	18.61	8.80
							11238146.24	3814250.82	18.61	8.79
							11238142.93	3814250.81	18.61	8.78
							11238143.05	3814248.84	18.61	8.80
							11238138.53	3814248.42	18.61	8.80
							11238138.53	3814249.37	18.61	8.79
							11238131.60	3814248.74	18.61	8.78
							11238131.49	3814247.79	18.61	8.79
							11238122.57	3814247.06	18.61	8.78
							11238122.57	3814247.79	18.61	8.78
							11238119.62	3814247.69	18.61	8.81
							11238119.83	3814246.43	18.61	8.80
							11238111.96	3814245.80	18.61	8.85
							11238111.75	3814248.53	18.61	8.86
							11238110.17	3814248.63	18.61	8.85
							11238109.75	3814253.57	18.61	8.86
							11238107.44	3814253.47	18.61	8.85
							11238107.23	3814254.94	18.61	8.85
							11238109.65	3814255.15	18.61	8.86
							11238109.44	3814257.67	18.61	8.87
							11238108.17	3814257.77	18.61	8.86
							11238108.17	3814260.61	18.61	8.86
							11238106.70	3814260.61	18.61	8.85

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		4.60	r	11238097.36	3814231.78	13.44	8.84
								11238106.36	3814232.57	13.44	8.84
								11238107.15	3814224.83	13.44	8.84
								11238110.06	3814225.16	13.44	8.84
								11238110.59	3814216.69	13.44	8.84
								11238107.68	3814216.44	13.44	8.84
								11238108.21	3814210.54	13.44	8.84
								11238104.31	3814210.14	13.44	8.84
								11238104.24	3814211.66	13.44	8.84
								11238100.20	3814211.26	13.44	8.84
								11238099.94	3814213.25	13.44	8.84
								11238096.56	3814212.92	13.44	8.84
								11238097.03	3814209.74	13.44	8.84
								11238088.95	3814208.88	13.44	8.87
								11238088.23	3814214.70	13.44	8.86
								11238080.15	3814214.17	13.44	9.07
								11238079.56	3814222.05	13.44	8.98
								11238098.22	3814223.90	13.44	8.84
			x	0		6.70	r	11237905.46	3814205.38	18.34	11.64
								11237914.47	3814205.18	18.34	11.59
								11237914.43	3814204.36	18.34	11.58
								11237923.12	3814203.86	18.34	11.53
								11237923.13	3814204.51	18.34	11.54
								11237932.31	3814203.84	18.34	11.50
								11237932.04	3814199.06	18.34	11.50
								11237932.94	3814199.01	18.34	11.50
								11237932.73	3814195.02	18.34	11.50
								11237927.74	3814195.33	18.34	11.50
								11237927.74	3814193.13	18.34	11.50
								11237929.89	3814192.97	18.34	11.50
								11237929.06	3814180.72	18.34	11.50
								11237926.72	3814181.05	18.34	11.50
								11237926.64	3814176.71	18.34	11.50
								11237928.76	3814176.52	18.34	11.50
								11237927.92	3814163.93	18.34	11.50
								11237925.76	3814164.09	18.34	11.50
								11237925.76	3814160.17	18.34	11.50
								11237927.84	3814159.92	18.34	11.50
								11237927.34	3814148.00	18.34	11.50
								11237925.09	3814148.17	18.34	11.50
								11237924.92	3814146.00	18.34	11.50
								11237929.92	3814145.67	18.34	11.50
								11237929.63	3814141.37	18.34	11.50
								11237928.38	3814141.37	18.34	11.50
								11237928.34	3814137.33	18.34	11.50
								11237921.63	3814137.66	18.34	11.51
								11237921.59	3814136.87	18.34	11.52
								11237919.59	3814137.00	18.34	11.52
								11237919.59	3814137.96	18.34	11.52
								11237910.66	3814138.46	18.34	11.55
								11237910.54	3814137.66	18.34	11.55
								11237908.40	3814137.96	18.34	11.56
								11237908.44	3814138.69	18.34	11.55
								11237901.91	3814139.04	18.34	11.58
								11237902.12	3814143.33	18.34	11.55
								11237901.04	3814143.33	18.34	11.56
								11237901.24	3814147.42	18.34	11.53
								11237906.23	3814147.16	18.34	11.52
								11237906.41	3814149.29	18.34	11.50
								11237904.08	3814149.46	18.34	11.51
								11237904.83	3814161.72	18.34	11.50
								11237907.25	3814161.55	18.34	11.50
								11237907.41	3814165.64	18.34	11.50

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237905.16	3814165.89	18.34	11.50
								11237906.00	3814177.97	18.34	11.50
								11237907.83	3814177.81	18.34	11.50
								11237908.08	3814182.06	18.34	11.50
								11237906.08	3814182.48	18.34	11.50
								11237906.87	3814194.52	18.34	11.52
								11237909.12	3814194.26	18.34	11.50
								11237909.19	3814196.57	18.34	11.53
								11237904.19	3814196.84	18.34	11.55
								11237904.45	3814201.12	18.34	11.60
								11237905.35	3814201.07	18.34	11.60
			x	0		9.75	r	11238039.03	3814154.34	18.89	9.14
								11238038.54	3814160.90	18.89	9.27
								11238040.69	3814161.10	18.89	9.28
								11238040.44	3814163.68	18.89	9.32
								11238039.44	3814163.68	18.89	9.31
								11238039.28	3814166.27	18.89	9.35
								11238037.86	3814166.27	18.89	9.34
								11238037.61	3814172.19	18.89	9.43
								11238040.94	3814172.44	18.89	9.45
								11238040.69	3814175.94	18.89	9.50
								11238047.20	3814176.27	18.89	9.55
								11238047.61	3814171.52	18.89	9.48
								11238052.53	3814171.94	18.89	9.48
								11238052.12	3814176.94	18.89	9.58
								11238057.20	3814177.35	18.89	9.59
								11238057.28	3814176.52	18.89	9.57
								11238063.29	3814176.94	18.89	9.55
								11238063.20	3814178.02	18.89	9.57
								11238067.87	3814178.52	18.89	9.55
								11238068.29	3814176.06	18.89	9.50
								11238073.42	3814176.44	18.89	9.48
								11238073.29	3814177.35	18.89	9.50
								11238077.13	3814177.77	18.89	9.45
								11238077.09	3814178.52	18.89	9.46
								11238080.05	3814178.77	18.89	9.42
								11238079.96	3814179.77	18.89	9.43
								11238089.63	3814180.36	18.89	9.31
								11238089.80	3814179.48	18.89	9.30
								11238092.47	3814179.69	18.89	9.27
								11238092.89	3814176.02	18.89	9.23
								11238098.22	3814176.52	18.89	9.16
								11238097.64	3814181.11	18.89	9.21
								11238104.47	3814181.69	18.89	9.13
								11238104.61	3814178.58	18.89	9.10
								11238108.51	3814178.91	18.89	9.06
								11238108.97	3814173.35	18.89	9.01
								11238107.44	3814173.24	18.89	9.01
								11238108.78	3814158.07	18.89	8.86
								11238042.87	3814151.71	18.89	9.08
								11238042.54	3814154.56	18.89	9.14
			x	0		9.75	r	11237904.07	3814078.49	17.44	7.69
								11237909.95	3814086.21	17.44	7.65
								11237912.05	3814084.16	17.44	7.65
								11237913.15	3814085.47	17.44	7.65
								11237912.42	3814086.21	17.44	7.67
								11237917.51	3814092.72	17.44	7.64
								11237924.66	3814086.79	17.44	7.57
								11237926.07	3814088.52	17.44	7.59
								11237928.99	3814085.74	17.44	7.58
								11237929.44	3814086.26	17.44	7.59
								11237937.05	3814079.91	17.44	7.58
								11237936.21	3814078.86	17.44	7.57

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11237938.31	3814077.12	17.44	7.57
							11237938.68	3814077.60	17.44	7.58
							11237942.20	3814074.81	17.44	7.57
							11237941.25	3814073.66	17.44	7.56
							11237946.14	3814069.72	17.44	7.56
							11237946.77	3814070.35	17.44	7.57
							11237948.66	3814068.56	17.44	7.56
							11237949.60	3814069.46	17.44	7.57
							11237957.06	3814063.26	17.44	7.58
							11237956.22	3814062.21	17.44	7.58
							11237958.47	3814060.48	17.44	7.58
							11237955.38	3814056.64	17.44	7.55
							11237956.54	3814055.59	17.44	7.55
							11237958.64	3814057.90	17.44	7.57
							11237965.99	3814052.23	17.44	7.57
							11237964.24	3814049.73	17.44	7.54
							11237965.57	3814048.56	17.44	7.53
							11237920.72	3813989.94	17.44	6.81
							11237912.53	3813997.09	17.44	6.88
							11237914.31	3813999.19	17.44	6.88
							11237913.05	3814000.03	17.44	6.90
							11237911.37	3813997.82	17.44	6.90
							11237903.81	3814004.23	17.44	7.02
							11237905.59	3814006.44	17.44	7.02
							11237904.33	3814007.17	17.44	7.04
							11237907.69	3814011.16	17.44	7.03
							11237909.27	3814009.80	17.44	7.01
							11237910.95	3814012.00	17.44	7.01
							11237910.00	3814012.74	17.44	7.03
							11237911.90	3814014.94	17.44	7.03
							11237910.85	3814015.89	17.44	7.04
							11237917.15	3814023.66	17.44	7.06
							11237918.30	3814022.82	17.44	7.04
							11237921.67	3814027.13	17.44	7.09
							11237920.51	3814028.08	17.44	7.10
							11237926.39	3814036.27	17.44	7.22
							11237927.55	3814035.32	17.44	7.21
							11237930.70	3814039.32	17.44	7.27
							11237929.33	3814040.58	17.44	7.28
							11237932.51	3814044.55	17.44	7.34
							11237933.24	3814044.08	17.44	7.34
							11237935.69	3814047.39	17.44	7.39
							11237937.14	3814045.67	17.44	7.37
							11237938.00	3814046.60	17.44	7.39
							11237938.67	3814046.10	17.44	7.38
							11237941.09	3814049.27	17.44	7.43
							11237942.17	3814049.35	17.44	7.44
							11237941.92	3814050.18	17.44	7.44
							11237942.09	3814051.85	17.44	7.46
							11237939.17	3814053.60	17.44	7.46
							11237938.42	3814053.18	17.44	7.46
							11237935.42	3814055.77	17.44	7.45
							11237934.75	3814055.02	17.44	7.44
							11237934.08	3814055.52	17.44	7.44
							11237932.58	3814053.52	17.44	7.43
							11237929.00	3814056.35	17.44	7.42
							11237929.75	3814057.27	17.44	7.43
							11237927.91	3814058.69	17.44	7.43
							11237927.16	3814057.35	17.44	7.42
							11237919.33	3814063.94	17.44	7.42
							11237920.08	3814064.77	17.44	7.43
							11237916.03	3814068.10	17.44	7.43
							11237915.17	3814067.34	17.44	7.44

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237914.16	3814068.44	17.44	7.47
								11237915.82	3814070.11	17.44	7.45
								11237914.10	3814071.65	17.44	7.50
								11237913.49	3814070.86	17.44	7.50
								11237909.55	3814074.43	17.44	7.61
								11237909.97	3814074.85	17.44	7.60
								11237907.93	3814076.62	17.44	7.66
								11237906.24	3814074.64	17.44	7.67
								11237905.33	3814075.52	17.44	7.69
								11237906.14	3814076.48	17.44	7.69
			x	0		4.60	r	11237881.78	3814008.79	11.88	7.28
								11237891.07	3814025.96	11.88	7.31
								11237893.17	3814024.65	11.88	7.28
								11237893.49	3814025.39	11.88	7.28
								11237895.54	3814024.13	11.88	7.25
								11237895.22	3814023.60	11.88	7.25
								11237897.43	3814022.39	11.88	7.22
								11237899.74	3814021.08	11.88	7.19
								11237895.70	3814013.52	11.88	7.17
								11237898.69	3814011.78	11.88	7.13
								11237895.49	3814005.48	11.88	7.11
								11237897.74	3814004.22	11.88	7.08
								11237895.07	3813999.55	11.88	7.15
								11237893.17	3814000.70	11.88	7.17
								11237892.65	3813999.81	11.88	7.18
								11237891.39	3814000.91	11.88	7.19
								11237890.50	3813999.28	11.88	7.23
								11237887.71	3814001.23	11.88	7.25
								11237888.34	3814002.59	11.88	7.23
								11237886.92	3814003.38	11.88	7.24
								11237887.34	3814004.11	11.88	7.23
								11237883.93	3814006.11	11.88	7.27
								11237884.56	3814007.11	11.88	7.25
			x	0		9.75	r	11237824.66	3813980.79	17.23	7.48
								11237875.27	3813944.25	17.23	7.41
								11237897.74	3813973.02	17.23	7.33
								11237883.25	3813983.52	17.23	7.31
								11237871.49	3813968.61	17.23	7.42
								11237835.16	3813995.91	17.23	7.33

Geometrie Höhenlinien

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237871.28	3814268.78	13.40
						11237882.03	3814269.78	11.90
						11237895.54	3814270.95	11.60
						11237910.79	3814272.20	11.00
						11237946.38	3814275.70	11.00
						11237960.87	3814277.35	10.70
						11238006.05	3814281.45	10.50
						11238074.42	3814287.97	10.10
						11238128.34	3814292.90	9.15
						11238169.52	3814296.90	8.54
						11238187.85	3814298.40	9.15
						11238186.80	3814204.20	7.93
						11237865.11	3814280.70	12.20
						11237919.09	3814284.91	11.00
						11238073.25	3814299.82	11.00
						11238250.89	3814315.71	10.10
						11237881.92	3814269.56	11.90
						11237880.84	3814250.05	13.10

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237880.31	3814214.13	13.10
						11237879.47	3814200.69	13.40
						11237878.61	3814185.47	13.70
						11237876.44	3814158.13	12.80
						11237869.11	3814116.46	13.40
						11237862.61	3814092.28	14.90
						11237859.87	3814081.36	14.00
						11237854.83	3814065.92	13.70
						11237846.22	3814043.24	12.30
						11237832.15	3814014.88	11.90
						11237818.29	3813991.15	10.80
						11237902.99	3814212.44	11.60
						11237901.21	3814224.35	11.50
						11237900.28	3814243.40	11.50
						11237902.00	3814246.57	11.50
						11237950.17	3814249.75	11.00
						11237953.34	3814243.13	11.00
						11237958.77	3814244.06	11.00
						11237960.35	3814251.21	10.90
						11237989.86	3814253.46	10.90
						11238007.73	3814255.18	10.70
						11238009.71	3814251.60	10.70
						11238012.09	3814224.48	11.30
						11238004.75	3814221.37	11.30
						11237962.54	3814218.13	11.00
						11237942.76	3814216.34	11.00
						11237905.17	3814212.56	11.60
						11238034.49	3814231.70	10.40
						11238032.99	3814240.04	10.50
						11238032.90	3814255.29	10.40
						11238037.07	3814258.71	10.40
						11238071.50	3814261.46	9.76
						11238099.75	3814264.05	8.84
						11238103.51	3814259.21	8.84
						11238102.92	3814241.21	8.84
						11238097.59	3814236.29	8.84
						11238036.24	3814231.12	10.40
						11238112.56	3814239.62	8.84
						11238108.46	3814246.89	8.84
						11238105.41	3814257.35	8.84
						11238103.30	3814270.71	8.84
						11238114.15	3814274.15	8.93
						11238162.18	3814277.99	8.54
						11238169.19	3814272.83	8.54
						11238172.37	3814250.73	8.84
						11238172.50	3814218.98	8.84
						11238164.30	3814210.64	8.54
						11238121.56	3814208.39	8.84
						11238114.94	3814217.25	8.84
						11238112.16	3814239.35	8.84
						11238112.72	3814207.99	8.84
						11238091.71	3814201.80	8.84
						11238077.95	3814210.62	9.15
						11238074.07	3814220.91	8.99
						11238085.10	3814231.21	8.84
						11238099.06	3814234.46	8.84
						11238035.65	3814154.34	9.15
						11238032.74	3814175.25	9.45
						11238059.21	3814185.97	9.76
						11238107.77	3814188.61	9.15
						11238122.06	3814164.66	9.15
						11238120.07	3814155.53	9.15
						11237903.76	3814209.71	11.70

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237902.44	3814191.06	11.50
						11237901.25	3814153.21	11.50
						11237899.92	3814136.14	11.60
						11237930.89	3814133.89	11.50
						11237935.25	3814206.67	11.50
						11237933.93	3814132.97	11.50
						11237963.18	3814143.95	11.00
						11237993.61	3814171.60	9.45
						11238023.78	3814173.72	9.76
						11237898.20	3814133.45	11.00
						11237897.36	3814121.11	8.54
						11237893.03	3814100.94	7.62
						11237880.03	3814067.93	7.62
						11237861.35	3814016.74	7.62
						11237844.60	3814008.66	7.32
						11237824.93	3813996.32	7.32
						11237916.25	3814099.08	7.93
						11237901.43	3814082.14	7.62
						11237900.90	3814072.35	7.74
						11237912.78	3814050.56	7.32
						11237892.08	3814029.08	7.32
						11237877.91	3814010.91	7.32
						11237871.24	3813998.24	7.26
						11237854.43	3813994.25	7.32
						11237831.96	3813999.08	7.30
						11237821.24	3813984.16	7.32
						11237825.75	3813978.00	7.56
						11237860.61	3813946.91	7.56
						11237881.20	3813937.25	7.32
						11237900.52	3813973.37	7.32
						11237925.85	3813991.70	6.71
						11237971.28	3814054.17	7.62
						11237957.78	3814072.04	7.62
						11237921.26	3814097.71	7.62
						11237984.06	3814104.64	11.30
						11238018.30	3814121.86	10.40
						11238056.65	3814140.87	8.84
						11238109.00	3814156.21	8.84

Geometrie Bruchkanten

Name	M.	ID	Coordinates	
			x	y
			(m)	(m)

Bericht (Cumltv plus Prj First Floor Rcvrs.cna)

Gruppentabelle Tag und Nacht

Name	Expression	R 7-1A		R 7-2A		R 7-3A		R 7-4A		R 7-5A		R 7-6A		R 7-7A		R 7-8A		R 7-9A	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night

Source																				
Name	M.	ID	R 7-1A		R 7-2A		R 7-3A		R 7-4A		R 7-5A		R 7-6A		R 7-7A		R 7-8A			
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night		
Los Carneros Road															18.5		36.1			
US 101 SB Onramp									46.7		50.6	-83.8	48.0	-86.7	44.2		20.0			
US 101 SB Offramp																	-10.3			
US 101 SB											36.5		36.7		22.2		11.9			
US 101 SB			59.8	-84.5	59.8	-84.4	59.3	-84.7	58.5	-86.2	53.1		49.8		45.1		28.2			
US 101 NB			53.9		52.5		52.5		51.6		49.7		47.2		43.0		26.3			
US 101 NB											34.4		37.9		21.3		10.8			
UPRR			49.5	49.5	49.9	49.9	50.3	50.3	50.8	50.8	51.1	51.1	31.8	31.8	32.7	32.7	31.0	31.0		
UPRR			66.8	66.8	66.8	66.8	66.7	66.7	66.3	66.3	63.1	63.1	59.5	59.5	54.2	54.2	43.0	43.0		

Schallquellen

Punktquellen

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night	
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)

Linienquellen

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen vertikal

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Schienen

Name	M.	ID	Lm,E		Train Class	Add.Level				Vmax
			Day	Night		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0						
UPRR			78.0	78.0						

Zugklassen

Name	M.	ID	Lm,E		Train Class											Add.Level				Vmax
			Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night	(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0																
UPRR			78.0	78.0																

Name	Lm,E		Train Class									
	Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)	
	(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night

Parkplätze

Name	M.	ID	Type	Lwa			Event Data						Penalty Type		Penalty Surface		A
				Day	Special	Night	Ref. Quantity	Number B	No. Spaces/RefQ	Events/h/RefQ			Kpa	Type	Kstro	Surface	
				(dBA)	(dBA)	(dBA)				Day	Special	Night	(dB)		(dB)		

Strassen

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	S
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Ds
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(d
Los Carneros Road			70.2	0.0	0.0			3333.0	0.0	0.0	5.0	0.0	0.0	72		RQ 20	
US 101 SB Onramp			66.2	0.0	0.0			1339.0	0.0	0.0	5.0	0.0	0.0	72		RQ 12	
US 101 SB Offramp			61.8	0.0	0.0			190.0	0.0	0.0	5.0	0.0	0.0	100		RQ 12	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	

Ampeln

Name	M.	ID	Active			Height	Coordinates		
			Day	Evening	Night	Begin	X	Y	Z
						(m)	(m)	(m)	(m)

Immissionspunkte

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 7-1A			67.8	66.8	0.0	0.0		x	Total	1.50	r	11238158.88	3814274.45	10.07
R 7-2A			67.8	66.9	0.0	0.0		x	Total	1.50	r	11238145.19	3814273.08	10.17
R 7-3A			67.7	66.8	0.0	0.0		x	Total	1.50	r	11238128.68	3814272.48	10.30
R 7-4A			67.2	66.4	0.0	0.0		x	Total	1.50	r	11238111.97	3814270.98	10.41
R 7-5A			64.2	63.4	0.0	0.0		x	Total	1.50	r	11238105.86	3814263.69	10.35
R 7-6A			60.5	59.5	0.0	0.0		x	Total	1.50	r	11238107.53	3814258.72	10.36
R 7-7A			55.4	54.2	0.0	0.0		x	Total	1.50	r	11238109.36	3814250.46	10.35
R 7-8A			44.3	43.3	0.0	0.0		x	Total	1.50	r	11238117.34	3814245.69	10.32
R 7-9A			44.1	43.2	0.0	0.0		x	Total	1.50	r	11238129.68	3814247.19	10.29
R 7-10A			48.3	47.6	0.0	0.0		x	Total	1.50	r	11238139.98	3814238.42	10.29
R 7-11A			48.2	47.5	0.0	0.0		x	Total	1.50	r	11238132.71	3814238.00	10.30
R 7-12A			48.4	47.3	0.0	0.0		x	Total	1.50	r	11238122.29	3814237.03	10.31
R 7-13A			54.6	53.0	0.0	0.0		x	Total	1.50	r	11238115.68	3814231.37	10.33
R 7-14A			53.8	52.2	0.0	0.0		x	Total	1.50	r	11238117.37	3814222.06	10.32
R 7-15A			45.5	44.7	0.0	0.0		x	Total	1.50	r	11238124.18	3814211.84	10.30
R 7-16A			59.3	57.1	0.0	0.0		x	Total	1.50	r	11238167.78	3814224.98	10.17
R 7-17A			53.7	52.8	0.0	0.0		x	Total	1.50	r	11238165.37	3814240.73	10.27
R 7-18A			62.9	60.8	0.0	0.0		x	Total	1.50	r	11238167.76	3814253.05	10.31
R 7-19A			64.6	63.1	0.0	0.0		x	Total	1.50	r	11238163.26	3814267.75	10.15
R 8-1A			66.2	65.3	0.0	0.0		x	Total	1.50	r	11238095.94	3814262.98	10.46
R 8-2A			66.3	65.4	0.0	0.0		x	Total	1.50	r	11238091.05	3814262.56	10.62

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 8-3A			66.3	65.4	0.0	0.0		x	Total	1.50	r	11238082.91	3814260.93	10.88
R 8-4A			66.7	65.7	0.0	0.0		x	Total	1.50	r	11238077.03	3814261.14	11.08
R 8-5A			66.7	65.7	0.0	0.0		x	Total	1.50	r	11238070.78	3814259.57	11.26
R 8-6A			66.4	65.3	0.0	0.0		x	Total	1.50	r	11238063.82	3814257.53	11.41
R 8-7A			66.9	65.9	0.0	0.0		x	Total	1.50	r	11238058.76	3814259.29	11.50
R 8-8A			67.0	66.0	0.0	0.0		x	Total	1.50	r	11238051.34	3814258.62	11.64
R 8-9A			67.2	66.1	0.0	0.0		x	Total	1.50	r	11238044.92	3814258.04	11.76
R 8-10A			67.2	66.2	0.0	0.0		x	Total	1.50	r	11238038.91	3814257.62	11.87
R 8-11A			65.5	64.4	0.0	0.0		x	Total	1.50	r	11238035.70	3814252.75	11.93
R 8-12A			57.1	55.3	0.0	0.0		x	Total	1.50	r	11238036.20	3814245.83	11.93
R 8-13A			63.0	61.7	0.0	0.0		x	Total	1.50	r	11238034.70	3814242.25	11.97
R 8-14A			63.0	61.7	0.0	0.0		x	Total	1.50	r	11238034.12	3814238.16	11.97
R 8-15A			46.5	45.5	0.0	0.0		x	Total	1.50	r	11238037.20	3814235.58	11.90
R 8-16A			44.8	42.7	0.0	0.0		x	Total	1.50	r	11238041.79	3814233.08	11.77
R 8-17A			44.7	42.8	0.0	0.0		x	Total	1.50	r	11238050.79	3814234.66	11.55
R 8-18A			44.2	42.3	0.0	0.0		x	Total	1.50	r	11238073.05	3814235.66	10.98
R 8-19A			44.5	42.3	0.0	0.0		x	Total	1.50	r	11238092.32	3814237.58	10.49
R 8-20A			45.5	42.3	0.0	0.0		x	Total	1.50	r	11238097.48	3814238.25	10.35
R 8-21A			45.2	44.4	0.0	0.0		x	Total	1.50	r	11238099.57	3814242.92	10.34
R 8-22A			45.4	44.6	0.0	0.0		x	Total	1.50	r	11238099.32	3814249.25	10.34
R 8-23A			44.6	44.1	0.0	0.0		x	Total	1.50	r	11238100.15	3814252.50	10.34
R 8-24A			62.4	61.2	0.0	0.0		x	Total	1.50	r	11238100.82	3814257.51	10.34
R 5-1A			67.1	66.1	0.0	0.0		x	Total	1.50	r	11238006.18	3814253.15	12.23
R 5-2A			67.6	66.6	0.0	0.0		x	Total	1.50	r	11238001.34	3814253.81	12.28
R 5-3A			67.2	66.1	0.0	0.0		x	Total	1.50	r	11237996.01	3814250.31	12.38
R 5-4A			67.4	66.3	0.0	0.0		x	Total	1.50	r	11237988.02	3814249.60	12.42
R 5-5A			66.1	64.9	0.0	0.0		x	Total	1.50	r	11237984.83	3814247.14	12.42
R 5-6A			67.4	66.3	0.0	0.0		x	Total	1.50	r	11237979.50	3814249.06	12.43
R 5-7A			67.1	65.9	0.0	0.0		x	Total	1.50	r	11237972.41	3814248.34	12.45
R 5-8A			67.6	66.6	0.0	0.0		x	Total	1.50	r	11237966.91	3814250.73	12.41
R 5-9A			67.4	66.4	0.0	0.0		x	Total	1.50	r	11237962.02	3814249.08	12.43
R 5-10A			64.5	63.4	0.0	0.0		x	Total	1.50	r	11237960.24	3814244.31	12.50
R 5-11A			61.6	60.3	0.0	0.0		x	Total	1.50	r	11237961.24	3814232.50	12.50
R 5-12A			60.0	58.6	0.0	0.0		x	Total	1.50	r	11237962.10	3814224.53	12.50
R 5-13A			49.0	45.2	0.0	0.0		x	Total	1.50	r	11237965.48	3814220.85	12.50
R 5-14A			49.7	44.8	0.0	0.0		x	Total	1.50	r	11237969.18	3814220.11	12.53
R 5-15A			46.3	45.3	0.0	0.0		x	Total	1.50	r	11237984.40	3814224.30	12.62
R 5-16A			48.2	44.9	0.0	0.0		x	Total	1.50	r	11238003.88	3814223.39	12.77
R 5-17A			46.7	45.5	0.0	0.0		x	Total	1.50	r	11238008.63	3814224.56	12.77
R 5-18A			63.3	60.7	0.0	0.0		x	Total	1.50	r	11238010.32	3814229.42	12.68
R 5-19A			64.0	61.7	0.0	0.0		x	Total	1.50	r	11238009.29	3814238.06	12.49
R 5-20A			65.0	63.3	0.0	0.0		x	Total	1.50	r	11238008.49	3814249.18	12.26
R4-1A			64.6	62.9	0.0	0.0		x	Total	1.50	r	11237949.84	3814242.00	12.50
R4-2A			67.3	66.4	0.0	0.0		x	Total	1.50	r	11237947.43	3814247.77	12.52
R4-3A			67.5	66.6	0.0	0.0		x	Total	1.50	r	11237941.96	3814248.40	12.58
R4-4A			67.1	66.2	0.0	0.0		x	Total	1.50	r	11237937.34	3814245.25	12.62
R4-5A			67.3	66.3	0.0	0.0		x	Total	1.50	r	11237929.36	3814244.20	12.71
R4-6A			66.0	65.0	0.0	0.0		x	Total	1.50	r	11237924.74	3814241.89	12.75
R4-7A			67.3	66.4	0.0	0.0		x	Total	1.50	r	11237921.16	3814243.89	12.79
R4-8A			66.9	65.6	0.0	0.0		x	Total	1.50	r	11237913.18	3814243.26	12.87
R4-9A			67.5	66.4	0.0	0.0		x	Total	1.50	r	11237907.93	3814245.36	12.93
R4-10A			67.1	66.0	0.0	0.0		x	Total	1.50	r	11237903.22	3814243.82	12.98
R4-11A			64.7	62.7	0.0	0.0		x	Total	1.50	r	11237901.39	3814239.15	13.00
R4-12A			64.4	62.2	0.0	0.0		x	Total	1.50	r	11237901.89	3814232.81	13.00
R4-13A			64.3	61.9	0.0	0.0		x	Total	1.50	r	11237902.64	3814226.72	12.98
R4-14A			64.3	61.9	0.0	0.0		x	Total	1.50	r	11237903.14	3814220.22	13.03
R4-15A			59.6	46.3	0.0	0.0		x	Total	1.50	r	11237905.89	3814215.30	13.05
R4-16A			59.3	46.2	0.0	0.0		x	Total	1.50	r	11237910.23	3814214.63	13.00
R4-17A			52.8	45.6	0.0	0.0		x	Total	1.50	r	11237915.31	3814218.22	12.88
R4-18A			54.0	45.3	0.0	0.0		x	Total	1.50	r	11237923.65	3814218.89	12.75
R4-19A			53.0	45.2	0.0	0.0		x	Total	1.50	r	11237931.41	3814219.39	12.64
R4-20A			52.0	44.8	0.0	0.0		x	Total	1.50	r	11237938.41	3814220.14	12.55
R4-21A			51.5	44.6	0.0	0.0		x	Total	1.50	r	11237944.50	3814217.80	12.50

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R4-22A			46.6	44.8	0.0	0.0		x	Total	1.50	r	11237949.25	3814219.14	12.50
R4-23A			60.5	58.8	0.0	0.0		x	Total	1.50	r	11237951.00	3814224.81	12.50
R4-24A			62.8	61.0	0.0	0.0		x	Total	1.50	r	11237950.00	3814235.23	12.50
R3-1A			58.2	56.8	0.0	0.0		x	Total	1.50	r	11237930.46	3814204.31	13.00
R3-2A			59.2	57.7	0.0	0.0		x	Total	1.50	r	11237924.19	3814204.84	13.04
R3-3A			62.1	60.6	0.0	0.0		x	Total	1.50	r	11237913.90	3814205.68	13.10
R3-4A			64.0	61.8	0.0	0.0		x	Total	1.50	r	11237906.25	3814205.88	13.14
R3-5A			65.0	62.5	0.0	0.0		x	Total	1.50	r	11237903.92	3814198.64	13.08
R3-6A			64.7	62.1	0.0	0.0		x	Total	1.50	r	11237906.41	3814190.27	13.00
R3-7A			65.1	62.7	0.0	0.0		x	Total	1.50	r	11237905.92	3814184.34	13.00
R3-8A			65.3	63.1	0.0	0.0		x	Total	1.50	r	11237905.28	3814175.17	13.00
R3-9A			65.3	63.0	0.0	0.0		x	Total	1.50	r	11237904.78	3814168.33	13.00
R3-10A			65.2	62.9	0.0	0.0		x	Total	1.50	r	11237904.36	3814159.15	13.00
R3-11A			65.1	62.8	0.0	0.0		x	Total	1.50	r	11237903.89	3814152.34	13.00
R3-12A			65.2	62.9	0.0	0.0		x	Total	1.50	r	11237900.93	3814146.17	13.04
R3-13A			64.8	62.3	0.0	0.0		x	Total	1.50	r	11237901.77	3814140.17	13.07
R3-14A			57.7	43.8	0.0	0.0		x	Total	1.50	r	11237904.96	3814138.70	13.07
R3-15A			55.8	43.8	0.0	0.0		x	Total	1.50	r	11237916.26	3814137.67	13.03
R3-16A			54.4	43.3	0.0	0.0		x	Total	1.50	r	11237926.46	3814137.10	13.00
R3-17A			51.8	50.6	0.0	0.0		x	Total	1.50	r	11237930.11	3814142.83	13.00
R3-18A			51.1	50.4	0.0	0.0		x	Total	1.50	r	11237928.78	3814169.17	13.00
R3-19A			50.5	49.9	0.0	0.0		x	Total	1.50	r	11237929.78	3814185.83	13.00
R3-20A			51.0	50.2	0.0	0.0		x	Total	1.50	r	11237932.95	3814200.50	13.00
R2-1A			61.4	59.9	0.0	0.0		x	Total	1.50	r	11237916.87	3814093.05	9.14
R2-2A			61.2	59.8	0.0	0.0		x	Total	1.50	r	11237911.83	3814086.96	9.16
R2-3A			61.1	59.6	0.0	0.0		x	Total	1.50	r	11237907.84	3814085.07	9.15
R2-4A			60.9	59.5	0.0	0.0		x	Total	1.50	r	11237903.85	3814080.45	9.17
R2-5A			59.2	57.1	0.0	0.0		x	Total	1.50	r	11237905.11	3814076.46	9.20
R2-6A			52.5	43.7	0.0	0.0		x	Total	1.50	r	11237911.41	3814071.62	9.05
R2-7A			54.0	48.2	0.0	0.0		x	Total	1.50	r	11237917.71	3814065.53	8.92
R2-8A			55.1	51.6	0.0	0.0		x	Total	1.50	r	11237924.85	3814058.18	8.91
R2-9A			54.3	50.2	0.0	0.0		x	Total	1.50	r	11237931.15	3814054.19	8.92
R2-10A			51.4	40.5	0.0	0.0		x	Total	1.50	r	11237936.41	3814052.93	8.94
R2-11A			56.6	53.2	0.0	0.0		x	Total	1.50	r	11237933.89	3814046.84	8.87
R2-12A			58.0	55.9	0.0	0.0		x	Total	1.50	r	11237929.05	3814041.59	8.79
R2-13A			59.7	58.1	0.0	0.0		x	Total	1.50	r	11237922.96	3814033.40	8.67
R2-14A			59.9	58.6	0.0	0.0		x	Total	1.50	r	11237915.40	3814023.32	8.57
R2-15A			59.6	58.5	0.0	0.0		x	Total	1.50	r	11237910.36	3814016.60	8.56
R2-16A			56.6	55.6	0.0	0.0		x	Total	1.50	r	11237904.69	3814008.41	8.54
R2-17A			47.8	46.7	0.0	0.0		x	Total	1.50	r	11237905.53	3814001.90	8.48
R2-18A			48.3	45.7	0.0	0.0		x	Total	1.50	r	11237908.89	3813998.96	8.43
R2-19A			50.8	45.9	0.0	0.0		x	Total	1.50	r	11237914.35	3813994.34	8.38
R2-20A			50.0	45.0	0.0	0.0		x	Total	1.50	r	11237917.92	3813991.82	8.34
R2-21A			44.3	44.1	0.0	0.0		x	Total	1.50	r	11237925.48	3813995.60	8.25
R2-22A			44.4	44.2	0.0	0.0		x	Total	1.50	r	11237935.78	3814009.04	8.45
R2-23A			44.2	44.1	0.0	0.0		x	Total	1.50	r	11237947.96	3814024.79	8.68
R2-24A			44.5	44.3	0.0	0.0		x	Total	1.50	r	11237960.56	3814040.96	8.92
R2-25A			53.9	52.9	0.0	0.0		x	Total	1.50	r	11237962.45	3814056.29	9.08
R2-26A			58.2	57.1	0.0	0.0		x	Total	1.50	r	11237951.11	3814068.68	9.07
R2-27A			58.0	56.9	0.0	0.0		x	Total	1.50	r	11237956.15	3814064.69	9.08
R2-28A			58.2	57.2	0.0	0.0		x	Total	1.50	r	11237941.24	3814076.04	9.08
R2-29A			59.5	58.5	0.0	0.0		x	Total	1.50	r	11237935.57	3814081.92	9.09
R2-30A			60.8	59.7	0.0	0.0		x	Total	1.50	r	11237927.16	3814088.22	9.09
Pool Rec 1			59.9	57.8	0.0	0.0		x	Total	1.50	r	11237890.45	3814025.86	8.81
Pool Rec 2			60.2	58.4	0.0	0.0		x	Total	1.50	r	11237882.51	3814010.85	8.77
Pool Rec 3			57.4	56.3	0.0	0.0		x	Total	1.50	r	11237901.70	3814017.46	8.64
Pool Rec 4			60.1	58.3	0.0	0.0		x	Total	1.50	r	11237900.64	3814035.98	8.80
Pool Rec 5			60.3	58.8	0.0	0.0		x	Total	1.50	r	11237904.48	3814052.79	8.88
Pool Rec 6			56.6	52.2	0.0	0.0		x	Total	1.50	r	11237887.02	3814002.60	8.75
R6-1A			54.2	53.6	0.0	0.0		x	Total	1.50	r	11238102.76	3814182.07	10.66
R6-2A			54.8	54.0	0.0	0.0		x	Total	1.50	r	11238087.19	3814180.63	10.85
R6-3A			56.9	56.0	0.0	0.0		x	Total	1.50	r	11238054.90	3814177.76	11.10
R6-4A			57.4	56.2	0.0	0.0		x	Total	1.50	r	11238037.24	3814169.05	10.88

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R6-5A			56.9	55.7	0.0	0.0		x	Total	1.50	r	11238038.29	3814157.89	10.72
R6-6A			45.4	39.8	0.0	0.0		x	Total	1.50	r	11238050.67	3814151.80	10.57
Pool Rec 7			53.6	52.1	0.0	0.0		x	Total	1.50	r	11238056.23	3814218.08	11.20
Pool Rec 8			50.5	49.4	0.0	0.0		x	Total	1.50	r	11238090.15	3814224.92	10.34
Pool Rec 9			48.5	47.4	0.0	0.0		x	Total	1.50	r	11238095.64	3814229.01	10.34
Pool Rec 10			56.6	55.1	0.0	0.0		x	Total	1.50	r	11238104.64	3814233.36	10.34
Pool Rec 11			50.8	48.7	0.0	0.0		x	Total	1.50	r	11238098.44	3814232.67	10.34
Pool Rec 12			50.8	49.9	0.0	0.0		x	Total	1.50	r	11238079.26	3814220.55	10.50
Pool Rec 13			51.2	50.3	0.0	0.0		x	Total	1.50	r	11238079.65	3814215.96	10.57
Pool Rec 14			47.3	45.4	0.0	0.0		x	Total	1.50	r	11238085.08	3814213.94	10.44
Pool Rec 15			46.2	44.5	0.0	0.0		x	Total	1.50	r	11238091.30	3814208.91	10.34
Pool Rec 16			47.1	46.2	0.0	0.0		x	Total	1.50	r	11238105.19	3814209.84	10.34
Pool Rec 17			46.2	45.9	0.0	0.0		x	Total	1.50	r	11238108.37	3814214.20	10.34
Pool Rec 18			51.9	50.6	0.0	0.0		x	Total	1.50	r	11238110.80	3814220.79	10.34
Pool Rec 19			54.5	53.0	0.0	0.0		x	Total	1.50	r	11238106.91	3814228.75	10.34
Pool Rec 20			54.0	52.8	0.0	0.0		x	Total	1.50	r	11237986.96	3814210.37	12.32
Pool Rec 21			59.0	57.3	0.0	0.0		x	Total	1.50	r	11237957.55	3814208.80	12.47
Pool Rec 22			57.1	55.8	0.0	0.0		x	Total	1.50	r	11237953.26	3814188.06	12.45
Pool Rec 23			56.8	55.8	0.0	0.0		x	Total	1.50	r	11237995.10	3814185.06	11.44
Pool Rec 24			57.6	56.5	0.0	0.0		x	Total	1.50	r	11238006.27	3814175.23	11.18
Pool Rec 25			56.3	55.1	0.0	0.0		x	Total	1.50	r	11237988.46	3814166.84	11.21
Pool Rec 26			57.5	55.9	0.0	0.0		x	Total	1.50	r	11237973.91	3814133.63	12.49
Pool Rec 27			58.0	56.2	0.0	0.0		x	Total	1.50	r	11237992.23	3814117.48	12.44
R1-1A			60.2	55.8	0.0	0.0		x	Total	1.50	r	11237833.27	3813996.54	8.83
R1-2A			61.3	57.4	0.0	0.0		x	Total	1.50	r	11237824.45	3813983.73	8.91
R1-3A			58.1	40.2	0.0	0.0		x	Total	1.50	r	11237833.27	3813973.23	9.05
R1-4A			54.7	39.6	0.0	0.0		x	Total	1.50	r	11237867.71	3813948.03	9.00
R1-5A			43.1	42.8	0.0	0.0		x	Total	1.50	r	11237883.04	3813953.70	8.88
R1-6A			59.5	58.5	0.0	0.0		x	Total	1.50	r	11237889.97	3813979.95	8.81
R1-7A			60.3	59.1	0.0	0.0		x	Total	1.50	r	11237880.10	3813982.05	8.82
R1-8A			60.4	59.3	0.0	0.0		x	Total	1.50	r	11237872.75	3813973.02	8.89
R1-9A			60.5	59.5	0.0	0.0		x	Total	1.50	r	11237860.99	3813977.22	8.90
R1-10A			60.3	58.6	0.0	0.0		x	Total	1.50	r	11237843.77	3813990.45	8.88
Pool Rec 28			59.7	58.2	0.0	0.0		x	Total	1.50	r	11238038.23	3814220.11	11.73
Pool Rec 29			59.6	56.3	0.0	0.0		x	Total	1.50	r	11238004.69	3814209.22	12.37
ST_LT1			68.1	67.6	0.0	0.0		x	Total	1.50	r	11238077.99	3814278.44	11.32

Gebietsausweisungen

Name	M.	ID	Type	Persons
				(1/km²)

Hindernisse

Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			
			left	right		horz.	vert.	Begin		End	
					(m)	(m)	(m)	(m)		(m)	

Häuser

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		3.65	r
			x	0		3.65	r
			x	0		6.70	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		4.60	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		9.75	r

Bewuchs

Name	M.	ID	Height
			(m)

Bebauung

Name	M.	ID	Type	Attenuation	B	m	Height
				dB/100m	%	1/m	(m)

Geometriedaten

Geometrie Linienquellen

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Flächenquellen

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Parkplätze

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Straßen

Name	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(m)	(%)
	(m)	(m)	(m)	(m)	(m)	(m)		
Los Carneros Road			11237697.29	3813908.86	7.62	7.60		
			11237759.07	3813961.83	10.67	10.70		
			11237782.99	3813989.66	10.67	11.00		
			11237808.40	3814029.18	12.50	12.50		
			11237829.81	3814079.44	12.80	14.00		
			11237845.52	3814131.11	14.33	16.00		
			11237849.30	3814230.44	14.94	18.50		
			11237851.61	3814289.45	16.76	21.30		
			11237854.07	3814329.87	18.29	21.50		
			11237857.43	3814385.23	18.29	18.29		
			11237861.66	3814452.97	16.46	16.46		
US 101 SB Onramp			11237862.91	3814329.11	14.33	21.50		
			11237917.30	3814334.68	14.63	19.00		
			11237998.36	3814343.08	14.63	15.80		
			11238188.34	3814363.72	10.36	12.20		
			11238396.35	3814383.05	9.75	10.40		
US 101 SB Offramp			11237577.38	3814297.86	12.19	12.19		
			11237682.81	3814309.20	14.33	14.33		
			11237760.93	3814317.60	14.33	18.00		
			11237844.93	3814327.68	14.00	21.50		
US 101 SB			11237580.17	3814319.88	12.80	12.80		

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		
					11237676.48	3814338.40	12.50	12.50		
					11237752.15	3814353.33	12.19	12.19		
					11237789.19	3814359.46	12.19	12.19		
					11237847.26	3814365.39	12.50	12.50		
US 101 SB					11237865.59	3814369.12	12.50	12.50		
					11237906.40	3814372.39	11.28	11.28		
					11237997.12	3814376.59	10.97	10.97		
					11238183.92	3814379.77	10.97	10.97		
					11238395.93	3814392.44	10.36	10.36		
US 101 NB					11238394.07	3814413.64	9.14	9.14		
					11238181.55	3814403.56	9.75	9.75		
					11237995.91	3814396.84	11.28	11.28		
					11237901.83	3814389.28	10.67	10.67		
					11237866.49	3814386.68	12.50	12.50		
US 101 NB					11237847.87	3814383.91	12.50	12.50		
					11237786.75	3814375.84	12.19	12.19		
					11237748.95	3814369.96	12.19	12.19		
					11237674.19	3814356.52	13.11	13.11		
					11237577.59	3814337.20	12.50	12.50		

Geometrie Schienen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)
UPRR	12.50	a	12.50	a	11237570.03	3814262.43	12.50	1.88
					11237838.85	3814285.11	12.50	11.38
UPRR	12.50	a	8.53	a	11237861.86	3814287.47	12.50	11.58
					11238395.28	3814332.85	8.53	0.89

Geometrie Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
			left	right		horz.	vert.	Begin		End		x	y	z	Ground
					(m)	(m)	(m)	(m)		(m)		(m)	(m)	(m)	(m)
												11237880.37	3814214.17	14.90	13.10
												11237881.18	3814251.51	14.90	13.10
												11237882.02	3814269.67	13.70	11.90
												11237895.41	3814270.84	13.40	11.60
												11237911.06	3814272.16	12.80	11.00
												11237945.61	3814275.47	12.80	11.00
												11237961.46	3814277.18	12.50	10.70
												11238006.41	3814281.33	12.30	10.50
												11238074.37	3814287.71	11.90	10.10
												11238128.78	3814292.54	10.95	9.15
												11238169.64	3814296.43	10.34	8.54
												11238187.40	3814297.69	10.95	9.15

Geometrie Häuser

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		3.65	r	11238188.92	3814297.40	12.80	9.15
								11238194.21	3814297.14	12.80	9.21
								11238193.42	3814235.75	12.80	8.41
								11238220.94	3814234.69	12.80	8.50
								11238220.67	3814227.01	12.80	8.34
								11238187.86	3814229.66	12.80	8.27
								11238189.18	3814297.40	12.80	9.15
			x	0		3.65	r	11238198.18	3814176.74	11.11	7.46
								11238200.30	3814224.10	11.11	8.31
								11238237.34	3814223.31	11.11	8.24
								11238236.55	3814196.05	11.11	7.69

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238223.32	3814196.32	11.11	7.71
								11238222.79	3814175.68	11.11	7.29
			x	0		6.70	r	11237903.99	3814215.91	18.27	11.57
								11237901.32	3814243.25	18.27	11.50
								11237905.31	3814243.57	18.27	11.46
								11237905.26	3814244.72	18.27	11.46
								11237909.41	3814244.98	18.27	11.42
								11237909.83	3814239.79	18.27	11.40
								11237911.82	3814239.94	18.27	11.38
								11237911.77	3814242.25	18.27	11.39
								11237923.27	3814243.15	18.27	11.27
								11237923.43	3814240.99	18.27	11.26
								11237927.52	3814241.41	18.27	11.22
								11237927.31	3814243.51	18.27	11.23
								11237939.07	3814244.68	18.27	11.11
								11237939.22	3814242.53	18.27	11.10
								11237941.17	3814242.68	18.27	11.08
								11237940.69	3814247.83	18.27	11.10
								11237944.63	3814248.15	18.27	11.05
								11237944.74	3814246.83	18.27	11.05
								11237948.73	3814247.15	18.27	11.01
								11237951.25	3814219.58	18.27	11.00
								11237947.26	3814219.27	18.27	11.00
								11237947.34	3814218.14	18.27	11.00
								11237943.38	3814217.89	18.27	11.00
								11237942.88	3814222.85	18.27	11.01
								11237941.01	3814222.81	18.27	11.03
								11237941.13	3814220.39	18.27	11.03
								11237913.61	3814218.28	18.27	11.40
								11237913.48	3814220.39	18.27	11.37
								11237911.36	3814220.19	18.27	11.41
								11237911.89	3814215.23	18.27	11.47
								11237907.92	3814214.84	18.27	11.53
								11237907.79	3814215.89	18.27	11.52
								11237903.82	3814215.50	18.27	11.57
			x	0		6.70	r	11237960.36	3814248.60	17.64	10.94
								11237964.18	3814248.92	17.64	10.94
								11237964.17	3814249.98	17.64	10.92
								11237968.27	3814250.40	17.64	10.92
								11237968.69	3814245.25	17.64	10.97
								11237970.58	3814245.46	17.64	10.96
								11237970.37	3814247.66	17.64	10.96
								11237982.13	3814248.71	17.64	10.93
								11237982.45	3814246.30	17.64	10.93
								11237986.44	3814246.72	17.64	10.93
								11237986.23	3814249.03	17.64	10.91
								11237997.99	3814249.98	17.64	10.87
								11237998.10	3814247.77	17.64	10.91
								11237999.99	3814247.98	17.64	10.88
								11237999.57	3814253.13	17.64	10.80
								11238004.30	3814253.65	17.64	10.75
								11238004.33	3814252.58	17.64	10.75
								11238007.69	3814252.90	17.64	10.71
								11238010.07	3814225.08	17.64	11.27
								11238006.19	3814224.87	17.64	11.24
								11238006.29	3814223.72	17.64	11.26
								11238002.14	3814223.44	17.64	11.26
								11238001.77	3814228.23	17.64	11.21
								11237999.88	3814228.13	17.64	11.20
								11238000.02	3814226.06	17.64	11.22
								11237972.62	3814223.61	17.64	11.03
								11237972.36	3814225.92	17.64	11.01
								11237970.47	3814225.82	17.64	10.99

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237971.00	3814220.46	17.64	11.05
								11237967.11	3814219.93	17.64	11.02
								11237966.80	3814221.40	17.64	11.00
								11237962.80	3814220.88	17.64	11.00
			x	0		9.75	r	11238034.68	3814235.95	20.20	10.45
								11238034.15	3814241.31	20.20	10.48
								11238035.41	3814241.31	20.20	10.45
								11238034.89	3814244.67	20.20	10.46
								11238036.99	3814244.88	20.20	10.42
								11238036.78	3814247.40	20.20	10.42
								11238034.26	3814247.29	20.20	10.46
								11238034.26	3814248.66	20.20	10.45
								11238036.57	3814248.97	20.20	10.42
								11238036.04	3814253.91	20.20	10.43
								11238037.51	3814254.12	20.20	10.40
								11238037.30	3814256.75	20.20	10.40
								11238046.44	3814257.59	20.20	10.23
								11238046.65	3814255.28	20.20	10.23
								11238048.96	3814255.49	20.20	10.18
								11238048.86	3814257.80	20.20	10.18
								11238060.52	3814258.85	20.20	9.97
								11238060.83	3814256.64	20.20	9.96
								11238065.56	3814257.06	20.20	9.87
								11238065.45	3814257.80	20.20	9.88
								11238069.44	3814258.11	20.20	9.78
								11238069.23	3814258.85	20.20	9.79
								11238072.65	3814259.11	20.20	9.71
								11238072.49	3814260.21	20.20	9.72
								11238081.66	3814261.05	20.20	9.43
								11238081.66	3814260.05	20.20	9.42
								11238084.75	3814260.46	20.20	9.32
								11238085.16	3814256.30	20.20	9.30
								11238090.42	3814257.05	20.20	9.13
								11238089.92	3814261.88	20.20	9.16
								11238096.58	3814262.38	20.20	8.94
								11238096.75	3814259.05	20.20	8.93
								11238100.34	3814259.38	20.20	8.84
								11238101.09	3814253.71	20.20	8.84
								11238099.67	3814253.54	20.20	8.84
								11238099.92	3814250.54	20.20	8.84
								11238098.84	3814250.54	20.20	8.84
								11238099.00	3814247.71	20.20	8.84
								11238101.42	3814247.96	20.20	8.84
								11238101.25	3814246.21	20.20	8.84
								11238098.84	3814246.04	20.20	8.84
								11238099.25	3814241.12	20.20	8.84
								11238098.42	3814241.12	20.20	8.84
								11238098.50	3814238.70	20.20	8.84
								11238090.33	3814237.95	20.20	9.05
								11238090.33	3814238.70	20.20	9.05
								11238087.16	3814238.54	20.20	9.13
								11238087.33	3814237.37	20.20	9.12
								11238078.16	3814236.45	20.20	9.35
								11238077.99	3814237.37	20.20	9.36
								11238074.66	3814237.12	20.20	9.45
								11238074.74	3814236.04	20.20	9.44
								11238069.91	3814235.79	20.20	9.56
								11238069.82	3814236.79	20.20	9.57
								11238063.74	3814236.12	20.20	9.73
								11238063.74	3814235.16	20.20	9.72
								11238054.52	3814234.22	20.20	9.95
								11238054.48	3814235.37	20.20	9.96
								11238045.56	3814234.62	20.20	10.19

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238045.56	3814233.62	20.20	10.18
								11238038.48	3814233.12	20.20	10.36
								11238038.14	3814236.12	20.20	10.38
			x	0		9.75	r	11238106.23	3814266.67	18.61	8.86
								11238109.59	3814266.88	18.61	8.88
								11238109.38	3814269.82	18.61	8.89
								11238116.31	3814270.66	18.61	8.90
								11238117.26	3814265.51	18.61	8.88
								11238122.10	3814265.85	18.61	8.84
								11238121.84	3814270.15	18.61	8.85
								11238124.75	3814270.28	18.61	8.83
								11238124.82	3814271.34	18.61	8.83
								11238134.15	3814272.07	18.61	8.76
								11238134.21	3814270.94	18.61	8.75
								11238137.45	3814271.34	18.61	8.73
								11238137.19	3814272.40	18.61	8.73
								11238141.94	3814272.82	18.61	8.69
								11238141.94	3814271.82	18.61	8.69
								11238148.11	3814272.57	18.61	8.64
								11238148.28	3814273.48	18.61	8.64
								11238152.86	3814273.98	18.61	8.61
								11238152.95	3814273.07	18.61	8.60
								11238160.89	3814273.86	18.61	8.58
								11238161.15	3814270.95	18.61	8.61
								11238162.54	3814271.08	18.61	8.61
								11238162.81	3814266.25	18.61	8.66
								11238165.25	3814266.45	18.61	8.66
								11238165.32	3814264.80	18.61	8.68
								11238162.87	3814264.66	18.61	8.68
								11238163.14	3814262.15	18.61	8.70
								11238166.25	3814262.55	18.61	8.71
								11238166.31	3814260.89	18.61	8.72
								11238164.13	3814260.69	18.61	8.72
								11238164.33	3814258.31	18.61	8.75
								11238166.64	3814258.51	18.61	8.75
								11238167.64	3814247.33	18.61	8.82
								11238167.64	3814246.00	18.61	8.81
								11238163.72	3814245.67	18.61	8.81
								11238163.89	3814241.75	18.61	8.78
								11238164.78	3814241.78	18.61	8.78
								11238165.04	3814238.54	18.61	8.76
								11238166.23	3814238.71	18.61	8.76
								11238166.30	3814237.48	18.61	8.75
								11238163.76	3814237.28	18.61	8.75
								11238164.02	3814234.21	18.61	8.72
								11238166.47	3814234.47	18.61	8.72
								11238166.66	3814232.95	18.61	8.71
								11238163.36	3814232.75	18.61	8.71
								11238163.42	3814229.77	18.61	8.69
								11238164.61	3814229.77	18.61	8.69
								11238164.75	3814227.19	18.61	8.67
								11238167.00	3814227.39	18.61	8.67
								11238167.59	3814220.78	18.61	8.66
								11238163.95	3814220.38	18.61	8.62
								11238164.27	3814217.23	18.61	8.59
								11238156.28	3814216.81	18.61	8.60
								11238156.18	3814215.44	18.61	8.59
								11238151.56	3814214.92	18.61	8.62
								11238151.45	3814216.18	18.61	8.62
								11238145.15	3814215.65	18.61	8.65
								11238145.25	3814214.60	18.61	8.65
								11238136.01	3814213.87	18.61	8.71
								11238136.01	3814214.60	18.61	8.71

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11238132.86	3814214.50	18.61	8.73
							11238132.54	3814218.38	18.61	8.73
							11238126.87	3814218.07	18.61	8.77
							11238127.40	3814213.03	18.61	8.78
							11238120.78	3814212.50	18.61	8.82
							11238120.58	3814215.48	18.61	8.81
							11238117.10	3814215.13	18.61	8.84
							11238116.49	3814220.84	18.61	8.83
							11238117.73	3814220.90	18.61	8.82
							11238117.52	3814223.95	18.61	8.82
							11238118.78	3814224.05	18.61	8.81
							11238118.50	3814226.50	18.61	8.81
							11238116.47	3814226.37	18.61	8.82
							11238116.05	3814232.93	18.61	8.82
							11238119.15	3814233.30	18.61	8.80
							11238118.89	3814236.34	18.61	8.81
							11238126.87	3814236.97	18.61	8.80
							11238127.06	3814235.74	18.61	8.79
							11238130.34	3814236.03	18.61	8.79
							11238130.23	3814237.29	18.61	8.80
							11238135.07	3814237.81	18.61	8.79
							11238135.16	3814236.77	18.61	8.79
							11238137.87	3814236.95	18.61	8.78
							11238137.94	3814238.01	18.61	8.79
							11238142.84	3814238.34	18.61	8.79
							11238142.93	3814236.78	18.61	8.77
							11238145.70	3814237.04	18.61	8.77
							11238145.57	3814238.45	18.61	8.78
							11238151.09	3814238.63	18.61	8.78
							11238151.37	3814235.03	18.61	8.75
							11238154.39	3814235.19	18.61	8.75
							11238153.66	3814241.91	18.61	8.80
							11238151.03	3814241.70	18.61	8.80
							11238150.79	3814244.75	18.61	8.82
							11238152.42	3814244.85	18.61	8.82
							11238152.29	3814247.48	18.61	8.84
							11238154.60	3814247.79	18.61	8.84
							11238153.93	3814254.00	18.61	8.77
							11238151.03	3814253.68	18.61	8.77
							11238151.24	3814250.00	18.61	8.81
							11238146.30	3814249.58	18.61	8.80
							11238146.24	3814250.82	18.61	8.79
							11238142.93	3814250.81	18.61	8.78
							11238143.05	3814248.84	18.61	8.80
							11238138.53	3814248.42	18.61	8.80
							11238138.53	3814249.37	18.61	8.79
							11238131.60	3814248.74	18.61	8.78
							11238131.49	3814247.79	18.61	8.79
							11238122.57	3814247.06	18.61	8.78
							11238122.57	3814247.79	18.61	8.78
							11238119.62	3814247.69	18.61	8.81
							11238119.83	3814246.43	18.61	8.80
							11238111.96	3814245.80	18.61	8.85
							11238111.75	3814248.53	18.61	8.86
							11238110.17	3814248.63	18.61	8.85
							11238109.75	3814253.57	18.61	8.86
							11238107.44	3814253.47	18.61	8.85
							11238107.23	3814254.94	18.61	8.85
							11238109.65	3814255.15	18.61	8.86
							11238109.44	3814257.67	18.61	8.87
							11238108.17	3814257.77	18.61	8.86
							11238108.17	3814260.61	18.61	8.86
							11238106.70	3814260.61	18.61	8.85

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		4.60	r	11238097.36	3814231.78	13.44	8.84
								11238106.36	3814232.57	13.44	8.84
								11238107.15	3814224.83	13.44	8.84
								11238110.06	3814225.16	13.44	8.84
								11238110.59	3814216.69	13.44	8.84
								11238107.68	3814216.44	13.44	8.84
								11238108.21	3814210.54	13.44	8.84
								11238104.31	3814210.14	13.44	8.84
								11238104.24	3814211.66	13.44	8.84
								11238100.20	3814211.26	13.44	8.84
								11238099.94	3814213.25	13.44	8.84
								11238096.56	3814212.92	13.44	8.84
								11238097.03	3814209.74	13.44	8.84
								11238088.95	3814208.88	13.44	8.87
								11238088.23	3814214.70	13.44	8.86
								11238080.15	3814214.17	13.44	9.07
								11238079.56	3814222.05	13.44	8.98
								11238098.22	3814223.90	13.44	8.84
			x	0		6.70	r	11237905.46	3814205.38	18.34	11.64
								11237914.47	3814205.18	18.34	11.59
								11237914.43	3814204.36	18.34	11.58
								11237923.12	3814203.86	18.34	11.53
								11237923.13	3814204.51	18.34	11.54
								11237932.31	3814203.84	18.34	11.50
								11237932.04	3814199.06	18.34	11.50
								11237932.94	3814199.01	18.34	11.50
								11237932.73	3814195.02	18.34	11.50
								11237927.74	3814195.33	18.34	11.50
								11237927.74	3814193.13	18.34	11.50
								11237929.89	3814192.97	18.34	11.50
								11237929.06	3814180.72	18.34	11.50
								11237926.72	3814181.05	18.34	11.50
								11237926.64	3814176.71	18.34	11.50
								11237928.76	3814176.52	18.34	11.50
								11237927.92	3814163.93	18.34	11.50
								11237925.76	3814164.09	18.34	11.50
								11237925.76	3814160.17	18.34	11.50
								11237927.84	3814159.92	18.34	11.50
								11237927.34	3814148.00	18.34	11.50
								11237925.09	3814148.17	18.34	11.50
								11237924.92	3814146.00	18.34	11.50
								11237929.92	3814145.67	18.34	11.50
								11237929.63	3814141.37	18.34	11.50
								11237928.38	3814141.37	18.34	11.50
								11237928.34	3814137.33	18.34	11.50
								11237921.63	3814137.66	18.34	11.51
								11237921.59	3814136.87	18.34	11.52
								11237919.59	3814137.00	18.34	11.52
								11237919.59	3814137.96	18.34	11.52
								11237910.66	3814138.46	18.34	11.55
								11237910.54	3814137.66	18.34	11.55
								11237908.40	3814137.96	18.34	11.56
								11237908.44	3814138.69	18.34	11.55
								11237901.91	3814139.04	18.34	11.58
								11237902.12	3814143.33	18.34	11.55
								11237901.04	3814143.33	18.34	11.56
								11237901.24	3814147.42	18.34	11.53
								11237906.23	3814147.16	18.34	11.52
								11237906.41	3814149.29	18.34	11.50
								11237904.08	3814149.46	18.34	11.51
								11237904.83	3814161.72	18.34	11.50
								11237907.25	3814161.55	18.34	11.50
								11237907.41	3814165.64	18.34	11.50

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237905.16	3814165.89	18.34	11.50
								11237906.00	3814177.97	18.34	11.50
								11237907.83	3814177.81	18.34	11.50
								11237908.08	3814182.06	18.34	11.50
								11237906.08	3814182.48	18.34	11.50
								11237906.87	3814194.52	18.34	11.52
								11237909.12	3814194.26	18.34	11.50
								11237909.19	3814196.57	18.34	11.53
								11237904.19	3814196.84	18.34	11.55
								11237904.45	3814201.12	18.34	11.60
								11237905.35	3814201.07	18.34	11.60
			x	0		9.75	r	11238039.03	3814154.34	18.89	9.14
								11238038.54	3814160.90	18.89	9.27
								11238040.69	3814161.10	18.89	9.28
								11238040.44	3814163.68	18.89	9.32
								11238039.44	3814163.68	18.89	9.31
								11238039.28	3814166.27	18.89	9.35
								11238037.86	3814166.27	18.89	9.34
								11238037.61	3814172.19	18.89	9.43
								11238040.94	3814172.44	18.89	9.45
								11238040.69	3814175.94	18.89	9.50
								11238047.20	3814176.27	18.89	9.55
								11238047.61	3814171.52	18.89	9.48
								11238052.53	3814171.94	18.89	9.48
								11238052.12	3814176.94	18.89	9.58
								11238057.20	3814177.35	18.89	9.59
								11238057.28	3814176.52	18.89	9.57
								11238063.29	3814176.94	18.89	9.55
								11238063.20	3814178.02	18.89	9.57
								11238067.87	3814178.52	18.89	9.55
								11238068.29	3814176.06	18.89	9.50
								11238073.42	3814176.44	18.89	9.48
								11238073.29	3814177.35	18.89	9.50
								11238077.13	3814177.77	18.89	9.45
								11238077.09	3814178.52	18.89	9.46
								11238080.05	3814178.77	18.89	9.42
								11238079.96	3814179.77	18.89	9.43
								11238089.63	3814180.36	18.89	9.31
								11238089.80	3814179.48	18.89	9.30
								11238092.47	3814179.69	18.89	9.27
								11238092.89	3814176.02	18.89	9.23
								11238098.22	3814176.52	18.89	9.16
								11238097.64	3814181.11	18.89	9.21
								11238104.47	3814181.69	18.89	9.13
								11238104.61	3814178.58	18.89	9.10
								11238108.51	3814178.91	18.89	9.06
								11238108.97	3814173.35	18.89	9.01
								11238107.44	3814173.24	18.89	9.01
								11238108.78	3814158.07	18.89	8.86
								11238042.87	3814151.71	18.89	9.08
								11238042.54	3814154.56	18.89	9.14
			x	0		9.75	r	11237904.07	3814078.49	17.44	7.69
								11237909.95	3814086.21	17.44	7.65
								11237912.05	3814084.16	17.44	7.65
								11237913.15	3814085.47	17.44	7.65
								11237912.42	3814086.21	17.44	7.67
								11237917.51	3814092.72	17.44	7.64
								11237924.66	3814086.79	17.44	7.57
								11237926.07	3814088.52	17.44	7.59
								11237928.99	3814085.74	17.44	7.58
								11237929.44	3814086.26	17.44	7.59
								11237937.05	3814079.91	17.44	7.58
								11237936.21	3814078.86	17.44	7.57

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11237938.31	3814077.12	17.44	7.57
							11237938.68	3814077.60	17.44	7.58
							11237942.20	3814074.81	17.44	7.57
							11237941.25	3814073.66	17.44	7.56
							11237946.14	3814069.72	17.44	7.56
							11237946.77	3814070.35	17.44	7.57
							11237948.66	3814068.56	17.44	7.56
							11237949.60	3814069.46	17.44	7.57
							11237957.06	3814063.26	17.44	7.58
							11237956.22	3814062.21	17.44	7.58
							11237958.47	3814060.48	17.44	7.58
							11237955.38	3814056.64	17.44	7.55
							11237956.54	3814055.59	17.44	7.55
							11237958.64	3814057.90	17.44	7.57
							11237965.99	3814052.23	17.44	7.57
							11237964.24	3814049.73	17.44	7.54
							11237965.57	3814048.56	17.44	7.53
							11237920.72	3813989.94	17.44	6.81
							11237912.53	3813997.09	17.44	6.88
							11237914.31	3813999.19	17.44	6.88
							11237913.05	3814000.03	17.44	6.90
							11237911.37	3813997.82	17.44	6.90
							11237903.81	3814004.23	17.44	7.02
							11237905.59	3814006.44	17.44	7.02
							11237904.33	3814007.17	17.44	7.04
							11237907.69	3814011.16	17.44	7.03
							11237909.27	3814009.80	17.44	7.01
							11237910.95	3814012.00	17.44	7.01
							11237910.00	3814012.74	17.44	7.03
							11237911.90	3814014.94	17.44	7.03
							11237910.85	3814015.89	17.44	7.04
							11237917.15	3814023.66	17.44	7.06
							11237918.30	3814022.82	17.44	7.04
							11237921.67	3814027.13	17.44	7.09
							11237920.51	3814028.08	17.44	7.10
							11237926.39	3814036.27	17.44	7.22
							11237927.55	3814035.32	17.44	7.21
							11237930.70	3814039.32	17.44	7.27
							11237929.33	3814040.58	17.44	7.28
							11237932.51	3814044.55	17.44	7.34
							11237933.24	3814044.08	17.44	7.34
							11237935.69	3814047.39	17.44	7.39
							11237937.14	3814045.67	17.44	7.37
							11237938.00	3814046.60	17.44	7.39
							11237938.67	3814046.10	17.44	7.38
							11237941.09	3814049.27	17.44	7.43
							11237942.17	3814049.35	17.44	7.44
							11237941.92	3814050.18	17.44	7.44
							11237942.09	3814051.85	17.44	7.46
							11237939.17	3814053.60	17.44	7.46
							11237938.42	3814053.18	17.44	7.46
							11237935.42	3814055.77	17.44	7.45
							11237934.75	3814055.02	17.44	7.44
							11237934.08	3814055.52	17.44	7.44
							11237932.58	3814053.52	17.44	7.43
							11237929.00	3814056.35	17.44	7.42
							11237929.75	3814057.27	17.44	7.43
							11237927.91	3814058.69	17.44	7.43
							11237927.16	3814057.35	17.44	7.42
							11237919.33	3814063.94	17.44	7.42
							11237920.08	3814064.77	17.44	7.43
							11237916.03	3814068.10	17.44	7.43
							11237915.17	3814067.34	17.44	7.44

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237914.16	3814068.44	17.44	7.47
								11237915.82	3814070.11	17.44	7.45
								11237914.10	3814071.65	17.44	7.50
								11237913.49	3814070.86	17.44	7.50
								11237909.55	3814074.43	17.44	7.61
								11237909.97	3814074.85	17.44	7.60
								11237907.93	3814076.62	17.44	7.66
								11237906.24	3814074.64	17.44	7.67
								11237905.33	3814075.52	17.44	7.69
								11237906.14	3814076.48	17.44	7.69
			x	0		4.60	r	11237881.78	3814008.79	11.88	7.28
								11237891.07	3814025.96	11.88	7.31
								11237893.17	3814024.65	11.88	7.28
								11237893.49	3814025.39	11.88	7.28
								11237895.54	3814024.13	11.88	7.25
								11237895.22	3814023.60	11.88	7.25
								11237897.43	3814022.39	11.88	7.22
								11237899.74	3814021.08	11.88	7.19
								11237895.70	3814013.52	11.88	7.17
								11237898.69	3814011.78	11.88	7.13
								11237895.49	3814005.48	11.88	7.11
								11237897.74	3814004.22	11.88	7.08
								11237895.07	3813999.55	11.88	7.15
								11237893.17	3814000.70	11.88	7.17
								11237892.65	3813999.81	11.88	7.18
								11237891.39	3814000.91	11.88	7.19
								11237890.50	3813999.28	11.88	7.23
								11237887.71	3814001.23	11.88	7.25
								11237888.34	3814002.59	11.88	7.23
								11237886.92	3814003.38	11.88	7.24
								11237887.34	3814004.11	11.88	7.23
								11237883.93	3814006.11	11.88	7.27
								11237884.56	3814007.11	11.88	7.25
			x	0		9.75	r	11237824.66	3813980.79	17.23	7.48
								11237875.27	3813944.25	17.23	7.41
								11237897.74	3813973.02	17.23	7.33
								11237883.25	3813983.52	17.23	7.31
								11237871.49	3813968.61	17.23	7.42
								11237835.16	3813995.91	17.23	7.33

Geometrie Höhenlinien

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237871.28	3814268.78	13.40
						11237882.03	3814269.78	11.90
						11237895.54	3814270.95	11.60
						11237910.79	3814272.20	11.00
						11237946.38	3814275.70	11.00
						11237960.87	3814277.35	10.70
						11238006.05	3814281.45	10.50
						11238074.42	3814287.97	10.10
						11238128.34	3814292.90	9.15
						11238169.52	3814296.90	8.54
						11238187.85	3814298.40	9.15
						11238186.80	3814204.20	7.93
						11237865.11	3814280.70	12.20
						11237919.09	3814284.91	11.00
						11238073.25	3814299.82	11.00
						11238250.89	3814315.71	10.10
						11237881.92	3814269.56	11.90
						11237880.84	3814250.05	13.10

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237880.31	3814214.13	13.10
						11237879.47	3814200.69	13.40
						11237878.61	3814185.47	13.70
						11237876.44	3814158.13	12.80
						11237869.11	3814116.46	13.40
						11237862.61	3814092.28	14.90
						11237859.87	3814081.36	14.00
						11237854.83	3814065.92	13.70
						11237846.22	3814043.24	12.30
						11237832.15	3814014.88	11.90
						11237818.29	3813991.15	10.80
						11237902.99	3814212.44	11.60
						11237901.21	3814224.35	11.50
						11237900.28	3814243.40	11.50
						11237902.00	3814246.57	11.50
						11237950.17	3814249.75	11.00
						11237953.34	3814243.13	11.00
						11237958.77	3814244.06	11.00
						11237960.35	3814251.21	10.90
						11237989.86	3814253.46	10.90
						11238007.73	3814255.18	10.70
						11238009.71	3814251.60	10.70
						11238012.09	3814224.48	11.30
						11238004.75	3814221.37	11.30
						11237962.54	3814218.13	11.00
						11237942.76	3814216.34	11.00
						11237905.17	3814212.56	11.60
						11238034.49	3814231.70	10.40
						11238032.99	3814240.04	10.50
						11238032.90	3814255.29	10.40
						11238037.07	3814258.71	10.40
						11238071.50	3814261.46	9.76
						11238099.75	3814264.05	8.84
						11238103.51	3814259.21	8.84
						11238102.92	3814241.21	8.84
						11238097.59	3814236.29	8.84
						11238036.24	3814231.12	10.40
						11238112.56	3814239.62	8.84
						11238108.46	3814246.89	8.84
						11238105.41	3814257.35	8.84
						11238103.30	3814270.71	8.84
						11238114.15	3814274.15	8.93
						11238162.18	3814277.99	8.54
						11238169.19	3814272.83	8.54
						11238172.37	3814250.73	8.84
						11238172.50	3814218.98	8.84
						11238164.30	3814210.64	8.54
						11238121.56	3814208.39	8.84
						11238114.94	3814217.25	8.84
						11238112.16	3814239.35	8.84
						11238112.72	3814207.99	8.84
						11238091.71	3814201.80	8.84
						11238077.95	3814210.62	9.15
						11238074.07	3814220.91	8.99
						11238085.10	3814231.21	8.84
						11238099.06	3814234.46	8.84
						11238035.65	3814154.34	9.15
						11238032.74	3814175.25	9.45
						11238059.21	3814185.97	9.76
						11238107.77	3814188.61	9.15
						11238122.06	3814164.66	9.15
						11238120.07	3814155.53	9.15
						11237903.76	3814209.71	11.70

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237902.44	3814191.06	11.50
						11237901.25	3814153.21	11.50
						11237899.92	3814136.14	11.60
						11237930.89	3814133.89	11.50
						11237935.25	3814206.67	11.50
						11237933.93	3814132.97	11.50
						11237963.18	3814143.95	11.00
						11237993.61	3814171.60	9.45
						11238023.78	3814173.72	9.76
						11237898.20	3814133.45	11.00
						11237897.36	3814121.11	8.54
						11237893.03	3814100.94	7.62
						11237880.03	3814067.93	7.62
						11237861.35	3814016.74	7.62
						11237844.60	3814008.66	7.32
						11237824.93	3813996.32	7.32
						11237916.25	3814099.08	7.93
						11237901.43	3814082.14	7.62
						11237900.90	3814072.35	7.74
						11237912.78	3814050.56	7.32
						11237892.08	3814029.08	7.32
						11237877.91	3814010.91	7.32
						11237871.24	3813998.24	7.26
						11237854.43	3813994.25	7.32
						11237831.96	3813999.08	7.30
						11237821.24	3813984.16	7.32
						11237825.75	3813978.00	7.56
						11237860.61	3813946.91	7.56
						11237881.20	3813937.25	7.32
						11237900.52	3813973.37	7.32
						11237925.85	3813991.70	6.71
						11237971.28	3814054.17	7.62
						11237957.78	3814072.04	7.62
						11237921.26	3814097.71	7.62
						11237984.06	3814104.64	11.30
						11238018.30	3814121.86	10.40
						11238056.65	3814140.87	8.84
						11238109.00	3814156.21	8.84

Geometrie Bruchkanten

Name	M.	ID	Coordinates	
			x	y
			(m)	(m)

Bericht (Cumltv plus Prj 2nd Floor Rcvrs.cna)

Gruppentabelle Tag und Nacht

Name	Expression	R 7-1B		R 7-2B		R 7-3B		R 7-4B		R 7-5B		R 7-6B		R 7-7B		R 7-8B		R 7-9I	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	N

Source																			
Name	M.	ID	R 7-1B		R 7-2B		R 7-3B		R 7-4B		R 7-5B		R 7-6B		R 7-7B		R 7-8B		
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	
Los Carneros Road															17.1		34.8		
US 101 SB Onramp									45.5		49.4	-83.8	46.8	-86.7	43.0		18.9		
US 101 SB Offramp																	-11.3		
US 101 SB											33.2		34.5		19.8		9.7		
US 101 SB			57.7	-84.5	57.7	-84.4	57.2	-84.7	55.7	-87.5	50.7		47.7		43.0		26.1		
US 101 NB			53.9		54.2		53.8		54.0		50.2		47.3		43.0		26.3		
US 101 NB											36.1		38.4		21.3		10.8		
UPRR			49.5	49.5	49.9	49.9	50.3	50.3	50.8	50.8	51.1	51.1	31.8	31.8	32.7	32.7	31.0	31.0	
UPRR			66.8	66.8	66.8	66.8	66.7	66.7	66.3	66.3	63.1	63.1	59.5	59.5	54.2	54.2	43.0	43.0	

Schallquellen

Punktquellen

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night	
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)

Linienquellen

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen vertikal

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Schienen

Name	M.	ID	Lm,E		Train Class	Add.Level				Vmax
			Day	Night		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0						
UPRR			78.0	78.0						

Zugklassen

Name	M.	ID	Lm,E		Train Class											Add.Level				Vmax
			Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night	(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0																
UPRR			78.0	78.0																

Name	Lm,E		Train Class									
	Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)	
	(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night

Parkplätze

Name	M.	ID	Type	Lwa			Event Data						Penalty Type		Penalty Surface		A
				Day	Special	Night	Ref. Quantity	Number B	No. Spaces/RefQ	Events/h/RefQ			Kpa	Type	Kstro	Surface	
				(dBA)	(dBA)	(dBA)				Day	Special	Night	(dB)		(dB)		

Strassen

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	S
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Ds
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(d
Los Carneros Road			70.2	0.0	0.0			3333.0	0.0	0.0	5.0	0.0	0.0	72		RQ 20	
US 101 SB Onramp			66.2	0.0	0.0			1339.0	0.0	0.0	5.0	0.0	0.0	72		RQ 12	
US 101 SB Offramp			61.8	0.0	0.0			190.0	0.0	0.0	5.0	0.0	0.0	100		RQ 12	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	

Ampeln

Name	M.	ID	Active			Height	Coordinates		
			Day	Evening	Night	Begin	X	Y	Z
						(m)	(m)	(m)	(m)

Immissionspunkte

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 7-1B			67.5	66.8	0.0	0.0		x	Total	4.55	r	11238158.88	3814274.45	10.07
R 7-2B			67.6	66.9	0.0	0.0		x	Total	4.55	r	11238145.19	3814273.08	10.17
R 7-3B			67.5	66.8	0.0	0.0		x	Total	4.55	r	11238128.68	3814272.48	10.30
R 7-4B			67.0	66.4	0.0	0.0		x	Total	4.55	r	11238111.97	3814270.98	10.41
R 7-5B			64.0	63.4	0.0	0.0		x	Total	4.55	r	11238105.86	3814263.69	10.35
R 7-6B			60.2	59.5	0.0	0.0		x	Total	4.55	r	11238107.53	3814258.72	10.36
R 7-7B			55.1	54.2	0.0	0.0		x	Total	4.55	r	11238109.36	3814250.46	10.35
R 7-8B			44.0	43.3	0.0	0.0		x	Total	4.55	r	11238117.34	3814245.69	10.32
R 7-9B			43.9	43.2	0.0	0.0		x	Total	4.55	r	11238129.68	3814247.19	10.29
R 7-10B			48.1	47.6	0.0	0.0		x	Total	4.55	r	11238139.98	3814238.42	10.29
R 7-11B			48.1	47.5	0.0	0.0		x	Total	4.55	r	11238132.71	3814238.00	10.30
R 7-12B			48.2	47.3	0.0	0.0		x	Total	4.55	r	11238122.29	3814237.03	10.31
R 7-13B			54.3	53.0	0.0	0.0		x	Total	4.55	r	11238115.68	3814231.37	10.33
R 7-14B			53.5	52.2	0.0	0.0		x	Total	4.55	r	11238117.37	3814222.06	10.32
R 7-15B			45.3	44.7	0.0	0.0		x	Total	4.55	r	11238124.18	3814211.84	10.30
R 7-16B			58.8	57.1	0.0	0.0		x	Total	4.55	r	11238167.78	3814224.98	10.17
R 7-17B			53.5	52.8	0.0	0.0		x	Total	4.55	r	11238165.37	3814240.73	10.27
R 7-18B			62.4	60.8	0.0	0.0		x	Total	4.55	r	11238167.76	3814253.05	10.31
R 7-19B			64.3	63.1	0.0	0.0		x	Total	4.55	r	11238163.26	3814267.75	10.15
R 8-1B			66.0	65.3	0.0	0.0		x	Total	4.55	r	11238095.94	3814262.98	10.46
R 8-2B			66.1	65.4	0.0	0.0		x	Total	4.55	r	11238091.05	3814262.56	10.62

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 8-3B			66.1	65.4	0.0	0.0		x	Total	4.55	r	11238082.91	3814260.93	10.88
R 8-4B			66.4	65.7	0.0	0.0		x	Total	4.55	r	11238077.03	3814261.14	11.08
R 8-5B			66.5	65.7	0.0	0.0		x	Total	4.55	r	11238070.78	3814259.57	11.26
R 8-6B			66.1	65.3	0.0	0.0		x	Total	4.55	r	11238063.82	3814257.53	11.41
R 8-7B			66.7	65.9	0.0	0.0		x	Total	4.55	r	11238058.76	3814259.29	11.50
R 8-8B			66.8	66.0	0.0	0.0		x	Total	4.55	r	11238051.34	3814258.62	11.64
R 8-9B			66.9	66.1	0.0	0.0		x	Total	4.55	r	11238044.92	3814258.04	11.76
R 8-10B			67.0	66.2	0.0	0.0		x	Total	4.55	r	11238038.91	3814257.62	11.87
R 8-11B			65.3	64.4	0.0	0.0		x	Total	4.55	r	11238035.70	3814252.75	11.93
R 8-12B			56.8	55.3	0.0	0.0		x	Total	4.55	r	11238036.20	3814245.83	11.93
R 8-13B			62.7	61.7	0.0	0.0		x	Total	4.55	r	11238034.70	3814242.25	11.97
R 8-14B			62.7	61.7	0.0	0.0		x	Total	4.55	r	11238034.12	3814238.16	11.97
R 8-15B			46.2	45.5	0.0	0.0		x	Total	4.55	r	11238037.20	3814235.58	11.90
R 8-16B			44.3	42.7	0.0	0.0		x	Total	4.55	r	11238041.79	3814233.08	11.77
R 8-17B			44.3	42.8	0.0	0.0		x	Total	4.55	r	11238050.79	3814234.66	11.55
R 8-18B			43.8	42.3	0.0	0.0		x	Total	4.55	r	11238073.05	3814235.66	10.98
R 8-19B			44.0	42.3	0.0	0.0		x	Total	4.55	r	11238092.32	3814237.58	10.49
R 8-20B			45.0	42.3	0.0	0.0		x	Total	4.55	r	11238097.48	3814238.25	10.35
R 8-21B			45.0	44.4	0.0	0.0		x	Total	4.55	r	11238099.57	3814242.92	10.34
R 8-22B			45.2	44.6	0.0	0.0		x	Total	4.55	r	11238099.32	3814249.25	10.34
R 8-23B			44.5	44.1	0.0	0.0		x	Total	4.55	r	11238100.15	3814252.50	10.34
R 8-24B			62.1	61.2	0.0	0.0		x	Total	4.55	r	11238100.82	3814257.51	10.34
R 5-1B			66.9	66.1	0.0	0.0		x	Total	4.55	r	11238006.18	3814253.15	12.23
R 5-2B			67.3	66.6	0.0	0.0		x	Total	4.55	r	11238001.34	3814253.81	12.28
R 5-3B			66.9	66.1	0.0	0.0		x	Total	4.55	r	11237996.01	3814250.31	12.38
R 5-4B			67.3	66.3	0.0	0.0		x	Total	4.55	r	11237988.02	3814249.60	12.42
R 5-5B			65.8	64.9	0.0	0.0		x	Total	4.55	r	11237984.83	3814247.14	12.42
R 5-6B			67.2	66.3	0.0	0.0		x	Total	4.55	r	11237979.50	3814249.06	12.43
R 5-7B			66.8	65.9	0.0	0.0		x	Total	4.55	r	11237972.41	3814248.34	12.45
R 5-8B			67.4	66.6	0.0	0.0		x	Total	4.55	r	11237966.91	3814250.73	12.41
R 5-9B			67.1	66.4	0.0	0.0		x	Total	4.55	r	11237962.02	3814249.08	12.43
R 5-10B			64.2	63.4	0.0	0.0		x	Total	4.55	r	11237960.24	3814244.31	12.50
R 5-11B			61.3	60.3	0.0	0.0		x	Total	4.55	r	11237961.24	3814232.50	12.50
R 5-12B			59.7	58.6	0.0	0.0		x	Total	4.55	r	11237962.10	3814224.53	12.50
R 5-13B			48.3	45.2	0.0	0.0		x	Total	4.55	r	11237965.48	3814220.85	12.50
R 5-14B			48.9	44.8	0.0	0.0		x	Total	4.55	r	11237969.18	3814220.11	12.53
R 5-15B			46.1	45.3	0.0	0.0		x	Total	4.55	r	11237984.40	3814224.30	12.62
R 5-16B			47.5	44.9	0.0	0.0		x	Total	4.55	r	11238003.88	3814223.39	12.77
R 5-17B			46.4	45.5	0.0	0.0		x	Total	4.55	r	11238008.63	3814224.56	12.77
R 5-18B			62.8	60.7	0.0	0.0		x	Total	4.55	r	11238010.32	3814229.42	12.68
R 5-19B			63.5	61.7	0.0	0.0		x	Total	4.55	r	11238009.29	3814238.06	12.49
R 5-20B			64.6	63.3	0.0	0.0		x	Total	4.55	r	11238008.49	3814249.18	12.26
R4-1B			64.0	62.9	0.0	0.0		x	Total	4.55	r	11237949.84	3814242.00	12.50
R4-2B			67.1	66.4	0.0	0.0		x	Total	4.55	r	11237947.43	3814247.77	12.52
R4-3B			67.4	66.6	0.0	0.0		x	Total	4.55	r	11237941.96	3814248.40	12.58
R4-4B			66.9	66.2	0.0	0.0		x	Total	4.55	r	11237937.34	3814245.25	12.62
R4-5B			67.1	66.3	0.0	0.0		x	Total	4.55	r	11237929.36	3814244.20	12.71
R4-6B			65.9	65.0	0.0	0.0		x	Total	4.55	r	11237924.74	3814241.89	12.75
R4-7B			67.1	66.4	0.0	0.0		x	Total	4.55	r	11237921.16	3814243.89	12.79
R4-8B			66.5	65.6	0.0	0.0		x	Total	4.55	r	11237913.18	3814243.26	12.87
R4-9B			67.2	66.4	0.0	0.0		x	Total	4.55	r	11237907.93	3814245.36	12.93
R4-10B			66.9	66.0	0.0	0.0		x	Total	4.55	r	11237903.22	3814243.82	12.98
R4-11B			64.3	62.7	0.0	0.0		x	Total	4.55	r	11237901.39	3814239.15	13.00
R4-12B			64.0	62.2	0.0	0.0		x	Total	4.55	r	11237901.89	3814232.81	13.00
R4-13B			63.8	61.9	0.0	0.0		x	Total	4.55	r	11237902.64	3814226.72	12.98
R4-14B			63.8	61.9	0.0	0.0		x	Total	4.55	r	11237903.14	3814220.22	13.03
R4-15B			58.4	46.3	0.0	0.0		x	Total	4.55	r	11237905.89	3814215.30	13.05
R4-16B			58.0	46.2	0.0	0.0		x	Total	4.55	r	11237910.23	3814214.63	13.00
R4-17B			51.7	45.6	0.0	0.0		x	Total	4.55	r	11237915.31	3814218.22	12.88
R4-18B			52.8	45.3	0.0	0.0		x	Total	4.55	r	11237923.65	3814218.89	12.75
R4-19B			51.9	45.2	0.0	0.0		x	Total	4.55	r	11237931.41	3814219.39	12.64
R4-20B			50.9	44.8	0.0	0.0		x	Total	4.55	r	11237938.41	3814220.14	12.55
R4-21B			50.5	44.6	0.0	0.0		x	Total	4.55	r	11237944.50	3814217.80	12.50

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R4-22B			46.2	44.8	0.0	0.0		x	Total	4.55	r	11237949.25	3814219.14	12.50
R4-23B			60.2	58.8	0.0	0.0		x	Total	4.55	r	11237951.00	3814224.81	12.50
R4-24B			62.5	61.0	0.0	0.0		x	Total	4.55	r	11237950.00	3814235.23	12.50
R3-1B			57.9	56.8	0.0	0.0		x	Total	4.55	r	11237930.46	3814204.31	13.00
R3-2B			58.9	57.7	0.0	0.0		x	Total	4.55	r	11237924.19	3814204.84	13.04
R3-3B			61.7	60.6	0.0	0.0		x	Total	4.55	r	11237913.90	3814205.68	13.10
R3-4B			63.5	61.8	0.0	0.0		x	Total	4.55	r	11237906.25	3814205.88	13.14
R3-5B			64.5	62.5	0.0	0.0		x	Total	4.55	r	11237903.92	3814198.64	13.08
R3-6B			64.1	62.1	0.0	0.0		x	Total	4.55	r	11237906.41	3814190.27	13.00
R3-7B			64.6	62.7	0.0	0.0		x	Total	4.55	r	11237905.92	3814184.34	13.00
R3-8B			64.8	63.1	0.0	0.0		x	Total	4.55	r	11237905.28	3814175.17	13.00
R3-10B			64.7	62.9	0.0	0.0		x	Total	4.55	r	11237904.36	3814159.15	13.00
R3-11B			64.6	62.8	0.0	0.0		x	Total	4.55	r	11237903.89	3814152.34	13.00
R3-12B			64.7	62.9	0.0	0.0		x	Total	4.55	r	11237900.93	3814146.17	13.04
R3-13B			64.3	62.3	0.0	0.0		x	Total	4.55	r	11237901.77	3814140.17	13.07
R3-14B			56.4	43.8	0.0	0.0		x	Total	4.55	r	11237904.96	3814138.70	13.07
R3-15B			54.5	43.8	0.0	0.0		x	Total	4.55	r	11237916.26	3814137.67	13.03
R3-16B			53.2	43.3	0.0	0.0		x	Total	4.55	r	11237926.46	3814137.10	13.00
R3-17B			51.5	50.6	0.0	0.0		x	Total	4.55	r	11237930.11	3814142.83	13.00
R3-18B			51.0	50.4	0.0	0.0		x	Total	4.55	r	11237928.78	3814169.17	13.00
R3-19B			50.3	49.9	0.0	0.0		x	Total	4.55	r	11237929.78	3814185.83	13.00
R3-20B			50.8	50.2	0.0	0.0		x	Total	4.55	r	11237932.95	3814200.50	13.00
R2-1B			61.0	59.9	0.0	0.0		x	Total	4.55	r	11237916.87	3814093.05	9.14
R2-2B			60.9	59.8	0.0	0.0		x	Total	4.55	r	11237911.83	3814086.96	9.16
R2-3B			60.8	59.6	0.0	0.0		x	Total	4.55	r	11237907.84	3814085.07	9.15
R2-4B			60.6	59.5	0.0	0.0		x	Total	4.55	r	11237903.85	3814080.45	9.17
R2-5B			58.9	57.1	0.0	0.0		x	Total	4.55	r	11237905.11	3814076.46	9.20
R2-6B			51.3	43.7	0.0	0.0		x	Total	4.55	r	11237911.41	3814071.62	9.05
R2-7B			53.2	48.2	0.0	0.0		x	Total	4.55	r	11237917.71	3814065.53	8.92
R2-8B			54.4	51.6	0.0	0.0		x	Total	4.55	r	11237924.85	3814058.18	8.91
R2-9B			53.6	50.2	0.0	0.0		x	Total	4.55	r	11237931.15	3814054.19	8.92
R2-10B			50.2	40.5	0.0	0.0		x	Total	4.55	r	11237936.41	3814052.93	8.94
R2-11B			55.7	53.2	0.0	0.0		x	Total	4.55	r	11237933.89	3814046.84	8.87
R2-12B			57.6	55.9	0.0	0.0		x	Total	4.55	r	11237929.05	3814041.59	8.79
R2-13B			59.3	58.1	0.0	0.0		x	Total	4.55	r	11237922.96	3814033.40	8.67
R2-14B			59.6	58.6	0.0	0.0		x	Total	4.55	r	11237915.40	3814023.32	8.57
R2-15B			59.3	58.5	0.0	0.0		x	Total	4.55	r	11237910.36	3814016.60	8.56
R2-16B			56.3	55.6	0.0	0.0		x	Total	4.55	r	11237904.69	3814008.41	8.54
R2-17B			47.6	46.7	0.0	0.0		x	Total	4.55	r	11237905.53	3814001.90	8.48
R2-18B			47.7	45.7	0.0	0.0		x	Total	4.55	r	11237908.89	3813998.96	8.43
R2-19B			49.9	45.9	0.0	0.0		x	Total	4.55	r	11237914.35	3813994.34	8.38
R2-20B			49.1	45.0	0.0	0.0		x	Total	4.55	r	11237917.92	3813991.82	8.34
R2-21B			44.2	44.1	0.0	0.0		x	Total	4.55	r	11237925.48	3813995.60	8.25
R2-22B			44.4	44.2	0.0	0.0		x	Total	4.55	r	11237935.78	3814009.04	8.45
R2-23B			44.2	44.1	0.0	0.0		x	Total	4.55	r	11237947.96	3814024.79	8.68
R2-24B			44.5	44.3	0.0	0.0		x	Total	4.55	r	11237960.56	3814040.96	8.92
R2-25B			53.6	52.9	0.0	0.0		x	Total	4.55	r	11237962.45	3814056.29	9.08
R2-26B			58.0	57.1	0.0	0.0		x	Total	4.55	r	11237951.11	3814068.68	9.07
R2-27B			57.8	56.9	0.0	0.0		x	Total	4.55	r	11237956.15	3814064.69	9.08
R2-28B			58.0	57.2	0.0	0.0		x	Total	4.55	r	11237941.24	3814076.04	9.08
R2-29B			59.3	58.5	0.0	0.0		x	Total	4.55	r	11237935.57	3814081.92	9.09
R2-30B			60.6	59.7	0.0	0.0		x	Total	4.55	r	11237927.16	3814088.22	9.09
R6-1B			54.1	53.6	0.0	0.0		x	Total	4.55	r	11238102.76	3814182.07	10.66
R6-2B			54.6	54.0	0.0	0.0		x	Total	4.55	r	11238087.19	3814180.63	10.85
R6-3B			56.7	56.0	0.0	0.0		x	Total	4.55	r	11238054.90	3814177.76	11.10
R6-4B			57.1	56.2	0.0	0.0		x	Total	4.55	r	11238037.24	3814169.05	10.88
R6-5B			56.6	55.7	0.0	0.0		x	Total	4.55	r	11238038.29	3814157.89	10.72
R6-6B			44.4	39.8	0.0	0.0		x	Total	4.55	r	11238050.67	3814151.80	10.57
R1-1B			59.4	55.8	0.0	0.0		x	Total	4.55	r	11237833.27	3813996.54	8.83
R1-2B			60.9	57.4	0.0	0.0		x	Total	4.55	r	11237824.45	3813983.73	8.91
R1-3B			56.8	40.2	0.0	0.0		x	Total	4.55	r	11237833.27	3813973.23	9.05
R1-4B			53.4	39.6	0.0	0.0		x	Total	4.55	r	11237867.71	3813948.03	9.00
R1-5B			43.1	42.8	0.0	0.0		x	Total	4.55	r	11237883.04	3813953.70	8.88

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R1-6B			59.3	58.5	0.0	0.0		x	Total	4.55	r	11237889.97	3813979.95	8.81
R1-7B			60.0	59.1	0.0	0.0		x	Total	4.55	r	11237880.10	3813982.05	8.82
R1-8B			60.2	59.3	0.0	0.0		x	Total	4.55	r	11237872.75	3813973.02	8.89
R1-9B			60.3	59.5	0.0	0.0		x	Total	4.55	r	11237860.99	3813977.22	8.90
R1-10B			59.9	58.6	0.0	0.0		x	Total	4.55	r	11237843.77	3813990.45	8.88

Gebietsausweisungen

Name	M.	ID	Type	Persons
				(1/km²)

Hindernisse

Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			
			left	right		horz.	vert.	Begin		End	
					(m)	(m)	(m)	(m)		(m)	

Häuser

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		3.65	r
			x	0		3.65	r
			x	0		6.70	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		9.75	r

Bewuchs

Name	M.	ID	Height
			(m)

Bebauung

Name	M.	ID	Type	Attenuation	B	m	Height
				dB/100m	%	1/m	(m)

Geometriedaten

Geometrie Linienquellen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Flächenquellen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Parkplätze

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Straßen

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		
Los Carneros Road					11237697.29	3813908.86	7.62	7.60		
					11237759.07	3813961.83	10.67	10.70		
					11237782.99	3813989.66	10.67	11.00		
					11237808.40	3814029.18	12.50	12.50		
					11237829.81	3814079.44	12.80	14.00		
					11237845.52	3814131.11	14.33	16.00		
					11237849.30	3814230.44	14.94	18.50		
					11237851.61	3814289.45	16.76	21.30		
					11237854.07	3814329.87	18.29	21.50		
					11237857.43	3814385.23	18.29	18.29		
					11237861.66	3814452.97	16.46	16.46		
US 101 SB Onramp					11237862.91	3814329.11	14.33	21.50		
					11237917.30	3814334.68	14.63	19.00		
					11237998.36	3814343.08	14.63	15.80		
					11238188.34	3814363.72	10.36	12.20		
					11238396.35	3814383.05	9.75	10.40		
US 101 SB Offramp					11237577.38	3814297.86	12.19	12.19		
					11237682.81	3814309.20	14.33	14.33		
					11237760.93	3814317.60	14.33	18.00		
					11237844.93	3814327.68	14.00	21.50		
US 101 SB					11237580.17	3814319.88	12.80	12.80		
					11237676.48	3814338.40	12.50	12.50		
					11237752.15	3814353.33	12.19	12.19		
					11237789.19	3814359.46	12.19	12.19		
					11237847.26	3814365.39	12.50	12.50		
US 101 SB					11237865.59	3814369.12	12.50	12.50		
					11237906.40	3814372.39	11.28	11.28		
					11237997.12	3814376.59	10.97	10.97		
					11238183.92	3814379.77	10.97	10.97		
					11238395.93	3814392.44	10.36	10.36		
US 101 NB					11238394.07	3814413.64	9.14	9.14		
					11238181.55	3814403.56	9.75	9.75		
					11237995.91	3814396.84	11.28	11.28		
					11237901.83	3814389.28	10.67	10.67		
					11237866.49	3814386.68	12.50	12.50		
US 101 NB					11237847.87	3814383.91	12.50	12.50		
					11237786.75	3814375.84	12.19	12.19		
					11237748.95	3814369.96	12.19	12.19		
					11237674.19	3814356.52	13.11	13.11		
					11237577.59	3814337.20	12.50	12.50		

Geometrie Schienen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)
UPRR	12.50	a	12.50	a	11237570.03	3814262.43	12.50	1.88
					11237838.85	3814285.11	12.50	11.38
UPRR	12.50	a	8.53	a	11237861.86	3814287.47	12.50	11.58
					11238395.28	3814332.85	8.53	0.89

Geometrie Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
			left	right		horz.	vert.	Begin		End		x	y	z	Ground
					(m)	(m)	(m)	(m)		(m)		(m)	(m)	(m)	(m)
												11237880.37	3814214.17	14.90	13.10
												11237881.18	3814251.51	14.90	13.10
												11237882.02	3814269.67	13.70	11.90
												11237895.41	3814270.84	13.40	11.60
												11237911.06	3814272.16	12.80	11.00
												11237945.61	3814275.47	12.80	11.00
												11237961.46	3814277.18	12.50	10.70
												11238006.41	3814281.33	12.30	10.50
												11238074.37	3814287.71	11.90	10.10
												11238128.78	3814292.54	10.95	9.15
												11238169.64	3814296.43	10.34	8.54
												11238187.40	3814297.69	10.95	9.15

Geometrie Häuser

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		3.65	r	11238188.92	3814297.40	12.80	9.15
								11238194.21	3814297.14	12.80	9.21
								11238193.42	3814235.75	12.80	8.41
								11238220.94	3814234.69	12.80	8.50
								11238220.67	3814227.01	12.80	8.34
								11238187.86	3814229.66	12.80	8.27
								11238189.18	3814297.40	12.80	9.15
			x	0		3.65	r	11238198.18	3814176.74	11.11	7.46
								11238200.30	3814224.10	11.11	8.31
								11238237.34	3814223.31	11.11	8.24
								11238236.55	3814196.05	11.11	7.69
								11238223.32	3814196.32	11.11	7.71
								11238222.79	3814175.68	11.11	7.29
			x	0		6.70	r	11237903.99	3814215.91	18.27	11.57
								11237901.32	3814243.25	18.27	11.50
								11237905.31	3814243.57	18.27	11.46
								11237905.26	3814244.72	18.27	11.46
								11237909.41	3814244.98	18.27	11.42
								11237909.83	3814239.79	18.27	11.40
								11237911.82	3814239.94	18.27	11.38
								11237911.77	3814242.25	18.27	11.39
								11237923.27	3814243.15	18.27	11.27
								11237923.43	3814240.99	18.27	11.26
								11237927.52	3814241.41	18.27	11.22
								11237927.31	3814243.51	18.27	11.23
								11237939.07	3814244.68	18.27	11.11
								11237939.22	3814242.53	18.27	11.10
								11237941.17	3814242.68	18.27	11.08
								11237940.69	3814247.83	18.27	11.10
								11237944.63	3814248.15	18.27	11.05
								11237944.74	3814246.83	18.27	11.05
								11237948.73	3814247.15	18.27	11.01
								11237951.25	3814219.58	18.27	11.00
								11237947.26	3814219.27	18.27	11.00
								11237947.34	3814218.14	18.27	11.00
								11237943.38	3814217.89	18.27	11.00
								11237942.88	3814222.85	18.27	11.01
								11237941.01	3814222.81	18.27	11.03
								11237941.13	3814220.39	18.27	11.03
								11237913.61	3814218.28	18.27	11.40
								11237913.48	3814220.39	18.27	11.37
								11237911.36	3814220.19	18.27	11.41
								11237911.89	3814215.23	18.27	11.47
								11237907.92	3814214.84	18.27	11.53
								11237907.79	3814215.89	18.27	11.52

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237903.82	3814215.50	18.27	11.57
			x	0		6.70	r	11237960.36	3814248.60	17.64	10.94
								11237964.18	3814248.92	17.64	10.94
								11237964.17	3814249.98	17.64	10.92
								11237968.27	3814250.40	17.64	10.92
								11237968.69	3814245.25	17.64	10.97
								11237970.58	3814245.46	17.64	10.96
								11237970.37	3814247.66	17.64	10.96
								11237982.13	3814248.71	17.64	10.93
								11237982.45	3814246.30	17.64	10.93
								11237986.44	3814246.72	17.64	10.93
								11237986.23	3814249.03	17.64	10.91
								11237997.99	3814249.98	17.64	10.87
								11237998.10	3814247.77	17.64	10.91
								11237999.99	3814247.98	17.64	10.88
								11237999.57	3814253.13	17.64	10.80
								11238004.30	3814253.65	17.64	10.75
								11238004.33	3814252.58	17.64	10.75
								11238007.69	3814252.90	17.64	10.71
								11238010.07	3814225.08	17.64	11.27
								11238006.19	3814224.87	17.64	11.24
								11238006.29	3814223.72	17.64	11.26
								11238002.14	3814223.44	17.64	11.26
								11238001.77	3814228.23	17.64	11.21
								11237999.88	3814228.13	17.64	11.20
								11238000.02	3814226.06	17.64	11.22
								11237972.62	3814223.61	17.64	11.03
								11237972.36	3814225.92	17.64	11.01
								11237970.47	3814225.82	17.64	10.99
								11237971.00	3814220.46	17.64	11.05
								11237967.11	3814219.93	17.64	11.02
								11237966.80	3814221.40	17.64	11.00
								11237962.80	3814220.88	17.64	11.00
			x	0		9.75	r	11238034.68	3814235.95	20.20	10.45
								11238034.15	3814241.31	20.20	10.48
								11238035.41	3814241.31	20.20	10.45
								11238034.89	3814244.67	20.20	10.46
								11238036.99	3814244.88	20.20	10.42
								11238036.78	3814247.40	20.20	10.42
								11238034.26	3814247.29	20.20	10.46
								11238034.26	3814248.66	20.20	10.45
								11238036.57	3814248.97	20.20	10.42
								11238036.04	3814253.91	20.20	10.43
								11238037.51	3814254.12	20.20	10.40
								11238037.30	3814256.75	20.20	10.40
								11238046.44	3814257.59	20.20	10.23
								11238046.65	3814255.28	20.20	10.23
								11238048.96	3814255.49	20.20	10.18
								11238048.86	3814257.80	20.20	10.18
								11238060.52	3814258.85	20.20	9.97
								11238060.83	3814256.64	20.20	9.96
								11238065.56	3814257.06	20.20	9.87
								11238065.45	3814257.80	20.20	9.88
								11238069.44	3814258.11	20.20	9.78
								11238069.23	3814258.85	20.20	9.79
								11238072.65	3814259.11	20.20	9.71
								11238072.49	3814260.21	20.20	9.72
								11238081.66	3814261.05	20.20	9.43
								11238081.66	3814260.05	20.20	9.42
								11238084.75	3814260.46	20.20	9.32
								11238085.16	3814256.30	20.20	9.30
								11238090.42	3814257.05	20.20	9.13
								11238089.92	3814261.88	20.20	9.16

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238096.58	3814262.38	20.20	8.94
								11238096.75	3814259.05	20.20	8.93
								11238100.34	3814259.38	20.20	8.84
								11238101.09	3814253.71	20.20	8.84
								11238099.67	3814253.54	20.20	8.84
								11238099.92	3814250.54	20.20	8.84
								11238098.84	3814250.54	20.20	8.84
								11238099.00	3814247.71	20.20	8.84
								11238101.42	3814247.96	20.20	8.84
								11238101.25	3814246.21	20.20	8.84
								11238098.84	3814246.04	20.20	8.84
								11238099.25	3814241.12	20.20	8.84
								11238098.42	3814241.12	20.20	8.84
								11238098.50	3814238.70	20.20	8.84
								11238090.33	3814237.95	20.20	9.05
								11238090.33	3814238.70	20.20	9.05
								11238087.16	3814238.54	20.20	9.13
								11238087.33	3814237.37	20.20	9.12
								11238078.16	3814236.45	20.20	9.35
								11238077.99	3814237.37	20.20	9.36
								11238074.66	3814237.12	20.20	9.45
								11238074.74	3814236.04	20.20	9.44
								11238069.91	3814235.79	20.20	9.56
								11238069.82	3814236.79	20.20	9.57
								11238063.74	3814236.12	20.20	9.73
								11238063.74	3814235.16	20.20	9.72
								11238054.52	3814234.22	20.20	9.95
								11238054.48	3814235.37	20.20	9.96
								11238045.56	3814234.62	20.20	10.19
								11238045.56	3814233.62	20.20	10.18
								11238038.48	3814233.12	20.20	10.36
								11238038.14	3814236.12	20.20	10.38
			x	0		9.75	r	11238106.23	3814266.67	18.61	8.86
								11238109.59	3814266.88	18.61	8.88
								11238109.38	3814269.82	18.61	8.89
								11238116.31	3814270.66	18.61	8.90
								11238117.26	3814265.51	18.61	8.88
								11238122.10	3814265.85	18.61	8.84
								11238121.84	3814270.15	18.61	8.85
								11238124.75	3814270.28	18.61	8.83
								11238124.82	3814271.34	18.61	8.83
								11238134.15	3814272.07	18.61	8.76
								11238134.21	3814270.94	18.61	8.75
								11238137.45	3814271.34	18.61	8.73
								11238137.19	3814272.40	18.61	8.73
								11238141.94	3814272.82	18.61	8.69
								11238141.94	3814271.82	18.61	8.69
								11238148.11	3814272.57	18.61	8.64
								11238148.28	3814273.48	18.61	8.64
								11238152.86	3814273.98	18.61	8.61
								11238152.95	3814273.07	18.61	8.60
								11238160.89	3814273.86	18.61	8.58
								11238161.15	3814270.95	18.61	8.61
								11238162.54	3814271.08	18.61	8.61
								11238162.81	3814266.25	18.61	8.66
								11238165.25	3814266.45	18.61	8.66
								11238165.32	3814264.80	18.61	8.68
								11238162.87	3814264.66	18.61	8.68
								11238163.14	3814262.15	18.61	8.70
								11238166.25	3814262.55	18.61	8.71
								11238166.31	3814260.89	18.61	8.72
								11238164.13	3814260.69	18.61	8.72
								11238164.33	3814258.31	18.61	8.75

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11238166.64	3814258.51	18.61	8.75
							11238167.64	3814247.33	18.61	8.82
							11238167.64	3814246.00	18.61	8.81
							11238163.72	3814245.67	18.61	8.81
							11238163.89	3814241.75	18.61	8.78
							11238164.78	3814241.78	18.61	8.78
							11238165.04	3814238.54	18.61	8.76
							11238166.23	3814238.71	18.61	8.76
							11238166.30	3814237.48	18.61	8.75
							11238163.76	3814237.28	18.61	8.75
							11238164.02	3814234.21	18.61	8.72
							11238166.47	3814234.47	18.61	8.72
							11238166.66	3814232.95	18.61	8.71
							11238163.36	3814232.75	18.61	8.71
							11238163.42	3814229.77	18.61	8.69
							11238164.61	3814229.77	18.61	8.69
							11238164.75	3814227.19	18.61	8.67
							11238167.00	3814227.39	18.61	8.67
							11238167.59	3814220.78	18.61	8.66
							11238163.95	3814220.38	18.61	8.62
							11238164.27	3814217.23	18.61	8.59
							11238156.28	3814216.81	18.61	8.60
							11238156.18	3814215.44	18.61	8.59
							11238151.56	3814214.92	18.61	8.62
							11238151.45	3814216.18	18.61	8.62
							11238145.15	3814215.65	18.61	8.65
							11238145.25	3814214.60	18.61	8.65
							11238136.01	3814213.87	18.61	8.71
							11238136.01	3814214.60	18.61	8.71
							11238132.86	3814214.50	18.61	8.73
							11238132.54	3814218.38	18.61	8.73
							11238126.87	3814218.07	18.61	8.77
							11238127.40	3814213.03	18.61	8.78
							11238120.78	3814212.50	18.61	8.82
							11238120.58	3814215.48	18.61	8.81
							11238117.10	3814215.13	18.61	8.84
							11238116.49	3814220.84	18.61	8.83
							11238117.73	3814220.90	18.61	8.82
							11238117.52	3814223.95	18.61	8.82
							11238118.78	3814224.05	18.61	8.81
							11238118.50	3814226.50	18.61	8.81
							11238116.47	3814226.37	18.61	8.82
							11238116.05	3814232.93	18.61	8.82
							11238119.15	3814233.30	18.61	8.80
							11238118.89	3814236.34	18.61	8.81
							11238126.87	3814236.97	18.61	8.80
							11238127.06	3814235.74	18.61	8.79
							11238130.34	3814236.03	18.61	8.79
							11238130.23	3814237.29	18.61	8.80
							11238135.07	3814237.81	18.61	8.79
							11238135.16	3814236.77	18.61	8.79
							11238137.87	3814236.95	18.61	8.78
							11238137.94	3814238.01	18.61	8.79
							11238142.84	3814238.34	18.61	8.79
							11238142.93	3814236.78	18.61	8.77
							11238145.70	3814237.04	18.61	8.77
							11238145.57	3814238.45	18.61	8.78
							11238151.09	3814238.63	18.61	8.78
							11238151.37	3814235.03	18.61	8.75
							11238154.39	3814235.19	18.61	8.75
							11238153.66	3814241.91	18.61	8.80
							11238151.03	3814241.70	18.61	8.80
							11238150.79	3814244.75	18.61	8.82

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238152.42	3814244.85	18.61	8.82
								11238152.29	3814247.48	18.61	8.84
								11238154.60	3814247.79	18.61	8.84
								11238153.93	3814254.00	18.61	8.77
								11238151.03	3814253.68	18.61	8.77
								11238151.24	3814250.00	18.61	8.81
								11238146.30	3814249.58	18.61	8.80
								11238146.24	3814250.82	18.61	8.79
								11238142.93	3814250.81	18.61	8.78
								11238143.05	3814248.84	18.61	8.80
								11238138.53	3814248.42	18.61	8.80
								11238138.53	3814249.37	18.61	8.79
								11238131.60	3814248.74	18.61	8.78
								11238131.49	3814247.79	18.61	8.79
								11238122.57	3814247.06	18.61	8.78
								11238122.57	3814247.79	18.61	8.78
								11238119.62	3814247.69	18.61	8.81
								11238119.83	3814246.43	18.61	8.80
								11238111.96	3814245.80	18.61	8.85
								11238111.75	3814248.53	18.61	8.86
								11238110.17	3814248.63	18.61	8.85
								11238109.75	3814253.57	18.61	8.86
								11238107.44	3814253.47	18.61	8.85
								11238107.23	3814254.94	18.61	8.85
								11238109.65	3814255.15	18.61	8.86
								11238109.44	3814257.67	18.61	8.87
								11238108.17	3814257.77	18.61	8.86
								11238108.17	3814260.61	18.61	8.86
								11238106.70	3814260.61	18.61	8.85
			x	0		4.60	r	11238097.36	3814231.78	13.44	8.84
								11238106.36	3814232.57	13.44	8.84
								11238107.15	3814224.83	13.44	8.84
								11238110.06	3814225.16	13.44	8.84
								11238110.59	3814216.69	13.44	8.84
								11238107.68	3814216.44	13.44	8.84
								11238108.21	3814210.54	13.44	8.84
								11238104.31	3814210.14	13.44	8.84
								11238104.24	3814211.66	13.44	8.84
								11238100.20	3814211.26	13.44	8.84
								11238099.94	3814213.25	13.44	8.84
								11238096.56	3814212.92	13.44	8.84
								11238097.03	3814209.74	13.44	8.84
								11238088.95	3814208.88	13.44	8.87
								11238088.23	3814214.70	13.44	8.86
								11238080.15	3814214.17	13.44	9.07
								11238079.56	3814222.05	13.44	8.98
								11238098.22	3814223.90	13.44	8.84
			x	0		6.70	r	11237905.46	3814205.38	18.34	11.64
								11237914.47	3814205.18	18.34	11.59
								11237914.43	3814204.36	18.34	11.58
								11237923.12	3814203.86	18.34	11.53
								11237923.13	3814204.51	18.34	11.54
								11237932.31	3814203.84	18.34	11.50
								11237932.04	3814199.06	18.34	11.50
								11237932.94	3814199.01	18.34	11.50
								11237932.73	3814195.02	18.34	11.50
								11237927.74	3814195.33	18.34	11.50
								11237927.74	3814193.13	18.34	11.50
								11237929.89	3814192.97	18.34	11.50
								11237929.06	3814180.72	18.34	11.50
								11237926.72	3814181.05	18.34	11.50
								11237926.64	3814176.71	18.34	11.50
								11237928.76	3814176.52	18.34	11.50

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237927.92	3814163.93	18.34	11.50
								11237925.76	3814164.09	18.34	11.50
								11237925.76	3814160.17	18.34	11.50
								11237927.84	3814159.92	18.34	11.50
								11237927.34	3814148.00	18.34	11.50
								11237925.09	3814148.17	18.34	11.50
								11237924.92	3814146.00	18.34	11.50
								11237929.92	3814145.67	18.34	11.50
								11237929.63	3814141.37	18.34	11.50
								11237928.38	3814141.37	18.34	11.50
								11237928.34	3814137.33	18.34	11.50
								11237921.63	3814137.66	18.34	11.51
								11237921.59	3814136.87	18.34	11.52
								11237919.59	3814137.00	18.34	11.52
								11237919.59	3814137.96	18.34	11.52
								11237910.66	3814138.46	18.34	11.55
								11237910.54	3814137.66	18.34	11.55
								11237908.40	3814137.96	18.34	11.56
								11237908.44	3814138.69	18.34	11.55
								11237901.91	3814139.04	18.34	11.58
								11237902.12	3814143.33	18.34	11.55
								11237901.04	3814143.33	18.34	11.56
								11237901.24	3814147.42	18.34	11.53
								11237906.23	3814147.16	18.34	11.52
								11237906.41	3814149.29	18.34	11.50
								11237904.08	3814149.46	18.34	11.51
								11237904.83	3814161.72	18.34	11.50
								11237907.25	3814161.55	18.34	11.50
								11237907.41	3814165.64	18.34	11.50
								11237905.16	3814165.89	18.34	11.50
								11237906.00	3814177.97	18.34	11.50
								11237907.83	3814177.81	18.34	11.50
								11237908.08	3814182.06	18.34	11.50
								11237906.08	3814182.48	18.34	11.50
								11237906.87	3814194.52	18.34	11.52
								11237909.12	3814194.26	18.34	11.50
								11237909.19	3814196.57	18.34	11.53
								11237904.19	3814196.84	18.34	11.55
								11237904.45	3814201.12	18.34	11.60
								11237905.35	3814201.07	18.34	11.60
			x	0		9.75	r	11238039.03	3814154.34	18.89	9.14
								11238038.54	3814160.90	18.89	9.27
								11238040.69	3814161.10	18.89	9.28
								11238040.44	3814163.68	18.89	9.32
								11238039.44	3814163.68	18.89	9.31
								11238039.28	3814166.27	18.89	9.35
								11238037.86	3814166.27	18.89	9.34
								11238037.61	3814172.19	18.89	9.43
								11238040.94	3814172.44	18.89	9.45
								11238040.69	3814175.94	18.89	9.50
								11238047.20	3814176.27	18.89	9.55
								11238047.61	3814171.52	18.89	9.48
								11238052.53	3814171.94	18.89	9.48
								11238052.12	3814176.94	18.89	9.58
								11238057.20	3814177.35	18.89	9.59
								11238057.28	3814176.52	18.89	9.57
								11238063.29	3814176.94	18.89	9.55
								11238063.20	3814178.02	18.89	9.57
								11238067.87	3814178.52	18.89	9.55
								11238068.29	3814176.06	18.89	9.50
								11238073.42	3814176.44	18.89	9.48
								11238073.29	3814177.35	18.89	9.50
								11238077.13	3814177.77	18.89	9.45

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238077.09	3814178.52	18.89	9.46
								11238080.05	3814178.77	18.89	9.42
								11238079.96	3814179.77	18.89	9.43
								11238089.63	3814180.36	18.89	9.31
								11238089.80	3814179.48	18.89	9.30
								11238092.47	3814179.69	18.89	9.27
								11238092.89	3814176.02	18.89	9.23
								11238098.22	3814176.52	18.89	9.16
								11238097.64	3814181.11	18.89	9.21
								11238104.47	3814181.69	18.89	9.13
								11238104.61	3814178.58	18.89	9.10
								11238108.51	3814178.91	18.89	9.06
								11238108.97	3814173.35	18.89	9.01
								11238107.44	3814173.24	18.89	9.01
								11238108.78	3814158.07	18.89	8.86
								11238042.87	3814151.71	18.89	9.08
								11238042.54	3814154.56	18.89	9.14
			x	0		9.75	r	11237904.07	3814078.49	17.44	7.69
								11237909.95	3814086.21	17.44	7.65
								11237912.05	3814084.16	17.44	7.65
								11237913.15	3814085.47	17.44	7.65
								11237912.42	3814086.21	17.44	7.67
								11237917.51	3814092.72	17.44	7.64
								11237924.66	3814086.79	17.44	7.57
								11237926.07	3814088.52	17.44	7.59
								11237928.99	3814085.74	17.44	7.58
								11237929.44	3814086.26	17.44	7.59
								11237937.05	3814079.91	17.44	7.58
								11237936.21	3814078.86	17.44	7.57
								11237938.31	3814077.12	17.44	7.57
								11237938.68	3814077.60	17.44	7.58
								11237942.20	3814074.81	17.44	7.57
								11237941.25	3814073.66	17.44	7.56
								11237946.14	3814069.72	17.44	7.56
								11237946.77	3814070.35	17.44	7.57
								11237948.66	3814068.56	17.44	7.56
								11237949.60	3814069.46	17.44	7.57
								11237957.06	3814063.26	17.44	7.58
								11237956.22	3814062.21	17.44	7.58
								11237958.47	3814060.48	17.44	7.58
								11237955.38	3814056.64	17.44	7.55
								11237956.54	3814055.59	17.44	7.55
								11237958.64	3814057.90	17.44	7.57
								11237965.99	3814052.23	17.44	7.57
								11237964.24	3814049.73	17.44	7.54
								11237965.57	3814048.56	17.44	7.53
								11237920.72	3813989.94	17.44	6.81
								11237912.53	3813997.09	17.44	6.88
								11237914.31	3813999.19	17.44	6.88
								11237913.05	3814000.03	17.44	6.90
								11237911.37	3813997.82	17.44	6.90
								11237903.81	3814004.23	17.44	7.02
								11237905.59	3814006.44	17.44	7.02
								11237904.33	3814007.17	17.44	7.04
								11237907.69	3814011.16	17.44	7.03
								11237909.27	3814009.80	17.44	7.01
								11237910.95	3814012.00	17.44	7.01
								11237910.00	3814012.74	17.44	7.03
								11237911.90	3814014.94	17.44	7.03
								11237910.85	3814015.89	17.44	7.04
								11237917.15	3814023.66	17.44	7.06
								11237918.30	3814022.82	17.44	7.04
								11237921.67	3814027.13	17.44	7.09

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237920.51	3814028.08	17.44	7.10
								11237926.39	3814036.27	17.44	7.22
								11237927.55	3814035.32	17.44	7.21
								11237930.70	3814039.32	17.44	7.27
								11237929.33	3814040.58	17.44	7.28
								11237932.51	3814044.55	17.44	7.34
								11237933.24	3814044.08	17.44	7.34
								11237935.69	3814047.39	17.44	7.39
								11237937.14	3814045.67	17.44	7.37
								11237938.00	3814046.60	17.44	7.39
								11237938.67	3814046.10	17.44	7.38
								11237941.09	3814049.27	17.44	7.43
								11237942.17	3814049.35	17.44	7.44
								11237941.92	3814050.18	17.44	7.44
								11237942.09	3814051.85	17.44	7.46
								11237939.17	3814053.60	17.44	7.46
								11237938.42	3814053.18	17.44	7.46
								11237935.42	3814055.77	17.44	7.45
								11237934.75	3814055.02	17.44	7.44
								11237934.08	3814055.52	17.44	7.44
								11237932.58	3814053.52	17.44	7.43
								11237929.00	3814056.35	17.44	7.42
								11237929.75	3814057.27	17.44	7.43
								11237927.91	3814058.69	17.44	7.43
								11237927.16	3814057.35	17.44	7.42
								11237919.33	3814063.94	17.44	7.42
								11237920.08	3814064.77	17.44	7.43
								11237916.03	3814068.10	17.44	7.43
								11237915.17	3814067.34	17.44	7.44
								11237914.16	3814068.44	17.44	7.47
								11237915.82	3814070.11	17.44	7.45
								11237914.10	3814071.65	17.44	7.50
								11237913.49	3814070.86	17.44	7.50
								11237909.55	3814074.43	17.44	7.61
								11237909.97	3814074.85	17.44	7.60
								11237907.93	3814076.62	17.44	7.66
								11237906.24	3814074.64	17.44	7.67
								11237905.33	3814075.52	17.44	7.69
								11237906.14	3814076.48	17.44	7.69
			x	0		4.60	r	11237881.78	3814008.79	11.88	7.28
								11237891.07	3814025.96	11.88	7.31
								11237893.17	3814024.65	11.88	7.28
								11237893.49	3814025.39	11.88	7.28
								11237895.54	3814024.13	11.88	7.25
								11237895.22	3814023.60	11.88	7.25
								11237897.43	3814022.39	11.88	7.22
								11237899.74	3814021.08	11.88	7.19
								11237895.70	3814013.52	11.88	7.17
								11237898.69	3814011.78	11.88	7.13
								11237895.49	3814005.48	11.88	7.11
								11237897.74	3814004.22	11.88	7.08
								11237895.07	3813999.55	11.88	7.15
								11237893.17	3814000.70	11.88	7.17
								11237892.65	3813999.81	11.88	7.18
								11237891.39	3814000.91	11.88	7.19
								11237890.50	3813999.28	11.88	7.23
								11237887.71	3814001.23	11.88	7.25
								11237888.34	3814002.59	11.88	7.23
								11237886.92	3814003.38	11.88	7.24
								11237887.34	3814004.11	11.88	7.23
								11237883.93	3814006.11	11.88	7.27
								11237884.56	3814007.11	11.88	7.25
			x	0		9.75	r	11237824.66	3813980.79	17.23	7.48

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11237875.27	3813944.25	17.23	7.41
							11237897.74	3813973.02	17.23	7.33
							11237883.25	3813983.52	17.23	7.31
							11237871.49	3813968.61	17.23	7.42
							11237835.16	3813995.91	17.23	7.33

Geometrie Höhenlinien

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237871.28	3814268.78	13.40
						11237882.03	3814269.78	11.90
						11237895.54	3814270.95	11.60
						11237910.79	3814272.20	11.00
						11237946.38	3814275.70	11.00
						11237960.87	3814277.35	10.70
						11238006.05	3814281.45	10.50
						11238074.42	3814287.97	10.10
						11238128.34	3814292.90	9.15
						11238169.52	3814296.90	8.54
						11238187.85	3814298.40	9.15
						11238186.80	3814204.20	7.93
						11237865.11	3814280.70	12.20
						11237919.09	3814284.91	11.00
						11238073.25	3814299.82	11.00
						11238250.89	3814315.71	10.10
						11237881.92	3814269.56	11.90
						11237880.84	3814250.05	13.10
						11237880.31	3814214.13	13.10
						11237879.47	3814200.69	13.40
						11237878.61	3814185.47	13.70
						11237876.44	3814158.13	12.80
						11237869.11	3814116.46	13.40
						11237862.61	3814092.28	14.90
						11237859.87	3814081.36	14.00
						11237854.83	3814065.92	13.70
						11237846.22	3814043.24	12.30
						11237832.15	3814014.88	11.90
						11237818.29	3813991.15	10.80
						11237902.99	3814212.44	11.60
						11237901.21	3814224.35	11.50
						11237900.28	3814243.40	11.50
						11237902.00	3814246.57	11.50
						11237950.17	3814249.75	11.00
						11237953.34	3814243.13	11.00
						11237958.77	3814244.06	11.00
						11237960.35	3814251.21	10.90
						11237989.86	3814253.46	10.90
						11238007.73	3814255.18	10.70
						11238009.71	3814251.60	10.70
						11238012.09	3814224.48	11.30
						11238004.75	3814221.37	11.30
						11237962.54	3814218.13	11.00
						11237942.76	3814216.34	11.00
						11237905.17	3814212.56	11.60
						11238034.49	3814231.70	10.40
						11238032.99	3814240.04	10.50
						11238032.90	3814255.29	10.40
						11238037.07	3814258.71	10.40
						11238071.50	3814261.46	9.76
						11238099.75	3814264.05	8.84
						11238103.51	3814259.21	8.84

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11238102.92	3814241.21	8.84
						11238097.59	3814236.29	8.84
						11238036.24	3814231.12	10.40
						11238112.56	3814239.62	8.84
						11238108.46	3814246.89	8.84
						11238105.41	3814257.35	8.84
						11238103.30	3814270.71	8.84
						11238114.15	3814274.15	8.93
						11238162.18	3814277.99	8.54
						11238169.19	3814272.83	8.54
						11238172.37	3814250.73	8.84
						11238172.50	3814218.98	8.84
						11238164.30	3814210.64	8.54
						11238121.56	3814208.39	8.84
						11238114.94	3814217.25	8.84
						11238112.16	3814239.35	8.84
						11238112.72	3814207.99	8.84
						11238091.71	3814201.80	8.84
						11238077.95	3814210.62	9.15
						11238074.07	3814220.91	8.99
						11238085.10	3814231.21	8.84
						11238099.06	3814234.46	8.84
						11238035.65	3814154.34	9.15
						11238032.74	3814175.25	9.45
						11238059.21	3814185.97	9.76
						11238107.77	3814188.61	9.15
						11238122.06	3814164.66	9.15
						11238120.07	3814155.53	9.15
						11237903.76	3814209.71	11.70
						11237902.44	3814191.06	11.50
						11237901.25	3814153.21	11.50
						11237899.92	3814136.14	11.60
						11237930.89	3814133.89	11.50
						11237935.25	3814206.67	11.50
						11237933.93	3814132.97	11.50
						11237963.18	3814143.95	11.00
						11237993.61	3814171.60	9.45
						11238023.78	3814173.72	9.76
						11237898.20	3814133.45	11.00
						11237897.36	3814121.11	8.54
						11237893.03	3814100.94	7.62
						11237880.03	3814067.93	7.62
						11237861.35	3814016.74	7.62
						11237844.60	3814008.66	7.32
						11237824.93	3813996.32	7.32
						11237916.25	3814099.08	7.93
						11237901.43	3814082.14	7.62
						11237900.90	3814072.35	7.74
						11237912.78	3814050.56	7.32
						11237892.08	3814029.08	7.32
						11237877.91	3814010.91	7.32
						11237871.24	3813998.24	7.26
						11237854.43	3813994.25	7.32
						11237831.96	3813999.08	7.30
						11237821.24	3813984.16	7.32
						11237825.75	3813978.00	7.56
						11237860.61	3813946.91	7.56
						11237881.20	3813937.25	7.32
						11237900.52	3813973.37	7.32
						11237925.85	3813991.70	6.71
						11237971.28	3814054.17	7.62
						11237957.78	3814072.04	7.62
						11237921.26	3814097.71	7.62

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237984.06	3814104.64	11.30
						11238018.30	3814121.86	10.40
						11238056.65	3814140.87	8.84
						11238109.00	3814156.21	8.84

Geometrie Bruchkanten

Name	M.	ID	Coordinates	
			x	y
			(m)	(m)

Bericht (Cumltv plus Prj 3rd Floor Rcvrs.cna)

Gruppentabelle Tag und Nacht

Name	Expression	R 7-1C		R 7-2C		R 7-3C		R 7-4C		R 7-5C		R 7-6C		R 7-7C		R 7-8C		R 7-9(	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	N

Source																			
Name	M.	ID	R 7-1C		R 7-2C		R 7-3C		R 7-4C		R 7-5C		R 7-6C		R 7-7C		R 7-8C		
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	
Los Carneros Road																	38.3		
US 101 SB Onramp													46.9		44.4		28.7		
US 101 SB Offramp																			
US 101 SB															23.3		22.8		
US 101 SB			64.1	-83.4	63.9	-83.6	62.6	-85.2	62.4	-85.3	59.5		57.3		53.0		37.5		
US 101 NB			52.0		51.2		55.6		55.3		56.8		53.3		51.1		35.7		
US 101 NB															21.2		21.9		
UPRR			49.8	49.8	50.2	50.2	50.7	50.7	51.2	51.2	51.4	51.4	39.4	39.4	40.7	40.7	39.7	39.7	
UPRR			71.0	71.0	71.2	71.2	71.6	71.6	71.6	71.6	68.5	68.5	63.8	63.8	58.6	58.6	49.1	49.1	

Schallquellen

Punktquellen

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night	
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)

Linienquellen

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen vertikal

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Schienen

Name	M.	ID	Lm,E		Train Class	Add.Level				Vmax
			Day	Night		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0						
UPRR			78.0	78.0						

Zugklassen

Name	M.	ID	Lm,E		Train Class										Add.Level				Vmax
			Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night	(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0																
UPRR			78.0	78.0																

Name	Lm,E		Train Class										
	Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)	
	(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night

Parkplätze

Name	M.	ID	Type	Lwa			Event Data						Penalty Type		Penalty Surface		A
				Day	Special	Night	Ref. Quantity	Number B	No. Spaces/RefQ	Events/h/RefQ			Kpa	Type	Kstro	Surface	
				(dBA)	(dBA)	(dBA)				Day	Special	Night	(dB)		(dB)		

Strassen

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	S
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Ds
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(d
Los Carneros Road			70.2	0.0	0.0			3333.0	0.0	0.0	5.0	0.0	0.0	72		RQ 20	
US 101 SB Onramp			66.2	0.0	0.0			1339.0	0.0	0.0	5.0	0.0	0.0	72		RQ 12	
US 101 SB Offramp			61.8	0.0	0.0			190.0	0.0	0.0	5.0	0.0	0.0	100		RQ 12	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	

Ampeln

Name	M.	ID	Active			Height	Coordinates		
			Day	Evening	Night	Begin	X	Y	Z
						(m)	(m)	(m)	(m)

Immissionspunkte

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 7-1C			71.8	71.0	0.0	0.0		x	Total	7.60	r	11238158.88	3814274.45	16.17
R 7-2C			72.0	71.2	0.0	0.0		x	Total	7.60	r	11238145.19	3814273.08	16.27
R 7-3C			72.2	71.6	0.0	0.0		x	Total	7.60	r	11238128.68	3814272.48	16.40
R 7-4C			72.2	71.6	0.0	0.0		x	Total	7.60	r	11238111.97	3814270.98	16.51
R 7-5C			69.3	68.5	0.0	0.0		x	Total	7.60	r	11238105.86	3814263.69	16.45
R 7-6C			65.0	63.8	0.0	0.0		x	Total	7.60	r	11238107.53	3814258.72	16.46
R 7-7C			60.4	58.6	0.0	0.0		x	Total	7.60	r	11238109.36	3814250.46	16.45
R 7-8C			50.3	49.6	0.0	0.0		x	Total	7.60	r	11238117.34	3814245.69	16.42
R 7-9C			50.2	49.3	0.0	0.0		x	Total	7.60	r	11238129.68	3814247.19	16.39
R 7-10C			55.3	54.7	0.0	0.0		x	Total	7.60	r	11238139.98	3814238.42	16.39
R 7-11C			55.2	54.6	0.0	0.0		x	Total	7.60	r	11238132.71	3814238.00	16.40
R 7-12C			55.0	54.4	0.0	0.0		x	Total	7.60	r	11238122.29	3814237.03	16.41
R 7-13C			58.3	56.5	0.0	0.0		x	Total	7.60	r	11238115.68	3814231.37	16.43
R 7-14C			57.6	55.9	0.0	0.0		x	Total	7.60	r	11238117.37	3814222.06	16.42
R 7-15C			51.8	51.1	0.0	0.0		x	Total	7.60	r	11238124.18	3814211.84	16.40
R 7-16C			63.3	60.0	0.0	0.0		x	Total	7.60	r	11238167.78	3814224.98	16.27
R 7-17C			61.6	58.5	0.0	0.0		x	Total	7.60	r	11238165.37	3814240.73	16.37
R 7-18C			65.7	63.0	0.0	0.0		x	Total	7.60	r	11238167.76	3814253.05	16.41
R 7-19C			67.4	65.7	0.0	0.0		x	Total	7.60	r	11238163.26	3814267.75	16.25
R 8-1C			70.9	70.1	0.0	0.0		x	Total	7.60	r	11238095.94	3814262.98	16.56
R 8-2C			71.0	70.3	0.0	0.0		x	Total	7.60	r	11238091.05	3814262.56	16.72

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 8-3C			70.8	70.1	0.0	0.0		x	Total	7.60	r	11238082.91	3814260.93	16.98
R 8-4C			71.0	70.2	0.0	0.0		x	Total	7.60	r	11238077.03	3814261.14	17.18
R 8-5C			70.9	70.0	0.0	0.0		x	Total	7.60	r	11238070.78	3814259.57	17.36
R 8-6C			70.5	69.6	0.0	0.0		x	Total	7.60	r	11238063.82	3814257.53	17.51
R 8-7C			71.0	70.2	0.0	0.0		x	Total	7.60	r	11238058.76	3814259.29	17.60
R 8-8C			71.1	70.3	0.0	0.0		x	Total	7.60	r	11238051.34	3814258.62	17.74
R 8-9C			71.0	70.3	0.0	0.0		x	Total	7.60	r	11238044.92	3814258.04	17.86
R 8-10C			71.1	70.3	0.0	0.0		x	Total	7.60	r	11238038.91	3814257.62	17.97
R 8-11C			69.2	68.3	0.0	0.0		x	Total	7.60	r	11238035.70	3814252.75	18.03
R 8-12C			60.4	58.9	0.0	0.0		x	Total	7.60	r	11238036.20	3814245.83	18.03
R 8-13C			66.4	65.2	0.0	0.0		x	Total	7.60	r	11238034.70	3814242.25	18.07
R 8-14C			66.4	65.2	0.0	0.0		x	Total	7.60	r	11238034.12	3814238.16	18.07
R 8-15C			53.6	52.7	0.0	0.0		x	Total	7.60	r	11238037.20	3814235.58	18.00
R 8-16C			50.1	48.5	0.0	0.0		x	Total	7.60	r	11238041.79	3814233.08	17.87
R 8-17C			49.5	48.3	0.0	0.0		x	Total	7.60	r	11238050.79	3814234.66	17.65
R 8-18C			48.5	47.0	0.0	0.0		x	Total	7.60	r	11238073.05	3814235.66	17.08
R 8-19C			49.0	47.1	0.0	0.0		x	Total	7.60	r	11238092.32	3814237.58	16.59
R 8-20C			49.4	47.2	0.0	0.0		x	Total	7.60	r	11238097.48	3814238.25	16.45
R 8-21C			51.5	50.6	0.0	0.0		x	Total	7.60	r	11238099.57	3814242.92	16.44
R 8-22C			51.7	50.8	0.0	0.0		x	Total	7.60	r	11238099.32	3814249.25	16.44
R 8-23C			50.7	50.0	0.0	0.0		x	Total	7.60	r	11238100.15	3814252.50	16.44
R 8-24C			66.5	65.2	0.0	0.0		x	Total	7.60	r	11238100.82	3814257.51	16.44
R2-1C			63.4	61.6	0.0	0.0		x	Total	7.60	r	11237916.87	3814093.05	15.24
R2-2C			63.4	61.6	0.0	0.0		x	Total	7.60	r	11237911.83	3814086.96	15.26
R2-3C			63.8	61.8	0.0	0.0		x	Total	7.60	r	11237907.84	3814085.07	15.25
R2-4C			63.8	61.8	0.0	0.0		x	Total	7.60	r	11237903.85	3814080.45	15.27
R2-5C			62.4	59.8	0.0	0.0		x	Total	7.60	r	11237905.11	3814076.46	15.30
R2-6C			57.5	51.4	0.0	0.0		x	Total	7.60	r	11237911.41	3814071.62	15.15
R2-7C			57.3	52.0	0.0	0.0		x	Total	7.60	r	11237917.71	3814065.53	15.02
R2-8C			57.9	54.5	0.0	0.0		x	Total	7.60	r	11237924.85	3814058.18	15.01
R2-9C			56.8	52.4	0.0	0.0		x	Total	7.60	r	11237931.15	3814054.19	15.02
R2-10C			54.9	48.7	0.0	0.0		x	Total	7.60	r	11237936.41	3814052.93	15.04
R2-11C			58.9	56.7	0.0	0.0		x	Total	7.60	r	11237933.89	3814046.84	14.97
R2-12C			60.4	58.7	0.0	0.0		x	Total	7.60	r	11237929.05	3814041.59	14.89
R2-13C			61.1	59.6	0.0	0.0		x	Total	7.60	r	11237922.96	3814033.40	14.77
R2-14C			61.5	59.8	0.0	0.0		x	Total	7.60	r	11237915.40	3814023.32	14.67
R2-15C			61.5	59.9	0.0	0.0		x	Total	7.60	r	11237910.36	3814016.60	14.66
R2-16C			61.6	60.0	0.0	0.0		x	Total	7.60	r	11237904.69	3814008.41	14.64
R2-17C			58.4	54.9	0.0	0.0		x	Total	7.60	r	11237905.53	3814001.90	14.58
R2-18C			56.9	52.2	0.0	0.0		x	Total	7.60	r	11237908.89	3813998.96	14.53
R2-19C			56.0	51.0	0.0	0.0		x	Total	7.60	r	11237914.35	3813994.34	14.48
R2-20C			55.2	49.3	0.0	0.0		x	Total	7.60	r	11237917.92	3813991.82	14.44
R2-21C			46.7	46.4	0.0	0.0		x	Total	7.60	r	11237925.48	3813995.60	14.35
R2-22C			47.1	46.7	0.0	0.0		x	Total	7.60	r	11237935.78	3814009.04	14.55
R2-23C			47.4	47.2	0.0	0.0		x	Total	7.60	r	11237947.96	3814024.79	14.78
R2-24C			48.2	47.8	0.0	0.0		x	Total	7.60	r	11237960.56	3814040.96	15.02
R2-25C			57.6	56.4	0.0	0.0		x	Total	7.60	r	11237962.45	3814056.29	15.18
R2-26C			60.3	59.0	0.0	0.0		x	Total	7.60	r	11237951.11	3814068.68	15.17
R2-27C			60.1	58.8	0.0	0.0		x	Total	7.60	r	11237956.15	3814064.69	15.18
R2-28C			59.9	58.8	0.0	0.0		x	Total	7.60	r	11237941.24	3814076.04	15.18
R2-29C			61.1	59.9	0.0	0.0		x	Total	7.60	r	11237935.57	3814081.92	15.19
R2-30C			62.3	61.0	0.0	0.0		x	Total	7.60	r	11237927.16	3814088.22	15.19
R6-1C			57.5	56.5	0.0	0.0		x	Total	7.60	r	11238102.76	3814182.07	16.76
R6-2C			57.6	56.5	0.0	0.0		x	Total	7.60	r	11238087.19	3814180.63	16.95
R6-3C			59.7	58.2	0.0	0.0		x	Total	7.60	r	11238054.90	3814177.76	17.20
R6-4C			60.1	58.5	0.0	0.0		x	Total	7.60	r	11238037.24	3814169.05	16.98
R6-5C			59.5	58.1	0.0	0.0		x	Total	7.60	r	11238038.29	3814157.89	16.82
R6-6C			49.2	46.3	0.0	0.0		x	Total	7.60	r	11238050.67	3814151.80	16.67
R1-1C			64.5	61.4	0.0	0.0		x	Total	7.60	r	11237833.27	3813996.54	14.93
R1-2C			64.4	61.2	0.0	0.0		x	Total	7.60	r	11237824.45	3813983.73	15.01
R1-3C			60.4	48.8	0.0	0.0		x	Total	7.60	r	11237833.27	3813973.23	15.15
R1-4C			56.8	48.8	0.0	0.0		x	Total	7.60	r	11237867.71	3813948.03	15.10
R1-5C			47.2	46.4	0.0	0.0		x	Total	7.60	r	11237883.04	3813953.70	14.98

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R1-6C			61.4	59.9	0.0	0.0		x	Total	7.60	r	11237889.97	3813979.95	14.91
R1-7C			61.8	60.1	0.0	0.0		x	Total	7.60	r	11237880.10	3813982.05	14.92
R1-8C			61.5	60.1	0.0	0.0		x	Total	7.60	r	11237872.75	3813973.02	14.99
R1-9C			62.2	60.4	0.0	0.0		x	Total	7.60	r	11237860.99	3813977.22	15.00
R1-10C			63.5	61.1	0.0	0.0		x	Total	7.60	r	11237843.77	3813990.45	14.98

Gebietsausweisungen

Name	M.	ID	Type	Persons
				(1/km²)

Hindernisse

Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			
			left	right		horz.	vert.	Begin		End	
					(m)	(m)	(m)	(m)		(m)	

Häuser

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		3.65	r
			x	0		3.65	r
			x	0		6.70	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		9.75	r

Bewuchs

Name	M.	ID	Height
			(m)

Bebauung

Name	M.	ID	Type	Attenuation	B	m	Height
				dB/100m	%	1/m	(m)

Geometriedaten

Geometrie Linienquellen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Flächenquellen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Parkplätze

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Straßen

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		
Los Carneros Road					11237697.29	3813908.86	7.62	7.60		
					11237759.07	3813961.83	10.67	10.70		
					11237782.99	3813989.66	10.67	11.00		
					11237808.40	3814029.18	12.50	12.50		
					11237829.81	3814079.44	12.80	14.00		
					11237845.52	3814131.11	14.33	16.00		
					11237849.30	3814230.44	14.94	18.50		
					11237851.61	3814289.45	16.76	21.30		
					11237854.07	3814329.87	18.29	21.50		
					11237857.43	3814385.23	18.29	18.29		
					11237861.66	3814452.97	16.46	16.46		
US 101 SB Onramp					11237862.91	3814329.11	14.33	21.50		
					11237917.30	3814334.68	14.63	19.00		
					11237998.36	3814343.08	14.63	15.80		
					11238188.34	3814363.72	10.36	12.20		
					11238396.35	3814383.05	9.75	10.40		
US 101 SB Offramp					11237577.38	3814297.86	12.19	12.19		
					11237682.81	3814309.20	14.33	14.33		
					11237760.93	3814317.60	14.33	18.00		
					11237844.93	3814327.68	14.00	21.50		
US 101 SB					11237580.17	3814319.88	12.80	12.80		
					11237676.48	3814338.40	12.50	12.50		
					11237752.15	3814353.33	12.19	12.19		
					11237789.19	3814359.46	12.19	12.19		
					11237847.26	3814365.39	12.50	12.50		
US 101 SB					11237865.59	3814369.12	12.50	12.50		
					11237906.40	3814372.39	11.28	11.28		
					11237997.12	3814376.59	10.97	10.97		
					11238183.92	3814379.77	10.97	10.97		
					11238395.93	3814392.44	10.36	10.36		
US 101 NB					11238394.07	3814413.64	9.14	9.14		
					11238181.55	3814403.56	9.75	9.75		
					11237995.91	3814396.84	11.28	11.28		
					11237901.83	3814389.28	10.67	10.67		
					11237866.49	3814386.68	12.50	12.50		
US 101 NB					11237847.87	3814383.91	12.50	12.50		
					11237786.75	3814375.84	12.19	12.19		
					11237748.95	3814369.96	12.19	12.19		
					11237674.19	3814356.52	13.11	13.11		
					11237577.59	3814337.20	12.50	12.50		

Geometrie Schienen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)
UPRR	12.50	a	12.50	a	11237570.03	3814262.43	12.50	1.88
					11237838.85	3814285.11	12.50	11.38
UPRR	12.50	a	8.53	a	11237861.86	3814287.47	12.50	11.58
					11238395.28	3814332.85	8.53	0.89

Geometrie Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
			left	right		horz.	vert.	Begin		End		x	y	z	Ground
					(m)	(m)	(m)	(m)		(m)		(m)	(m)	(m)	(m)
												11237880.37	3814214.17	14.90	13.10
												11237881.18	3814251.51	14.90	13.10
												11237882.02	3814269.67	13.70	11.90
												11237895.41	3814270.84	13.40	11.60
												11237911.06	3814272.16	12.80	11.00
												11237945.61	3814275.47	12.80	11.00
												11237961.46	3814277.18	12.50	10.70
												11238006.41	3814281.33	12.30	10.50
												11238074.37	3814287.71	11.90	10.10
												11238128.78	3814292.54	10.95	9.15
												11238169.64	3814296.43	10.34	8.54
												11238187.40	3814297.69	10.95	9.15

Geometrie Häuser

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		3.65	r	11238188.92	3814297.40	12.80	9.15
								11238194.21	3814297.14	12.80	9.21
								11238193.42	3814235.75	12.80	8.41
								11238220.94	3814234.69	12.80	8.50
								11238220.67	3814227.01	12.80	8.34
								11238187.86	3814229.66	12.80	8.27
								11238189.18	3814297.40	12.80	9.15
			x	0		3.65	r	11238198.18	3814176.74	11.11	7.46
								11238200.30	3814224.10	11.11	8.31
								11238237.34	3814223.31	11.11	8.24
								11238236.55	3814196.05	11.11	7.69
								11238223.32	3814196.32	11.11	7.71
								11238222.79	3814175.68	11.11	7.29
			x	0		6.70	r	11237903.99	3814215.91	18.27	11.57
								11237901.32	3814243.25	18.27	11.50
								11237905.31	3814243.57	18.27	11.46
								11237905.26	3814244.72	18.27	11.46
								11237909.41	3814244.98	18.27	11.42
								11237909.83	3814239.79	18.27	11.40
								11237911.82	3814239.94	18.27	11.38
								11237911.77	3814242.25	18.27	11.39
								11237923.27	3814243.15	18.27	11.27
								11237923.43	3814240.99	18.27	11.26
								11237927.52	3814241.41	18.27	11.22
								11237927.31	3814243.51	18.27	11.23
								11237939.07	3814244.68	18.27	11.11
								11237939.22	3814242.53	18.27	11.10
								11237941.17	3814242.68	18.27	11.08
								11237940.69	3814247.83	18.27	11.10
								11237944.63	3814248.15	18.27	11.05
								11237944.74	3814246.83	18.27	11.05
								11237948.73	3814247.15	18.27	11.01
								11237951.25	3814219.58	18.27	11.00
								11237947.26	3814219.27	18.27	11.00
								11237947.34	3814218.14	18.27	11.00
								11237943.38	3814217.89	18.27	11.00
								11237942.88	3814222.85	18.27	11.01
								11237941.01	3814222.81	18.27	11.03
								11237941.13	3814220.39	18.27	11.03
								11237913.61	3814218.28	18.27	11.40
								11237913.48	3814220.39	18.27	11.37
								11237911.36	3814220.19	18.27	11.41
								11237911.89	3814215.23	18.27	11.47
								11237907.92	3814214.84	18.27	11.53
								11237907.79	3814215.89	18.27	11.52

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237903.82	3814215.50	18.27	11.57
			x	0		6.70	r	11237960.36	3814248.60	17.64	10.94
								11237964.18	3814248.92	17.64	10.94
								11237964.17	3814249.98	17.64	10.92
								11237968.27	3814250.40	17.64	10.92
								11237968.69	3814245.25	17.64	10.97
								11237970.58	3814245.46	17.64	10.96
								11237970.37	3814247.66	17.64	10.96
								11237982.13	3814248.71	17.64	10.93
								11237982.45	3814246.30	17.64	10.93
								11237986.44	3814246.72	17.64	10.93
								11237986.23	3814249.03	17.64	10.91
								11237997.99	3814249.98	17.64	10.87
								11237998.10	3814247.77	17.64	10.91
								11237999.99	3814247.98	17.64	10.88
								11237999.57	3814253.13	17.64	10.80
								11238004.30	3814253.65	17.64	10.75
								11238004.33	3814252.58	17.64	10.75
								11238007.69	3814252.90	17.64	10.71
								11238010.07	3814225.08	17.64	11.27
								11238006.19	3814224.87	17.64	11.24
								11238006.29	3814223.72	17.64	11.26
								11238002.14	3814223.44	17.64	11.26
								11238001.77	3814228.23	17.64	11.21
								11237999.88	3814228.13	17.64	11.20
								11238000.02	3814226.06	17.64	11.22
								11237972.62	3814223.61	17.64	11.03
								11237972.36	3814225.92	17.64	11.01
								11237970.47	3814225.82	17.64	10.99
								11237971.00	3814220.46	17.64	11.05
								11237967.11	3814219.93	17.64	11.02
								11237966.80	3814221.40	17.64	11.00
								11237962.80	3814220.88	17.64	11.00
			x	0		9.75	r	11238034.68	3814235.95	20.20	10.45
								11238034.15	3814241.31	20.20	10.48
								11238035.41	3814241.31	20.20	10.45
								11238034.89	3814244.67	20.20	10.46
								11238036.99	3814244.88	20.20	10.42
								11238036.78	3814247.40	20.20	10.42
								11238034.26	3814247.29	20.20	10.46
								11238034.26	3814248.66	20.20	10.45
								11238036.57	3814248.97	20.20	10.42
								11238036.04	3814253.91	20.20	10.43
								11238037.51	3814254.12	20.20	10.40
								11238037.30	3814256.75	20.20	10.40
								11238046.44	3814257.59	20.20	10.23
								11238046.65	3814255.28	20.20	10.23
								11238048.96	3814255.49	20.20	10.18
								11238048.86	3814257.80	20.20	10.18
								11238060.52	3814258.85	20.20	9.97
								11238060.83	3814256.64	20.20	9.96
								11238065.56	3814257.06	20.20	9.87
								11238065.45	3814257.80	20.20	9.88
								11238069.44	3814258.11	20.20	9.78
								11238069.23	3814258.85	20.20	9.79
								11238072.65	3814259.11	20.20	9.71
								11238072.49	3814260.21	20.20	9.72
								11238081.66	3814261.05	20.20	9.43
								11238081.66	3814260.05	20.20	9.42
								11238084.75	3814260.46	20.20	9.32
								11238085.16	3814256.30	20.20	9.30
								11238090.42	3814257.05	20.20	9.13
								11238089.92	3814261.88	20.20	9.16

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238096.58	3814262.38	20.20	8.94
								11238096.75	3814259.05	20.20	8.93
								11238100.34	3814259.38	20.20	8.84
								11238101.09	3814253.71	20.20	8.84
								11238099.67	3814253.54	20.20	8.84
								11238099.92	3814250.54	20.20	8.84
								11238098.84	3814250.54	20.20	8.84
								11238099.00	3814247.71	20.20	8.84
								11238101.42	3814247.96	20.20	8.84
								11238101.25	3814246.21	20.20	8.84
								11238098.84	3814246.04	20.20	8.84
								11238099.25	3814241.12	20.20	8.84
								11238098.42	3814241.12	20.20	8.84
								11238098.50	3814238.70	20.20	8.84
								11238090.33	3814237.95	20.20	9.05
								11238090.33	3814238.70	20.20	9.05
								11238087.16	3814238.54	20.20	9.13
								11238087.33	3814237.37	20.20	9.12
								11238078.16	3814236.45	20.20	9.35
								11238077.99	3814237.37	20.20	9.36
								11238074.66	3814237.12	20.20	9.45
								11238074.74	3814236.04	20.20	9.44
								11238069.91	3814235.79	20.20	9.56
								11238069.82	3814236.79	20.20	9.57
								11238063.74	3814236.12	20.20	9.73
								11238063.74	3814235.16	20.20	9.72
								11238054.52	3814234.22	20.20	9.95
								11238054.48	3814235.37	20.20	9.96
								11238045.56	3814234.62	20.20	10.19
								11238045.56	3814233.62	20.20	10.18
								11238038.48	3814233.12	20.20	10.36
								11238038.14	3814236.12	20.20	10.38
			x	0		9.75	r	11238106.23	3814266.67	18.61	8.86
								11238109.59	3814266.88	18.61	8.88
								11238109.38	3814269.82	18.61	8.89
								11238116.31	3814270.66	18.61	8.90
								11238117.26	3814265.51	18.61	8.88
								11238122.10	3814265.85	18.61	8.84
								11238121.84	3814270.15	18.61	8.85
								11238124.75	3814270.28	18.61	8.83
								11238124.82	3814271.34	18.61	8.83
								11238134.15	3814272.07	18.61	8.76
								11238134.21	3814270.94	18.61	8.75
								11238137.45	3814271.34	18.61	8.73
								11238137.19	3814272.40	18.61	8.73
								11238141.94	3814272.82	18.61	8.69
								11238141.94	3814271.82	18.61	8.69
								11238148.11	3814272.57	18.61	8.64
								11238148.28	3814273.48	18.61	8.64
								11238152.86	3814273.98	18.61	8.61
								11238152.95	3814273.07	18.61	8.60
								11238160.89	3814273.86	18.61	8.58
								11238161.15	3814270.95	18.61	8.61
								11238162.54	3814271.08	18.61	8.61
								11238162.81	3814266.25	18.61	8.66
								11238165.25	3814266.45	18.61	8.66
								11238165.32	3814264.80	18.61	8.68
								11238162.87	3814264.66	18.61	8.68
								11238163.14	3814262.15	18.61	8.70
								11238166.25	3814262.55	18.61	8.71
								11238166.31	3814260.89	18.61	8.72
								11238164.13	3814260.69	18.61	8.72
								11238164.33	3814258.31	18.61	8.75

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11238166.64	3814258.51	18.61	8.75
							11238167.64	3814247.33	18.61	8.82
							11238167.64	3814246.00	18.61	8.81
							11238163.72	3814245.67	18.61	8.81
							11238163.89	3814241.75	18.61	8.78
							11238164.78	3814241.78	18.61	8.78
							11238165.04	3814238.54	18.61	8.76
							11238166.23	3814238.71	18.61	8.76
							11238166.30	3814237.48	18.61	8.75
							11238163.76	3814237.28	18.61	8.75
							11238164.02	3814234.21	18.61	8.72
							11238166.47	3814234.47	18.61	8.72
							11238166.66	3814232.95	18.61	8.71
							11238163.36	3814232.75	18.61	8.71
							11238163.42	3814229.77	18.61	8.69
							11238164.61	3814229.77	18.61	8.69
							11238164.75	3814227.19	18.61	8.67
							11238167.00	3814227.39	18.61	8.67
							11238167.59	3814220.78	18.61	8.66
							11238163.95	3814220.38	18.61	8.62
							11238164.27	3814217.23	18.61	8.59
							11238156.28	3814216.81	18.61	8.60
							11238156.18	3814215.44	18.61	8.59
							11238151.56	3814214.92	18.61	8.62
							11238151.45	3814216.18	18.61	8.62
							11238145.15	3814215.65	18.61	8.65
							11238145.25	3814214.60	18.61	8.65
							11238136.01	3814213.87	18.61	8.71
							11238136.01	3814214.60	18.61	8.71
							11238132.86	3814214.50	18.61	8.73
							11238132.54	3814218.38	18.61	8.73
							11238126.87	3814218.07	18.61	8.77
							11238127.40	3814213.03	18.61	8.78
							11238120.78	3814212.50	18.61	8.82
							11238120.58	3814215.48	18.61	8.81
							11238117.10	3814215.13	18.61	8.84
							11238116.49	3814220.84	18.61	8.83
							11238117.73	3814220.90	18.61	8.82
							11238117.52	3814223.95	18.61	8.82
							11238118.78	3814224.05	18.61	8.81
							11238118.50	3814226.50	18.61	8.81
							11238116.47	3814226.37	18.61	8.82
							11238116.05	3814232.93	18.61	8.82
							11238119.15	3814233.30	18.61	8.80
							11238118.89	3814236.34	18.61	8.81
							11238126.87	3814236.97	18.61	8.80
							11238127.06	3814235.74	18.61	8.79
							11238130.34	3814236.03	18.61	8.79
							11238130.23	3814237.29	18.61	8.80
							11238135.07	3814237.81	18.61	8.79
							11238135.16	3814236.77	18.61	8.79
							11238137.87	3814236.95	18.61	8.78
							11238137.94	3814238.01	18.61	8.79
							11238142.84	3814238.34	18.61	8.79
							11238142.93	3814236.78	18.61	8.77
							11238145.70	3814237.04	18.61	8.77
							11238145.57	3814238.45	18.61	8.78
							11238151.09	3814238.63	18.61	8.78
							11238151.37	3814235.03	18.61	8.75
							11238154.39	3814235.19	18.61	8.75
							11238153.66	3814241.91	18.61	8.80
							11238151.03	3814241.70	18.61	8.80
							11238150.79	3814244.75	18.61	8.82

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238152.42	3814244.85	18.61	8.82
								11238152.29	3814247.48	18.61	8.84
								11238154.60	3814247.79	18.61	8.84
								11238153.93	3814254.00	18.61	8.77
								11238151.03	3814253.68	18.61	8.77
								11238151.24	3814250.00	18.61	8.81
								11238146.30	3814249.58	18.61	8.80
								11238146.24	3814250.82	18.61	8.79
								11238142.93	3814250.81	18.61	8.78
								11238143.05	3814248.84	18.61	8.80
								11238138.53	3814248.42	18.61	8.80
								11238138.53	3814249.37	18.61	8.79
								11238131.60	3814248.74	18.61	8.78
								11238131.49	3814247.79	18.61	8.79
								11238122.57	3814247.06	18.61	8.78
								11238122.57	3814247.79	18.61	8.78
								11238119.62	3814247.69	18.61	8.81
								11238119.83	3814246.43	18.61	8.80
								11238111.96	3814245.80	18.61	8.85
								11238111.75	3814248.53	18.61	8.86
								11238110.17	3814248.63	18.61	8.85
								11238109.75	3814253.57	18.61	8.86
								11238107.44	3814253.47	18.61	8.85
								11238107.23	3814254.94	18.61	8.85
								11238109.65	3814255.15	18.61	8.86
								11238109.44	3814257.67	18.61	8.87
								11238108.17	3814257.77	18.61	8.86
								11238108.17	3814260.61	18.61	8.86
								11238106.70	3814260.61	18.61	8.85
			x	0		4.60	r	11238097.36	3814231.78	13.44	8.84
								11238106.36	3814232.57	13.44	8.84
								11238107.15	3814224.83	13.44	8.84
								11238110.06	3814225.16	13.44	8.84
								11238110.59	3814216.69	13.44	8.84
								11238107.68	3814216.44	13.44	8.84
								11238108.21	3814210.54	13.44	8.84
								11238104.31	3814210.14	13.44	8.84
								11238104.24	3814211.66	13.44	8.84
								11238100.20	3814211.26	13.44	8.84
								11238099.94	3814213.25	13.44	8.84
								11238096.56	3814212.92	13.44	8.84
								11238097.03	3814209.74	13.44	8.84
								11238088.95	3814208.88	13.44	8.87
								11238088.23	3814214.70	13.44	8.86
								11238080.15	3814214.17	13.44	9.07
								11238079.56	3814222.05	13.44	8.98
								11238098.22	3814223.90	13.44	8.84
			x	0		6.70	r	11237905.46	3814205.38	18.34	11.64
								11237914.47	3814205.18	18.34	11.59
								11237914.43	3814204.36	18.34	11.58
								11237923.12	3814203.86	18.34	11.53
								11237923.13	3814204.51	18.34	11.54
								11237932.31	3814203.84	18.34	11.50
								11237932.04	3814199.06	18.34	11.50
								11237932.94	3814199.01	18.34	11.50
								11237932.73	3814195.02	18.34	11.50
								11237927.74	3814195.33	18.34	11.50
								11237927.74	3814193.13	18.34	11.50
								11237929.89	3814192.97	18.34	11.50
								11237929.06	3814180.72	18.34	11.50
								11237926.72	3814181.05	18.34	11.50
								11237926.64	3814176.71	18.34	11.50
								11237928.76	3814176.52	18.34	11.50

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237927.92	3814163.93	18.34	11.50
								11237925.76	3814164.09	18.34	11.50
								11237925.76	3814160.17	18.34	11.50
								11237927.84	3814159.92	18.34	11.50
								11237927.34	3814148.00	18.34	11.50
								11237925.09	3814148.17	18.34	11.50
								11237924.92	3814146.00	18.34	11.50
								11237929.92	3814145.67	18.34	11.50
								11237929.63	3814141.37	18.34	11.50
								11237928.38	3814141.37	18.34	11.50
								11237928.34	3814137.33	18.34	11.50
								11237921.63	3814137.66	18.34	11.51
								11237921.59	3814136.87	18.34	11.52
								11237919.59	3814137.00	18.34	11.52
								11237919.59	3814137.96	18.34	11.52
								11237910.66	3814138.46	18.34	11.55
								11237910.54	3814137.66	18.34	11.55
								11237908.40	3814137.96	18.34	11.56
								11237908.44	3814138.69	18.34	11.55
								11237901.91	3814139.04	18.34	11.58
								11237902.12	3814143.33	18.34	11.55
								11237901.04	3814143.33	18.34	11.56
								11237901.24	3814147.42	18.34	11.53
								11237906.23	3814147.16	18.34	11.52
								11237906.41	3814149.29	18.34	11.50
								11237904.08	3814149.46	18.34	11.51
								11237904.83	3814161.72	18.34	11.50
								11237907.25	3814161.55	18.34	11.50
								11237907.41	3814165.64	18.34	11.50
								11237905.16	3814165.89	18.34	11.50
								11237906.00	3814177.97	18.34	11.50
								11237907.83	3814177.81	18.34	11.50
								11237908.08	3814182.06	18.34	11.50
								11237906.08	3814182.48	18.34	11.50
								11237906.87	3814194.52	18.34	11.52
								11237909.12	3814194.26	18.34	11.50
								11237909.19	3814196.57	18.34	11.53
								11237904.19	3814196.84	18.34	11.55
								11237904.45	3814201.12	18.34	11.60
								11237905.35	3814201.07	18.34	11.60
			x	0		9.75	r	11238039.03	3814154.34	18.89	9.14
								11238038.54	3814160.90	18.89	9.27
								11238040.69	3814161.10	18.89	9.28
								11238040.44	3814163.68	18.89	9.32
								11238039.44	3814163.68	18.89	9.31
								11238039.28	3814166.27	18.89	9.35
								11238037.86	3814166.27	18.89	9.34
								11238037.61	3814172.19	18.89	9.43
								11238040.94	3814172.44	18.89	9.45
								11238040.69	3814175.94	18.89	9.50
								11238047.20	3814176.27	18.89	9.55
								11238047.61	3814171.52	18.89	9.48
								11238052.53	3814171.94	18.89	9.48
								11238052.12	3814176.94	18.89	9.58
								11238057.20	3814177.35	18.89	9.59
								11238057.28	3814176.52	18.89	9.57
								11238063.29	3814176.94	18.89	9.55
								11238063.20	3814178.02	18.89	9.57
								11238067.87	3814178.52	18.89	9.55
								11238068.29	3814176.06	18.89	9.50
								11238073.42	3814176.44	18.89	9.48
								11238073.29	3814177.35	18.89	9.50
								11238077.13	3814177.77	18.89	9.45

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238077.09	3814178.52	18.89	9.46
								11238080.05	3814178.77	18.89	9.42
								11238079.96	3814179.77	18.89	9.43
								11238089.63	3814180.36	18.89	9.31
								11238089.80	3814179.48	18.89	9.30
								11238092.47	3814179.69	18.89	9.27
								11238092.89	3814176.02	18.89	9.23
								11238098.22	3814176.52	18.89	9.16
								11238097.64	3814181.11	18.89	9.21
								11238104.47	3814181.69	18.89	9.13
								11238104.61	3814178.58	18.89	9.10
								11238108.51	3814178.91	18.89	9.06
								11238108.97	3814173.35	18.89	9.01
								11238107.44	3814173.24	18.89	9.01
								11238108.78	3814158.07	18.89	8.86
								11238042.87	3814151.71	18.89	9.08
								11238042.54	3814154.56	18.89	9.14
			x	0		9.75	r	11237904.07	3814078.49	17.44	7.69
								11237909.95	3814086.21	17.44	7.65
								11237912.05	3814084.16	17.44	7.65
								11237913.15	3814085.47	17.44	7.65
								11237912.42	3814086.21	17.44	7.67
								11237917.51	3814092.72	17.44	7.64
								11237924.66	3814086.79	17.44	7.57
								11237926.07	3814088.52	17.44	7.59
								11237928.99	3814085.74	17.44	7.58
								11237929.44	3814086.26	17.44	7.59
								11237937.05	3814079.91	17.44	7.58
								11237936.21	3814078.86	17.44	7.57
								11237938.31	3814077.12	17.44	7.57
								11237938.68	3814077.60	17.44	7.58
								11237942.20	3814074.81	17.44	7.57
								11237941.25	3814073.66	17.44	7.56
								11237946.14	3814069.72	17.44	7.56
								11237946.77	3814070.35	17.44	7.57
								11237948.66	3814068.56	17.44	7.56
								11237949.60	3814069.46	17.44	7.57
								11237957.06	3814063.26	17.44	7.58
								11237956.22	3814062.21	17.44	7.58
								11237958.47	3814060.48	17.44	7.58
								11237955.38	3814056.64	17.44	7.55
								11237956.54	3814055.59	17.44	7.55
								11237958.64	3814057.90	17.44	7.57
								11237965.99	3814052.23	17.44	7.57
								11237964.24	3814049.73	17.44	7.54
								11237965.57	3814048.56	17.44	7.53
								11237920.72	3813989.94	17.44	6.81
								11237912.53	3813997.09	17.44	6.88
								11237914.31	3813999.19	17.44	6.88
								11237913.05	3814000.03	17.44	6.90
								11237911.37	3813997.82	17.44	6.90
								11237903.81	3814004.23	17.44	7.02
								11237905.59	3814006.44	17.44	7.02
								11237904.33	3814007.17	17.44	7.04
								11237907.69	3814011.16	17.44	7.03
								11237909.27	3814009.80	17.44	7.01
								11237910.95	3814012.00	17.44	7.01
								11237910.00	3814012.74	17.44	7.03
								11237911.90	3814014.94	17.44	7.03
								11237910.85	3814015.89	17.44	7.04
								11237917.15	3814023.66	17.44	7.06
								11237918.30	3814022.82	17.44	7.04
								11237921.67	3814027.13	17.44	7.09

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237920.51	3814028.08	17.44	7.10
								11237926.39	3814036.27	17.44	7.22
								11237927.55	3814035.32	17.44	7.21
								11237930.70	3814039.32	17.44	7.27
								11237929.33	3814040.58	17.44	7.28
								11237932.51	3814044.55	17.44	7.34
								11237933.24	3814044.08	17.44	7.34
								11237935.69	3814047.39	17.44	7.39
								11237937.14	3814045.67	17.44	7.37
								11237938.00	3814046.60	17.44	7.39
								11237938.67	3814046.10	17.44	7.38
								11237941.09	3814049.27	17.44	7.43
								11237942.17	3814049.35	17.44	7.44
								11237941.92	3814050.18	17.44	7.44
								11237942.09	3814051.85	17.44	7.46
								11237939.17	3814053.60	17.44	7.46
								11237938.42	3814053.18	17.44	7.46
								11237935.42	3814055.77	17.44	7.45
								11237934.75	3814055.02	17.44	7.44
								11237934.08	3814055.52	17.44	7.44
								11237932.58	3814053.52	17.44	7.43
								11237929.00	3814056.35	17.44	7.42
								11237929.75	3814057.27	17.44	7.43
								11237927.91	3814058.69	17.44	7.43
								11237927.16	3814057.35	17.44	7.42
								11237919.33	3814063.94	17.44	7.42
								11237920.08	3814064.77	17.44	7.43
								11237916.03	3814068.10	17.44	7.43
								11237915.17	3814067.34	17.44	7.44
								11237914.16	3814068.44	17.44	7.47
								11237915.82	3814070.11	17.44	7.45
								11237914.10	3814071.65	17.44	7.50
								11237913.49	3814070.86	17.44	7.50
								11237909.55	3814074.43	17.44	7.61
								11237909.97	3814074.85	17.44	7.60
								11237907.93	3814076.62	17.44	7.66
								11237906.24	3814074.64	17.44	7.67
								11237905.33	3814075.52	17.44	7.69
								11237906.14	3814076.48	17.44	7.69
			x	0		4.60	r	11237881.78	3814008.79	11.88	7.28
								11237891.07	3814025.96	11.88	7.31
								11237893.17	3814024.65	11.88	7.28
								11237893.49	3814025.39	11.88	7.28
								11237895.54	3814024.13	11.88	7.25
								11237895.22	3814023.60	11.88	7.25
								11237897.43	3814022.39	11.88	7.22
								11237899.74	3814021.08	11.88	7.19
								11237895.70	3814013.52	11.88	7.17
								11237898.69	3814011.78	11.88	7.13
								11237895.49	3814005.48	11.88	7.11
								11237897.74	3814004.22	11.88	7.08
								11237895.07	3813999.55	11.88	7.15
								11237893.17	3814000.70	11.88	7.17
								11237892.65	3813999.81	11.88	7.18
								11237891.39	3814000.91	11.88	7.19
								11237890.50	3813999.28	11.88	7.23
								11237887.71	3814001.23	11.88	7.25
								11237888.34	3814002.59	11.88	7.23
								11237886.92	3814003.38	11.88	7.24
								11237887.34	3814004.11	11.88	7.23
								11237883.93	3814006.11	11.88	7.27
								11237884.56	3814007.11	11.88	7.25
			x	0		9.75	r	11237824.66	3813980.79	17.23	7.48

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11237875.27	3813944.25	17.23	7.41
							11237897.74	3813973.02	17.23	7.33
							11237883.25	3813983.52	17.23	7.31
							11237871.49	3813968.61	17.23	7.42
							11237835.16	3813995.91	17.23	7.33

Geometrie Höhenlinien

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237871.28	3814268.78	13.40
						11237882.03	3814269.78	11.90
						11237895.54	3814270.95	11.60
						11237910.79	3814272.20	11.00
						11237946.38	3814275.70	11.00
						11237960.87	3814277.35	10.70
						11238006.05	3814281.45	10.50
						11238074.42	3814287.97	10.10
						11238128.34	3814292.90	9.15
						11238169.52	3814296.90	8.54
						11238187.85	3814298.40	9.15
						11238186.80	3814204.20	7.93
						11237865.11	3814280.70	12.20
						11237919.09	3814284.91	11.00
						11238073.25	3814299.82	11.00
						11238250.89	3814315.71	10.10
						11237881.92	3814269.56	11.90
						11237880.84	3814250.05	13.10
						11237880.31	3814214.13	13.10
						11237879.47	3814200.69	13.40
						11237878.61	3814185.47	13.70
						11237876.44	3814158.13	12.80
						11237869.11	3814116.46	13.40
						11237862.61	3814092.28	14.90
						11237859.87	3814081.36	14.00
						11237854.83	3814065.92	13.70
						11237846.22	3814043.24	12.30
						11237832.15	3814014.88	11.90
						11237818.29	3813991.15	10.80
						11237902.99	3814212.44	11.60
						11237901.21	3814224.35	11.50
						11237900.28	3814243.40	11.50
						11237902.00	3814246.57	11.50
						11237950.17	3814249.75	11.00
						11237953.34	3814243.13	11.00
						11237958.77	3814244.06	11.00
						11237960.35	3814251.21	10.90
						11237989.86	3814253.46	10.90
						11238007.73	3814255.18	10.70
						11238009.71	3814251.60	10.70
						11238012.09	3814224.48	11.30
						11238004.75	3814221.37	11.30
						11237962.54	3814218.13	11.00
						11237942.76	3814216.34	11.00
						11237905.17	3814212.56	11.60
						11238034.49	3814231.70	10.40
						11238032.99	3814240.04	10.50
						11238032.90	3814255.29	10.40
						11238037.07	3814258.71	10.40
						11238071.50	3814261.46	9.76
						11238099.75	3814264.05	8.84
						11238103.51	3814259.21	8.84

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11238102.92	3814241.21	8.84
						11238097.59	3814236.29	8.84
						11238036.24	3814231.12	10.40
						11238112.56	3814239.62	8.84
						11238108.46	3814246.89	8.84
						11238105.41	3814257.35	8.84
						11238103.30	3814270.71	8.84
						11238114.15	3814274.15	8.93
						11238162.18	3814277.99	8.54
						11238169.19	3814272.83	8.54
						11238172.37	3814250.73	8.84
						11238172.50	3814218.98	8.84
						11238164.30	3814210.64	8.54
						11238121.56	3814208.39	8.84
						11238114.94	3814217.25	8.84
						11238112.16	3814239.35	8.84
						11238112.72	3814207.99	8.84
						11238091.71	3814201.80	8.84
						11238077.95	3814210.62	9.15
						11238074.07	3814220.91	8.99
						11238085.10	3814231.21	8.84
						11238099.06	3814234.46	8.84
						11238035.65	3814154.34	9.15
						11238032.74	3814175.25	9.45
						11238059.21	3814185.97	9.76
						11238107.77	3814188.61	9.15
						11238122.06	3814164.66	9.15
						11238120.07	3814155.53	9.15
						11237903.76	3814209.71	11.70
						11237902.44	3814191.06	11.50
						11237901.25	3814153.21	11.50
						11237899.92	3814136.14	11.60
						11237930.89	3814133.89	11.50
						11237935.25	3814206.67	11.50
						11237933.93	3814132.97	11.50
						11237963.18	3814143.95	11.00
						11237993.61	3814171.60	9.45
						11238023.78	3814173.72	9.76
						11237898.20	3814133.45	11.00
						11237897.36	3814121.11	8.54
						11237893.03	3814100.94	7.62
						11237880.03	3814067.93	7.62
						11237861.35	3814016.74	7.62
						11237844.60	3814008.66	7.32
						11237824.93	3813996.32	7.32
						11237916.25	3814099.08	7.93
						11237901.43	3814082.14	7.62
						11237900.90	3814072.35	7.74
						11237912.78	3814050.56	7.32
						11237892.08	3814029.08	7.32
						11237877.91	3814010.91	7.32
						11237871.24	3813998.24	7.26
						11237854.43	3813994.25	7.32
						11237831.96	3813999.08	7.30
						11237821.24	3813984.16	7.32
						11237825.75	3813978.00	7.56
						11237860.61	3813946.91	7.56
						11237881.20	3813937.25	7.32
						11237900.52	3813973.37	7.32
						11237925.85	3813991.70	6.71
						11237971.28	3814054.17	7.62
						11237957.78	3814072.04	7.62
						11237921.26	3814097.71	7.62

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237984.06	3814104.64	11.30
						11238018.30	3814121.86	10.40
						11238056.65	3814140.87	8.84
						11238109.00	3814156.21	8.84

Geometrie Bruchkanten

Name	M.	ID	Coordinates	
			x	y
			(m)	(m)

Bericht (Cumltv plus Prj First Floor Rcvrs_051514.cna)

Gruppentabelle Tag und Nacht

Name	Expression	R 7-1A		R 7-2A		R 7-3A		R 7-4A		R 7-5A		R 7-6A		R 7-7A		R 7-8A		R 7-9A	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night

Source																				
Name	M.	ID	R 7-1A		R 7-2A		R 7-3A		R 7-4A		R 7-5A		R 7-6A		R 7-7A		R 7-8A			
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night		
Los Carneros Road													4.6		18.8		33.2			
US 101 SB Onramp			44.3		44.6		44.6		47.0		49.3	-84.7	47.0	-87.2	42.6		20.1			
US 101 SB Offramp																	-8.0			
US 101 SB											38.7		36.4		22.1		11.6			
US 101 SB			57.2	-87.4	57.0	-87.6	56.7		55.9		51.7		49.0		44.5		28.3			
US 101 NB			53.0		53.3		53.0		52.4		49.2		46.6		42.3		26.3			
US 101 NB											36.3		37.7		21.1		10.6			
UPRR			49.5	49.5	49.9	49.9	50.3	50.3	50.8	50.8	51.1	51.1	31.8	31.8	32.7	32.7	31.0	31.0		
UPRR			65.2	65.2	65.0	65.0	64.8	64.8	64.2	64.2	61.0	61.0	57.5	57.5	52.3	52.3	43.0	43.0		

Schallquellen

Punktquellen

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night	
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)

Linienquellen

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen vertikal

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Schienen

Name	M.	ID	Lm,E		Train Class	Add.Level				Vmax
			Day	Night		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0						
UPRR			78.0	78.0						

Zugklassen

Name	M.	ID	Lm,E		Train Class										Add.Level				Vmax
			Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night	(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0																
UPRR			78.0	78.0																

Name	Lm,E		Train Class									
	Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)	
	(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night

Parkplätze

Name	M.	ID	Type	Lwa			Event Data						Penalty Type		Penalty Surface		A
				Day	Special	Night	Ref. Quantity	Number B	No. Spaces/RefQ	Events/h/RefQ			Kpa	Type	Kstro	Surface	
				(dBA)	(dBA)	(dBA)				Day	Special	Night	(dB)		(dB)		

Strassen

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	S
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Ds
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(d
Los Carneros Road			70.2	0.0	0.0			3333.0	0.0	0.0	5.0	0.0	0.0	72		RQ 20	
US 101 SB Onramp			66.2	0.0	0.0			1339.0	0.0	0.0	5.0	0.0	0.0	72		RQ 12	
US 101 SB Offramp			61.8	0.0	0.0			190.0	0.0	0.0	5.0	0.0	0.0	100		RQ 12	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	

Ampeln

Name	M.	ID	Active			Height	Coordinates		
			Day	Evening	Night	Begin	X	Y	Z
						(m)	(m)	(m)	(m)

Immissionspunkte

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 7-1A			66.2	65.3	0.0	0.0		x	Total	1.50	r	11238158.88	3814274.45	10.07
R 7-2A			66.0	65.1	0.0	0.0		x	Total	1.50	r	11238145.19	3814273.08	10.17
R 7-3A			65.8	64.9	0.0	0.0		x	Total	1.50	r	11238128.68	3814272.48	10.30
R 7-4A			65.3	64.4	0.0	0.0		x	Total	1.50	r	11238111.97	3814270.98	10.41
R 7-5A			62.3	61.4	0.0	0.0		x	Total	1.50	r	11238105.86	3814263.69	10.35
R 7-6A			58.8	57.6	0.0	0.0		x	Total	1.50	r	11238107.53	3814258.72	10.36
R 7-7A			53.7	52.4	0.0	0.0		x	Total	1.50	r	11238109.36	3814250.46	10.35
R 7-8A			43.9	43.3	0.0	0.0		x	Total	1.50	r	11238117.34	3814245.69	10.32
R 7-9A			43.9	43.2	0.0	0.0		x	Total	1.50	r	11238129.68	3814247.19	10.29
R 7-10A			48.2	47.6	0.0	0.0		x	Total	1.50	r	11238139.98	3814238.42	10.29
R 7-11A			48.2	47.5	0.0	0.0		x	Total	1.50	r	11238132.71	3814238.00	10.30
R 7-12A			48.2	47.3	0.0	0.0		x	Total	1.50	r	11238122.29	3814237.03	10.31
R 7-13A			53.0	51.5	0.0	0.0		x	Total	1.50	r	11238115.68	3814231.37	10.33
R 7-14A			52.4	50.8	0.0	0.0		x	Total	1.50	r	11238117.37	3814222.06	10.32
R 7-15A			45.3	44.8	0.0	0.0		x	Total	1.50	r	11238124.18	3814211.84	10.30
R 7-16A			58.4	56.4	0.0	0.0		x	Total	1.50	r	11238167.78	3814224.98	10.17
R 7-17A			53.7	52.8	0.0	0.0		x	Total	1.50	r	11238165.37	3814240.73	10.27
R 7-18A			62.1	59.8	0.0	0.0		x	Total	1.50	r	11238167.76	3814253.05	10.31
R 7-19A			63.3	61.8	0.0	0.0		x	Total	1.50	r	11238163.26	3814267.75	10.15
R 8-1A			64.4	63.4	0.0	0.0		x	Total	1.50	r	11238095.94	3814262.98	10.46
R 8-2A			64.6	63.6	0.0	0.0		x	Total	1.50	r	11238091.05	3814262.56	10.62

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 8-3A			64.5	63.4	0.0	0.0		x	Total	1.50	r	11238082.91	3814260.93	10.88
R 8-4A			64.9	63.9	0.0	0.0		x	Total	1.50	r	11238077.03	3814261.14	11.08
R 8-5A			64.9	63.8	0.0	0.0		x	Total	1.50	r	11238070.78	3814259.57	11.26
R 8-6A			64.6	63.3	0.0	0.0		x	Total	1.50	r	11238063.82	3814257.53	11.41
R 8-7A			65.2	64.1	0.0	0.0		x	Total	1.50	r	11238058.76	3814259.29	11.50
R 8-8A			65.3	64.2	0.0	0.0		x	Total	1.50	r	11238051.34	3814258.62	11.64
R 8-9A			65.5	64.4	0.0	0.0		x	Total	1.50	r	11238044.92	3814258.04	11.76
R 8-10A			65.6	64.5	0.0	0.0		x	Total	1.50	r	11238038.91	3814257.62	11.87
R 8-11A			63.8	62.7	0.0	0.0		x	Total	1.50	r	11238035.70	3814252.75	11.93
R 8-12A			56.4	54.7	0.0	0.0		x	Total	1.50	r	11238036.20	3814245.83	11.93
R 8-13A			61.5	60.1	0.0	0.0		x	Total	1.50	r	11238034.70	3814242.25	11.97
R 8-14A			61.7	60.0	0.0	0.0		x	Total	1.50	r	11238034.12	3814238.16	11.97
R 8-15A			46.3	45.5	0.0	0.0		x	Total	1.50	r	11238037.20	3814235.58	11.90
R 8-16A			44.2	42.7	0.0	0.0		x	Total	1.50	r	11238041.79	3814233.08	11.77
R 8-17A			44.2	42.8	0.0	0.0		x	Total	1.50	r	11238050.79	3814234.66	11.55
R 8-18A			43.9	42.3	0.0	0.0		x	Total	1.50	r	11238073.05	3814235.66	10.98
R 8-19A			44.1	42.3	0.0	0.0		x	Total	1.50	r	11238092.32	3814237.58	10.49
R 8-20A			45.2	42.3	0.0	0.0		x	Total	1.50	r	11238097.48	3814238.25	10.35
R 8-21A			45.1	44.3	0.0	0.0		x	Total	1.50	r	11238099.57	3814242.92	10.34
R 8-22A			45.3	44.5	0.0	0.0		x	Total	1.50	r	11238099.32	3814249.25	10.34
R 8-23A			44.6	44.1	0.0	0.0		x	Total	1.50	r	11238100.15	3814252.50	10.34
R 8-24A			60.2	59.0	0.0	0.0		x	Total	1.50	r	11238100.82	3814257.51	10.34
R 5-1A			65.5	64.3	0.0	0.0		x	Total	1.50	r	11238006.18	3814253.15	12.23
R 5-2A			66.0	64.9	0.0	0.0		x	Total	1.50	r	11238001.34	3814253.81	12.28
R 5-3A			65.6	64.5	0.0	0.0		x	Total	1.50	r	11237996.01	3814250.31	12.38
R 5-4A			66.0	64.8	0.0	0.0		x	Total	1.50	r	11237988.02	3814249.60	12.42
R 5-5A			64.4	63.0	0.0	0.0		x	Total	1.50	r	11237984.83	3814247.14	12.42
R 5-6A			65.9	64.7	0.0	0.0		x	Total	1.50	r	11237979.50	3814249.06	12.43
R 5-7A			65.3	64.1	0.0	0.0		x	Total	1.50	r	11237972.41	3814248.34	12.45
R 5-8A			66.0	65.0	0.0	0.0		x	Total	1.50	r	11237966.91	3814250.73	12.41
R 5-9A			65.8	64.8	0.0	0.0		x	Total	1.50	r	11237962.02	3814249.08	12.43
R 5-10A			63.1	61.7	0.0	0.0		x	Total	1.50	r	11237960.24	3814244.31	12.50
R 5-11A			59.9	58.5	0.0	0.0		x	Total	1.50	r	11237961.24	3814232.50	12.50
R 5-12A			58.5	56.8	0.0	0.0		x	Total	1.50	r	11237962.10	3814224.53	12.50
R 5-13A			47.6	45.2	0.0	0.0		x	Total	1.50	r	11237965.48	3814220.85	12.50
R 5-14A			48.2	44.8	0.0	0.0		x	Total	1.50	r	11237969.18	3814220.11	12.53
R 5-15A			46.3	45.3	0.0	0.0		x	Total	1.50	r	11237984.40	3814224.30	12.62
R 5-16A			47.3	44.9	0.0	0.0		x	Total	1.50	r	11238003.88	3814223.39	12.77
R 5-17A			46.4	45.4	0.0	0.0		x	Total	1.50	r	11238008.63	3814224.56	12.77
R 5-18A			62.3	59.2	0.0	0.0		x	Total	1.50	r	11238010.32	3814229.42	12.68
R 5-19A			62.8	60.1	0.0	0.0		x	Total	1.50	r	11238009.29	3814238.06	12.49
R 5-20A			63.6	61.6	0.0	0.0		x	Total	1.50	r	11238008.49	3814249.18	12.26
R4-1A			62.6	61.1	0.0	0.0		x	Total	1.50	r	11237949.84	3814242.00	12.50
R4-2A			65.7	64.7	0.0	0.0		x	Total	1.50	r	11237947.43	3814247.77	12.52
R4-3A			66.0	65.0	0.0	0.0		x	Total	1.50	r	11237941.96	3814248.40	12.58
R4-4A			65.7	64.5	0.0	0.0		x	Total	1.50	r	11237937.34	3814245.25	12.62
R4-5A			66.0	64.7	0.0	0.0		x	Total	1.50	r	11237929.36	3814244.20	12.71
R4-6A			64.6	63.2	0.0	0.0		x	Total	1.50	r	11237924.74	3814241.89	12.75
R4-7A			66.0	64.7	0.0	0.0		x	Total	1.50	r	11237921.16	3814243.89	12.79
R4-8A			65.3	63.9	0.0	0.0		x	Total	1.50	r	11237913.18	3814243.26	12.87
R4-9A			66.0	64.7	0.0	0.0		x	Total	1.50	r	11237907.93	3814245.36	12.93
R4-10A			65.8	64.4	0.0	0.0		x	Total	1.50	r	11237903.22	3814243.82	12.98
R4-11A			63.7	61.4	0.0	0.0		x	Total	1.50	r	11237901.39	3814239.15	13.00
R4-12A			63.4	61.3	0.0	0.0		x	Total	1.50	r	11237901.89	3814232.81	13.00
R4-13A			63.3	61.2	0.0	0.0		x	Total	1.50	r	11237902.64	3814226.72	12.98
R4-14A			63.3	61.3	0.0	0.0		x	Total	1.50	r	11237903.14	3814220.22	13.03
R4-15A			55.0	46.3	0.0	0.0		x	Total	1.50	r	11237905.89	3814215.30	13.05
R4-16A			54.7	46.1	0.0	0.0		x	Total	1.50	r	11237910.23	3814214.63	13.00
R4-17A			49.6	45.6	0.0	0.0		x	Total	1.50	r	11237915.31	3814218.22	12.88
R4-18A			50.3	45.3	0.0	0.0		x	Total	1.50	r	11237923.65	3814218.89	12.75
R4-19A			49.7	45.2	0.0	0.0		x	Total	1.50	r	11237931.41	3814219.39	12.64
R4-20A			49.2	44.8	0.0	0.0		x	Total	1.50	r	11237938.41	3814220.14	12.55
R4-21A			49.1	44.6	0.0	0.0		x	Total	1.50	r	11237944.50	3814217.80	12.50

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R4-22A			46.4	44.8	0.0	0.0		x	Total	1.50	r	11237949.25	3814219.14	12.50
R4-23A			59.1	57.2	0.0	0.0		x	Total	1.50	r	11237951.00	3814224.81	12.50
R4-24A			61.2	59.2	0.0	0.0		x	Total	1.50	r	11237950.00	3814235.23	12.50
R3-1A			57.9	56.7	0.0	0.0		x	Total	1.50	r	11237930.46	3814204.31	13.00
R3-2A			58.8	57.7	0.0	0.0		x	Total	1.50	r	11237924.19	3814204.84	13.04
R3-3A			61.6	60.5	0.0	0.0		x	Total	1.50	r	11237913.90	3814205.68	13.10
R3-4A			63.1	61.4	0.0	0.0		x	Total	1.50	r	11237906.25	3814205.88	13.14
R3-5A			63.1	61.4	0.0	0.0		x	Total	1.50	r	11237903.92	3814198.64	13.08
R3-6A			62.6	60.7	0.0	0.0		x	Total	1.50	r	11237906.41	3814190.27	13.00
R3-7A			62.6	60.9	0.0	0.0		x	Total	1.50	r	11237905.92	3814184.34	13.00
R3-8A			62.5	60.9	0.0	0.0		x	Total	1.50	r	11237905.28	3814175.17	13.00
R3-9A			62.5	60.8	0.0	0.0		x	Total	1.50	r	11237904.78	3814168.33	13.00
R3-10A			62.6	60.7	0.0	0.0		x	Total	1.50	r	11237904.36	3814159.15	13.00
R3-11A			62.6	60.8	0.0	0.0		x	Total	1.50	r	11237903.89	3814152.34	13.00
R3-12A			62.8	61.3	0.0	0.0		x	Total	1.50	r	11237900.93	3814146.17	13.04
R3-13A			62.6	61.1	0.0	0.0		x	Total	1.50	r	11237901.77	3814140.17	13.07
R3-14A			53.9	43.8	0.0	0.0		x	Total	1.50	r	11237904.96	3814138.70	13.07
R3-15A			52.3	43.9	0.0	0.0		x	Total	1.50	r	11237916.26	3814137.67	13.03
R3-16A			51.2	43.3	0.0	0.0		x	Total	1.50	r	11237926.46	3814137.10	13.00
R3-17A			51.7	50.5	0.0	0.0		x	Total	1.50	r	11237930.11	3814142.83	13.00
R3-18A			51.1	50.4	0.0	0.0		x	Total	1.50	r	11237928.78	3814169.17	13.00
R3-19A			50.5	49.9	0.0	0.0		x	Total	1.50	r	11237929.78	3814185.83	13.00
R3-20A			51.0	50.2	0.0	0.0		x	Total	1.50	r	11237932.95	3814200.50	13.00
R2-1A			58.7	57.5	0.0	0.0		x	Total	1.50	r	11237916.87	3814093.05	9.14
R2-2A			58.2	57.3	0.0	0.0		x	Total	1.50	r	11237911.83	3814086.96	9.16
R2-3A			58.1	57.0	0.0	0.0		x	Total	1.50	r	11237907.84	3814085.07	9.15
R2-4A			57.8	56.7	0.0	0.0		x	Total	1.50	r	11237903.85	3814080.45	9.17
R2-5A			55.3	53.7	0.0	0.0		x	Total	1.50	r	11237905.11	3814076.46	9.20
R2-6A			48.5	42.9	0.0	0.0		x	Total	1.50	r	11237911.41	3814071.62	9.05
R2-7A			49.7	46.0	0.0	0.0		x	Total	1.50	r	11237917.71	3814065.53	8.92
R2-8A			51.8	49.3	0.0	0.0		x	Total	1.50	r	11237924.85	3814058.18	8.91
R2-9A			51.0	48.2	0.0	0.0		x	Total	1.50	r	11237931.15	3814054.19	8.92
R2-10A			47.4	40.5	0.0	0.0		x	Total	1.50	r	11237936.41	3814052.93	8.94
R2-11A			53.1	51.4	0.0	0.0		x	Total	1.50	r	11237933.89	3814046.84	8.87
R2-12A			55.2	53.9	0.0	0.0		x	Total	1.50	r	11237929.05	3814041.59	8.79
R2-13A			57.1	56.0	0.0	0.0		x	Total	1.50	r	11237922.96	3814033.40	8.67
R2-14A			57.3	56.4	0.0	0.0		x	Total	1.50	r	11237915.40	3814023.32	8.57
R2-15A			56.9	56.2	0.0	0.0		x	Total	1.50	r	11237910.36	3814016.60	8.56
R2-16A			55.0	54.3	0.0	0.0		x	Total	1.50	r	11237904.69	3814008.41	8.54
R2-17A			47.0	46.2	0.0	0.0		x	Total	1.50	r	11237905.53	3814001.90	8.48
R2-18A			46.7	45.2	0.0	0.0		x	Total	1.50	r	11237908.89	3813998.96	8.43
R2-19A			47.6	45.3	0.0	0.0		x	Total	1.50	r	11237914.35	3813994.34	8.38
R2-20A			47.2	44.4	0.0	0.0		x	Total	1.50	r	11237917.92	3813991.82	8.34
R2-21A			44.2	44.1	0.0	0.0		x	Total	1.50	r	11237925.48	3813995.60	8.25
R2-22A			44.4	44.2	0.0	0.0		x	Total	1.50	r	11237935.78	3814009.04	8.45
R2-23A			44.2	44.1	0.0	0.0		x	Total	1.50	r	11237947.96	3814024.79	8.68
R2-24A			44.5	44.3	0.0	0.0		x	Total	1.50	r	11237960.56	3814040.96	8.92
R2-25A			53.2	52.5	0.0	0.0		x	Total	1.50	r	11237962.45	3814056.29	9.08
R2-26A			57.1	56.3	0.0	0.0		x	Total	1.50	r	11237951.11	3814068.68	9.07
R2-27A			57.0	56.2	0.0	0.0		x	Total	1.50	r	11237956.15	3814064.69	9.08
R2-28A			56.6	56.0	0.0	0.0		x	Total	1.50	r	11237941.24	3814076.04	9.08
R2-29A			57.8	57.0	0.0	0.0		x	Total	1.50	r	11237935.57	3814081.92	9.09
R2-30A			58.6	57.7	0.0	0.0		x	Total	1.50	r	11237927.16	3814088.22	9.09
Pool Rec 1			56.7	55.3	0.0	0.0		x	Total	1.50	r	11237890.45	3814025.86	8.81
Pool Rec 2			57.3	56.2	0.0	0.0		x	Total	1.50	r	11237882.51	3814010.85	8.77
Pool Rec 3			55.0	54.2	0.0	0.0		x	Total	1.50	r	11237901.70	3814017.46	8.64
Pool Rec 4			57.0	55.6	0.0	0.0		x	Total	1.50	r	11237900.64	3814035.98	8.80
Pool Rec 5			57.3	56.2	0.0	0.0		x	Total	1.50	r	11237904.48	3814052.79	8.88
Pool Rec 6			53.5	51.0	0.0	0.0		x	Total	1.50	r	11237887.02	3814002.60	8.75
R6-1A			54.2	53.6	0.0	0.0		x	Total	1.50	r	11238102.76	3814182.07	10.66
R6-2A			54.6	53.9	0.0	0.0		x	Total	1.50	r	11238087.19	3814180.63	10.85
R6-3A			56.3	55.3	0.0	0.0		x	Total	1.50	r	11238054.90	3814177.76	11.10
R6-4A			56.5	55.3	0.0	0.0		x	Total	1.50	r	11238037.24	3814169.05	10.88

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R6-5A			56.1	55.0	0.0	0.0		x	Total	1.50	r	11238038.29	3814157.89	10.72
R6-6A			43.1	39.8	0.0	0.0		x	Total	1.50	r	11238050.67	3814151.80	10.57
Pool Rec 7			53.1	51.8	0.0	0.0		x	Total	1.50	r	11238056.23	3814218.08	11.20
Pool Rec 8			50.2	49.3	0.0	0.0		x	Total	1.50	r	11238090.15	3814224.92	10.34
Pool Rec 9			48.1	47.3	0.0	0.0		x	Total	1.50	r	11238095.64	3814229.01	10.34
Pool Rec 10			55.0	53.4	0.0	0.0		x	Total	1.50	r	11238104.64	3814233.36	10.34
Pool Rec 11			49.4	48.1	0.0	0.0		x	Total	1.50	r	11238098.44	3814232.67	10.34
Pool Rec 12			50.5	49.9	0.0	0.0		x	Total	1.50	r	11238079.26	3814220.55	10.50
Pool Rec 13			51.0	50.3	0.0	0.0		x	Total	1.50	r	11238079.65	3814215.96	10.57
Pool Rec 14			46.6	45.4	0.0	0.0		x	Total	1.50	r	11238085.08	3814213.94	10.44
Pool Rec 15			45.6	44.5	0.0	0.0		x	Total	1.50	r	11238091.30	3814208.91	10.34
Pool Rec 16			46.7	46.2	0.0	0.0		x	Total	1.50	r	11238105.19	3814209.84	10.34
Pool Rec 17			46.2	45.9	0.0	0.0		x	Total	1.50	r	11238108.37	3814214.20	10.34
Pool Rec 18			50.8	49.5	0.0	0.0		x	Total	1.50	r	11238110.80	3814220.79	10.34
Pool Rec 19			53.1	51.6	0.0	0.0		x	Total	1.50	r	11238106.91	3814228.75	10.34
Pool Rec 20			53.7	52.7	0.0	0.0		x	Total	1.50	r	11237986.96	3814210.37	12.32
Pool Rec 21			57.9	56.2	0.0	0.0		x	Total	1.50	r	11237957.55	3814208.80	12.47
Pool Rec 22			56.4	55.1	0.0	0.0		x	Total	1.50	r	11237953.26	3814188.06	12.45
Pool Rec 23			56.3	55.4	0.0	0.0		x	Total	1.50	r	11237995.10	3814185.06	11.44
Pool Rec 24			56.9	55.7	0.0	0.0		x	Total	1.50	r	11238006.27	3814175.23	11.18
Pool Rec 25			55.8	54.7	0.0	0.0		x	Total	1.50	r	11237988.46	3814166.84	11.21
Pool Rec 26			56.9	55.6	0.0	0.0		x	Total	1.50	r	11237973.91	3814133.63	12.49
Pool Rec 27			57.2	55.9	0.0	0.0		x	Total	1.50	r	11237992.23	3814117.48	12.44
R1-1A			54.6	51.9	0.0	0.0		x	Total	1.50	r	11237833.27	3813996.54	8.83
R1-2A			56.8	52.3	0.0	0.0		x	Total	1.50	r	11237824.45	3813983.73	8.91
R1-3A			58.1	40.2	0.0	0.0		x	Total	1.50	r	11237833.27	3813973.23	9.05
R1-4A			54.3	39.6	0.0	0.0		x	Total	1.50	r	11237867.71	3813948.03	9.00
R1-5A			43.1	42.8	0.0	0.0		x	Total	1.50	r	11237883.04	3813953.70	8.88
R1-6A			57.8	57.2	0.0	0.0		x	Total	1.50	r	11237889.97	3813979.95	8.81
R1-7A			58.5	57.6	0.0	0.0		x	Total	1.50	r	11237880.10	3813982.05	8.82
R1-8A			58.8	58.1	0.0	0.0		x	Total	1.50	r	11237872.75	3813973.02	8.89
R1-9A			58.4	57.7	0.0	0.0		x	Total	1.50	r	11237860.99	3813977.22	8.90
R1-10A			56.2	55.1	0.0	0.0		x	Total	1.50	r	11237843.77	3813990.45	8.88
Pool Rec 28			58.4	56.8	0.0	0.0		x	Total	1.50	r	11238038.23	3814220.11	11.73
Pool Rec 29			57.1	55.6	0.0	0.0		x	Total	1.50	r	11238004.69	3814209.22	12.37
ST_LT1			65.7	65.0	0.0	0.0		x	Total	1.50	r	11238077.99	3814278.44	11.32

Gebietsausweisungen

Name	M.	ID	Type	Persons
				(1/km²)

Hindernisse

Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			
			left	right		horz.	vert.	Begin		End	
					(m)	(m)	(m)	(m)		(m)	

Häuser

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		3.65	r
			x	0		3.65	r
			x	0		6.70	r
			x	0		6.70	r
			x	0		9.75	r

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		9.75	r
			x	0		4.60	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		9.75	r

Bewuchs

Name	M.	ID	Height
			(m)

Bebauung

Name	M.	ID	Type	Attenuation	B	m	Height
				dB/100m	%	1/m	(m)

Geometriedaten

Geometrie Linienquellen

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Flächenquellen

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Parkplätze

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(m)	(m)	(m)	(m)	(m)	(m)

Geometrie Straßen

Name	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(m)	(%)
	(m)	(m)	(m)	(m)	(m)	(m)		
Los Carneros Road			11237697.29	3813908.86	7.62	7.60		
			11237759.07	3813961.83	10.67	10.70		
			11237782.99	3813989.66	10.67	11.00		
			11237808.40	3814029.18	12.50	12.50		
			11237829.81	3814079.44	12.80	14.00		
			11237845.52	3814131.11	14.33	16.00		
			11237849.30	3814230.44	14.94	18.50		
			11237851.61	3814289.45	16.76	21.30		
			11237854.07	3814329.87	18.29	21.50		
			11237857.43	3814385.23	18.29	18.29		
			11237861.66	3814452.97	16.46	16.46		
US 101 SB Onramp			11237862.91	3814329.11	14.33	21.50		
			11237917.30	3814334.68	14.63	19.00		
			11237998.36	3814343.08	14.63	15.80		
			11238188.34	3814363.72	10.36	12.20		
			11238396.35	3814383.05	9.75	10.40		
US 101 SB Offramp			11237577.38	3814297.86	12.19	12.19		
			11237682.81	3814309.20	14.33	14.33		
			11237760.93	3814317.60	14.33	18.00		
			11237844.93	3814327.68	14.00	21.50		

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		
US 101 SB					11237580.17	3814319.88	12.80	12.80		
					11237676.48	3814338.40	12.50	12.50		
					11237752.15	3814353.33	12.19	12.19		
					11237789.19	3814359.46	12.19	12.19		
					11237847.26	3814365.39	12.50	12.50		
US 101 SB					11237865.59	3814369.12	12.50	12.50		
					11237906.40	3814372.39	11.28	11.28		
					11237997.12	3814376.59	10.97	10.97		
					11238183.92	3814379.77	10.97	10.97		
					11238395.93	3814392.44	10.36	10.36		
US 101 NB					11238394.07	3814413.64	9.14	9.14		
					11238181.55	3814403.56	9.75	9.75		
					11237995.91	3814396.84	11.28	11.28		
					11237901.83	3814389.28	10.67	10.67		
					11237866.49	3814386.68	12.50	12.50		
US 101 NB					11237847.87	3814383.91	12.50	12.50		
					11237786.75	3814375.84	12.19	12.19		
					11237748.95	3814369.96	12.19	12.19		
					11237674.19	3814356.52	13.11	13.11		
					11237577.59	3814337.20	12.50	12.50		

Geometrie Schienen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)
UPRR	12.50	a	12.50	a	11237570.03	3814262.43	12.50	1.25
					11237838.85	3814285.11	12.50	11.18
UPRR	12.50	a	8.53	a	11237861.86	3814287.47	12.50	11.58
					11238395.28	3814332.85	8.53	0.89

Geometrie Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
			left	right		horz.	vert.	Begin	End	x	y	z	Ground
					(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
										11237881.18	3814251.51	15.51	13.10
										11237882.02	3814269.67	14.31	11.90
										11237895.41	3814270.84	14.01	11.60
										11237911.06	3814272.16	13.41	11.00
										11237945.61	3814275.47	13.41	11.00
										11237961.46	3814277.18	13.11	10.70
										11238006.41	3814281.33	12.91	10.50
										11238074.37	3814287.71	12.51	10.10
										11238128.78	3814292.54	11.56	9.15
										11238169.64	3814296.43	10.95	8.54
										11238187.40	3814297.69	11.56	9.15
										11237881.14	3814251.53	14.93	13.10
										11237880.87	3814250.01	14.93	13.10
										11237880.31	3814214.13	14.93	13.10
										11237879.47	3814200.69	15.23	13.40
										11237878.61	3814185.47	15.53	13.70
										11237876.44	3814158.13	14.63	12.80
										11237870.79	3814123.60	15.23	13.40
										11237862.61	3814092.28	16.73	14.90
										11237859.87	3814081.36	15.83	14.00
										11237854.83	3814065.92	15.53	13.70
										11237846.22	3814043.24	14.13	12.30
										11237832.15	3814014.88	13.73	11.90
										11237818.29	3813991.15	12.63	10.80
										11237814.79	3813985.44	12.63	10.80
										11237810.38	3813979.14	12.63	10.80

Geometrie Häuser

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		3.65	r	11238188.92	3814297.40	12.80	9.15
								11238194.21	3814297.14	12.80	9.21
								11238193.42	3814235.75	12.80	8.41
								11238220.94	3814234.69	12.80	8.50
								11238220.67	3814227.01	12.80	8.34
								11238187.86	3814229.66	12.80	8.27
								11238189.18	3814297.40	12.80	9.15
			x	0		3.65	r	11238198.18	3814176.74	11.11	7.46
								11238200.30	3814224.10	11.11	8.31
								11238237.34	3814223.31	11.11	8.24
								11238236.55	3814196.05	11.11	7.69
								11238223.32	3814196.32	11.11	7.71
								11238222.79	3814175.68	11.11	7.29
			x	0		6.70	r	11237903.99	3814215.91	18.27	11.57
								11237901.32	3814243.25	18.27	11.50
								11237905.31	3814243.57	18.27	11.46
								11237905.26	3814244.72	18.27	11.46
								11237909.41	3814244.98	18.27	11.42
								11237909.83	3814239.79	18.27	11.40
								11237911.82	3814239.94	18.27	11.38
								11237911.77	3814242.25	18.27	11.39
								11237923.27	3814243.15	18.27	11.27
								11237923.43	3814240.99	18.27	11.26
								11237927.52	3814241.41	18.27	11.22
								11237927.31	3814243.51	18.27	11.23
								11237939.07	3814244.68	18.27	11.11
								11237939.22	3814242.53	18.27	11.10
								11237941.17	3814242.68	18.27	11.08
								11237940.69	3814247.83	18.27	11.10
								11237944.63	3814248.15	18.27	11.05
								11237944.74	3814246.83	18.27	11.05
								11237948.73	3814247.15	18.27	11.01
								11237951.25	3814219.58	18.27	11.00
								11237947.26	3814219.27	18.27	11.00
								11237947.34	3814218.14	18.27	11.00
								11237943.38	3814217.89	18.27	11.00
								11237942.88	3814222.85	18.27	11.01
								11237941.01	3814222.81	18.27	11.03
								11237941.13	3814220.39	18.27	11.03
								11237913.61	3814218.28	18.27	11.40
								11237913.48	3814220.39	18.27	11.37
								11237911.36	3814220.19	18.27	11.41
								11237911.89	3814215.23	18.27	11.47
								11237907.92	3814214.84	18.27	11.53
								11237907.79	3814215.89	18.27	11.52
								11237903.82	3814215.50	18.27	11.57
			x	0		6.70	r	11237960.36	3814248.60	17.64	10.94
								11237964.18	3814248.92	17.64	10.94
								11237964.17	3814249.98	17.64	10.92
								11237968.27	3814250.40	17.64	10.92
								11237968.69	3814245.25	17.64	10.97
								11237970.58	3814245.46	17.64	10.96
								11237970.37	3814247.66	17.64	10.96
								11237982.13	3814248.71	17.64	10.93
								11237982.45	3814246.30	17.64	10.93
								11237986.44	3814246.72	17.64	10.93
								11237986.23	3814249.03	17.64	10.91
								11237997.99	3814249.98	17.64	10.87
								11237998.10	3814247.77	17.64	10.91
								11237999.99	3814247.98	17.64	10.88
								11237999.57	3814253.13	17.64	10.80
								11238004.30	3814253.65	17.64	10.75

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238004.33	3814252.58	17.64	10.75
								11238007.69	3814252.90	17.64	10.71
								11238010.07	3814225.08	17.64	11.27
								11238006.19	3814224.87	17.64	11.24
								11238006.29	3814223.72	17.64	11.26
								11238002.14	3814223.44	17.64	11.26
								11238001.77	3814228.23	17.64	11.21
								11237999.88	3814228.13	17.64	11.20
								11238000.02	3814226.06	17.64	11.22
								11237972.62	3814223.61	17.64	11.03
								11237972.36	3814225.92	17.64	11.01
								11237970.47	3814225.82	17.64	10.99
								11237971.00	3814220.46	17.64	11.05
								11237967.11	3814219.93	17.64	11.02
								11237966.80	3814221.40	17.64	11.00
								11237962.80	3814220.88	17.64	11.00
			x	0		9.75	r	11238034.68	3814235.95	20.20	10.45
								11238034.15	3814241.31	20.20	10.48
								11238035.41	3814241.31	20.20	10.45
								11238034.89	3814244.67	20.20	10.46
								11238036.99	3814244.88	20.20	10.42
								11238036.78	3814247.40	20.20	10.42
								11238034.26	3814247.29	20.20	10.46
								11238034.26	3814248.66	20.20	10.45
								11238036.57	3814248.97	20.20	10.42
								11238036.04	3814253.91	20.20	10.43
								11238037.51	3814254.12	20.20	10.40
								11238037.30	3814256.75	20.20	10.40
								11238046.44	3814257.59	20.20	10.23
								11238046.65	3814255.28	20.20	10.23
								11238048.96	3814255.49	20.20	10.18
								11238048.86	3814257.80	20.20	10.18
								11238060.52	3814258.85	20.20	9.97
								11238060.83	3814256.64	20.20	9.96
								11238065.56	3814257.06	20.20	9.87
								11238065.45	3814257.80	20.20	9.88
								11238069.44	3814258.11	20.20	9.78
								11238069.23	3814258.85	20.20	9.79
								11238072.65	3814259.11	20.20	9.71
								11238072.49	3814260.21	20.20	9.72
								11238081.66	3814261.05	20.20	9.43
								11238081.66	3814260.05	20.20	9.42
								11238084.75	3814260.46	20.20	9.32
								11238085.16	3814256.30	20.20	9.30
								11238090.42	3814257.05	20.20	9.13
								11238089.92	3814261.88	20.20	9.16
								11238096.58	3814262.38	20.20	8.94
								11238096.75	3814259.05	20.20	8.93
								11238100.34	3814259.38	20.20	8.84
								11238101.09	3814253.71	20.20	8.84
								11238099.67	3814253.54	20.20	8.84
								11238099.92	3814250.54	20.20	8.84
								11238098.84	3814250.54	20.20	8.84
								11238099.00	3814247.71	20.20	8.84
								11238101.42	3814247.96	20.20	8.84
								11238101.25	3814246.21	20.20	8.84
								11238098.84	3814246.04	20.20	8.84
								11238099.25	3814241.12	20.20	8.84
								11238098.42	3814241.12	20.20	8.84
								11238098.50	3814238.70	20.20	8.84
								11238090.33	3814237.95	20.20	9.05
								11238090.33	3814238.70	20.20	9.05
								11238087.16	3814238.54	20.20	9.13

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238087.33	3814237.37	20.20	9.12
								11238078.16	3814236.45	20.20	9.35
								11238077.99	3814237.37	20.20	9.36
								11238074.66	3814237.12	20.20	9.45
								11238074.74	3814236.04	20.20	9.44
								11238069.91	3814235.79	20.20	9.56
								11238069.82	3814236.79	20.20	9.57
								11238063.74	3814236.12	20.20	9.73
								11238063.74	3814235.16	20.20	9.72
								11238054.52	3814234.22	20.20	9.95
								11238054.48	3814235.37	20.20	9.96
								11238045.56	3814234.62	20.20	10.19
								11238045.56	3814233.62	20.20	10.18
								11238038.48	3814233.12	20.20	10.36
								11238038.14	3814236.12	20.20	10.38
			x	0		9.75	r	11238106.23	3814266.67	18.61	8.86
								11238109.59	3814266.88	18.61	8.88
								11238109.38	3814269.82	18.61	8.89
								11238116.31	3814270.66	18.61	8.90
								11238117.26	3814265.51	18.61	8.88
								11238122.10	3814265.85	18.61	8.84
								11238121.84	3814270.15	18.61	8.85
								11238124.75	3814270.28	18.61	8.83
								11238124.82	3814271.34	18.61	8.83
								11238134.15	3814272.07	18.61	8.76
								11238134.21	3814270.94	18.61	8.75
								11238137.45	3814271.34	18.61	8.73
								11238137.19	3814272.40	18.61	8.73
								11238141.94	3814272.82	18.61	8.69
								11238141.94	3814271.82	18.61	8.69
								11238148.11	3814272.57	18.61	8.64
								11238148.28	3814273.48	18.61	8.64
								11238152.86	3814273.98	18.61	8.61
								11238152.95	3814273.07	18.61	8.60
								11238160.89	3814273.86	18.61	8.58
								11238161.15	3814270.95	18.61	8.61
								11238162.54	3814271.08	18.61	8.61
								11238162.81	3814266.25	18.61	8.66
								11238165.25	3814266.45	18.61	8.66
								11238165.32	3814264.80	18.61	8.68
								11238162.87	3814264.66	18.61	8.68
								11238163.14	3814262.15	18.61	8.70
								11238166.25	3814262.55	18.61	8.71
								11238166.31	3814260.89	18.61	8.72
								11238164.13	3814260.69	18.61	8.72
								11238164.33	3814258.31	18.61	8.75
								11238166.64	3814258.51	18.61	8.75
								11238167.64	3814247.33	18.61	8.82
								11238167.64	3814246.00	18.61	8.81
								11238163.72	3814245.67	18.61	8.81
								11238163.89	3814241.75	18.61	8.78
								11238164.78	3814241.78	18.61	8.78
								11238165.04	3814238.54	18.61	8.76
								11238166.23	3814238.71	18.61	8.76
								11238166.30	3814237.48	18.61	8.75
								11238163.76	3814237.28	18.61	8.75
								11238164.02	3814234.21	18.61	8.72
								11238166.47	3814234.47	18.61	8.72
								11238166.66	3814232.95	18.61	8.71
								11238163.36	3814232.75	18.61	8.71
								11238163.42	3814229.77	18.61	8.69
								11238164.61	3814229.77	18.61	8.69
								11238164.75	3814227.19	18.61	8.67

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11238167.00	3814227.39	18.61	8.67
							11238167.59	3814220.78	18.61	8.66
							11238163.95	3814220.38	18.61	8.62
							11238164.27	3814217.23	18.61	8.59
							11238156.28	3814216.81	18.61	8.60
							11238156.18	3814215.44	18.61	8.59
							11238151.56	3814214.92	18.61	8.62
							11238151.45	3814216.18	18.61	8.62
							11238145.15	3814215.65	18.61	8.65
							11238145.25	3814214.60	18.61	8.65
							11238136.01	3814213.87	18.61	8.71
							11238136.01	3814214.60	18.61	8.71
							11238132.86	3814214.50	18.61	8.73
							11238132.54	3814218.38	18.61	8.73
							11238126.87	3814218.07	18.61	8.77
							11238127.40	3814213.03	18.61	8.78
							11238120.78	3814212.50	18.61	8.82
							11238120.58	3814215.48	18.61	8.81
							11238117.10	3814215.13	18.61	8.84
							11238116.49	3814220.84	18.61	8.83
							11238117.73	3814220.90	18.61	8.82
							11238117.52	3814223.95	18.61	8.82
							11238118.78	3814224.05	18.61	8.81
							11238118.50	3814226.50	18.61	8.81
							11238116.47	3814226.37	18.61	8.82
							11238116.05	3814232.93	18.61	8.82
							11238119.15	3814233.30	18.61	8.80
							11238118.89	3814236.34	18.61	8.81
							11238126.87	3814236.97	18.61	8.80
							11238127.06	3814235.74	18.61	8.79
							11238130.34	3814236.03	18.61	8.79
							11238130.23	3814237.29	18.61	8.80
							11238135.07	3814237.81	18.61	8.79
							11238135.16	3814236.77	18.61	8.79
							11238137.87	3814236.95	18.61	8.78
							11238137.94	3814238.01	18.61	8.79
							11238142.84	3814238.34	18.61	8.79
							11238142.93	3814236.78	18.61	8.77
							11238145.70	3814237.04	18.61	8.77
							11238145.57	3814238.45	18.61	8.78
							11238151.09	3814238.63	18.61	8.78
							11238151.37	3814235.03	18.61	8.75
							11238154.39	3814235.19	18.61	8.75
							11238153.66	3814241.91	18.61	8.80
							11238151.03	3814241.70	18.61	8.80
							11238150.79	3814244.75	18.61	8.82
							11238152.42	3814244.85	18.61	8.82
							11238152.29	3814247.48	18.61	8.84
							11238154.60	3814247.79	18.61	8.84
							11238153.93	3814254.00	18.61	8.77
							11238151.03	3814253.68	18.61	8.77
							11238151.24	3814250.00	18.61	8.81
							11238146.30	3814249.58	18.61	8.80
							11238146.24	3814250.82	18.61	8.79
							11238142.93	3814250.81	18.61	8.78
							11238143.05	3814248.84	18.61	8.80
							11238138.53	3814248.42	18.61	8.80
							11238138.53	3814249.37	18.61	8.79
							11238131.60	3814248.74	18.61	8.78
							11238131.49	3814247.79	18.61	8.79
							11238122.57	3814247.06	18.61	8.78
							11238122.57	3814247.79	18.61	8.78
							11238119.62	3814247.69	18.61	8.81

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238119.83	3814246.43	18.61	8.80
								11238111.96	3814245.80	18.61	8.85
								11238111.75	3814248.53	18.61	8.86
								11238110.17	3814248.63	18.61	8.85
								11238109.75	3814253.57	18.61	8.86
								11238107.44	3814253.47	18.61	8.85
								11238107.23	3814254.94	18.61	8.85
								11238109.65	3814255.15	18.61	8.86
								11238109.44	3814257.67	18.61	8.87
								11238108.17	3814257.77	18.61	8.86
								11238108.17	3814260.61	18.61	8.86
								11238106.70	3814260.61	18.61	8.85
			x	0		4.60	r	11238097.36	3814231.78	13.44	8.84
								11238106.36	3814232.57	13.44	8.84
								11238107.15	3814224.83	13.44	8.84
								11238110.06	3814225.16	13.44	8.84
								11238110.59	3814216.69	13.44	8.84
								11238107.68	3814216.44	13.44	8.84
								11238108.21	3814210.54	13.44	8.84
								11238104.31	3814210.14	13.44	8.84
								11238104.24	3814211.66	13.44	8.84
								11238100.20	3814211.26	13.44	8.84
								11238099.94	3814213.25	13.44	8.84
								11238096.56	3814212.92	13.44	8.84
								11238097.03	3814209.74	13.44	8.84
								11238088.95	3814208.88	13.44	8.87
								11238088.23	3814214.70	13.44	8.86
								11238080.15	3814214.17	13.44	9.07
								11238079.56	3814222.05	13.44	8.98
								11238098.22	3814223.90	13.44	8.84
			x	0		6.70	r	11237905.46	3814205.38	18.34	11.64
								11237914.47	3814205.18	18.34	11.59
								11237914.43	3814204.36	18.34	11.58
								11237923.12	3814203.86	18.34	11.53
								11237923.13	3814204.51	18.34	11.54
								11237932.31	3814203.84	18.34	11.50
								11237932.04	3814199.06	18.34	11.50
								11237932.94	3814199.01	18.34	11.50
								11237932.73	3814195.02	18.34	11.50
								11237927.74	3814195.33	18.34	11.50
								11237927.74	3814193.13	18.34	11.50
								11237929.89	3814192.97	18.34	11.50
								11237929.06	3814180.72	18.34	11.50
								11237926.72	3814181.05	18.34	11.50
								11237926.64	3814176.71	18.34	11.50
								11237928.76	3814176.52	18.34	11.50
								11237927.92	3814163.93	18.34	11.50
								11237925.76	3814164.09	18.34	11.50
								11237925.76	3814160.17	18.34	11.50
								11237927.84	3814159.92	18.34	11.50
								11237927.34	3814148.00	18.34	11.50
								11237925.09	3814148.17	18.34	11.50
								11237924.92	3814146.00	18.34	11.50
								11237929.92	3814145.67	18.34	11.50
								11237929.63	3814141.37	18.34	11.50
								11237928.38	3814141.37	18.34	11.50
								11237928.34	3814137.33	18.34	11.50
								11237921.63	3814137.66	18.34	11.51
								11237921.59	3814136.87	18.34	11.52
								11237919.59	3814137.00	18.34	11.52
								11237919.59	3814137.96	18.34	11.52
								11237910.66	3814138.46	18.34	11.55
								11237910.54	3814137.66	18.34	11.55

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237908.40	3814137.96	18.34	11.56
								11237908.44	3814138.69	18.34	11.55
								11237901.91	3814139.04	18.34	11.58
								11237902.12	3814143.33	18.34	11.55
								11237901.04	3814143.33	18.34	11.56
								11237901.24	3814147.42	18.34	11.53
								11237906.23	3814147.16	18.34	11.52
								11237906.41	3814149.29	18.34	11.50
								11237904.08	3814149.46	18.34	11.51
								11237904.83	3814161.72	18.34	11.50
								11237907.25	3814161.55	18.34	11.50
								11237907.41	3814165.64	18.34	11.50
								11237905.16	3814165.89	18.34	11.50
								11237906.00	3814177.97	18.34	11.50
								11237907.83	3814177.81	18.34	11.50
								11237908.08	3814182.06	18.34	11.50
								11237906.08	3814182.48	18.34	11.50
								11237906.87	3814194.52	18.34	11.52
								11237909.12	3814194.26	18.34	11.50
								11237909.19	3814196.57	18.34	11.53
								11237904.19	3814196.84	18.34	11.55
								11237904.45	3814201.12	18.34	11.60
								11237905.35	3814201.07	18.34	11.60
			x	0		9.75	r	11238039.03	3814154.34	18.89	9.14
								11238038.54	3814160.90	18.89	9.27
								11238040.69	3814161.10	18.89	9.28
								11238040.44	3814163.68	18.89	9.32
								11238039.44	3814163.68	18.89	9.31
								11238039.28	3814166.27	18.89	9.35
								11238037.86	3814166.27	18.89	9.34
								11238037.61	3814172.19	18.89	9.43
								11238040.94	3814172.44	18.89	9.45
								11238040.69	3814175.94	18.89	9.50
								11238047.20	3814176.27	18.89	9.55
								11238047.61	3814171.52	18.89	9.48
								11238052.53	3814171.94	18.89	9.48
								11238052.12	3814176.94	18.89	9.58
								11238057.20	3814177.35	18.89	9.59
								11238057.28	3814176.52	18.89	9.57
								11238063.29	3814176.94	18.89	9.55
								11238063.20	3814178.02	18.89	9.57
								11238067.87	3814178.52	18.89	9.55
								11238068.29	3814176.06	18.89	9.50
								11238073.42	3814176.44	18.89	9.48
								11238073.29	3814177.35	18.89	9.50
								11238077.13	3814177.77	18.89	9.45
								11238077.09	3814178.52	18.89	9.46
								11238080.05	3814178.77	18.89	9.42
								11238079.96	3814179.77	18.89	9.43
								11238089.63	3814180.36	18.89	9.31
								11238089.80	3814179.48	18.89	9.30
								11238092.47	3814179.69	18.89	9.27
								11238092.89	3814176.02	18.89	9.23
								11238098.22	3814176.52	18.89	9.16
								11238097.64	3814181.11	18.89	9.21
								11238104.47	3814181.69	18.89	9.13
								11238104.61	3814178.58	18.89	9.10
								11238108.51	3814178.91	18.89	9.06
								11238108.97	3814173.35	18.89	9.01
								11238107.44	3814173.24	18.89	9.01
								11238108.78	3814158.07	18.89	8.86
								11238042.87	3814151.71	18.89	9.08
								11238042.54	3814154.56	18.89	9.14

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		9.75	r	11237904.07	3814078.49	17.44	7.69
								11237909.95	3814086.21	17.44	7.65
								11237912.05	3814084.16	17.44	7.65
								11237913.15	3814085.47	17.44	7.65
								11237912.42	3814086.21	17.44	7.67
								11237917.51	3814092.72	17.44	7.64
								11237924.66	3814086.79	17.44	7.57
								11237926.07	3814088.52	17.44	7.59
								11237928.99	3814085.74	17.44	7.58
								11237929.44	3814086.26	17.44	7.59
								11237937.05	3814079.91	17.44	7.58
								11237936.21	3814078.86	17.44	7.57
								11237938.31	3814077.12	17.44	7.57
								11237938.68	3814077.60	17.44	7.58
								11237942.20	3814074.81	17.44	7.57
								11237941.25	3814073.66	17.44	7.56
								11237946.14	3814069.72	17.44	7.56
								11237946.77	3814070.35	17.44	7.57
								11237948.66	3814068.56	17.44	7.56
								11237949.60	3814069.46	17.44	7.57
								11237957.06	3814063.26	17.44	7.58
								11237956.22	3814062.21	17.44	7.58
								11237958.47	3814060.48	17.44	7.58
								11237955.38	3814056.64	17.44	7.55
								11237956.54	3814055.59	17.44	7.55
								11237958.64	3814057.90	17.44	7.57
								11237965.99	3814052.23	17.44	7.57
								11237964.24	3814049.73	17.44	7.54
								11237965.57	3814048.56	17.44	7.53
								11237920.72	3813989.94	17.44	6.81
								11237912.53	3813997.09	17.44	6.88
								11237914.31	3813999.19	17.44	6.88
								11237913.05	3814000.03	17.44	6.90
								11237911.37	3813997.82	17.44	6.90
								11237903.81	3814004.23	17.44	7.02
								11237905.59	3814006.44	17.44	7.02
								11237904.33	3814007.17	17.44	7.04
								11237907.69	3814011.16	17.44	7.03
								11237909.27	3814009.80	17.44	7.01
								11237910.95	3814012.00	17.44	7.01
								11237910.00	3814012.74	17.44	7.03
								11237911.90	3814014.94	17.44	7.03
								11237910.85	3814015.89	17.44	7.04
								11237917.15	3814023.66	17.44	7.06
								11237918.30	3814022.82	17.44	7.04
								11237921.67	3814027.13	17.44	7.09
								11237920.51	3814028.08	17.44	7.10
								11237926.39	3814036.27	17.44	7.22
								11237927.55	3814035.32	17.44	7.21
								11237930.70	3814039.32	17.44	7.27
								11237929.33	3814040.58	17.44	7.28
								11237932.51	3814044.55	17.44	7.34
								11237933.24	3814044.08	17.44	7.34
								11237935.69	3814047.39	17.44	7.39
								11237937.14	3814045.67	17.44	7.37
								11237938.00	3814046.60	17.44	7.39
								11237938.67	3814046.10	17.44	7.38
								11237941.09	3814049.27	17.44	7.43
								11237942.17	3814049.35	17.44	7.44
								11237941.92	3814050.18	17.44	7.44
								11237942.09	3814051.85	17.44	7.46
								11237939.17	3814053.60	17.44	7.46
								11237938.42	3814053.18	17.44	7.46

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237935.42	3814055.77	17.44	7.45
								11237934.75	3814055.02	17.44	7.44
								11237934.08	3814055.52	17.44	7.44
								11237932.58	3814053.52	17.44	7.43
								11237929.00	3814056.35	17.44	7.42
								11237929.75	3814057.27	17.44	7.43
								11237927.91	3814058.69	17.44	7.43
								11237927.16	3814057.35	17.44	7.42
								11237919.33	3814063.94	17.44	7.42
								11237920.08	3814064.77	17.44	7.43
								11237916.03	3814068.10	17.44	7.43
								11237915.17	3814067.34	17.44	7.44
								11237914.16	3814068.44	17.44	7.47
								11237915.82	3814070.11	17.44	7.45
								11237914.10	3814071.65	17.44	7.50
								11237913.49	3814070.86	17.44	7.50
								11237909.55	3814074.43	17.44	7.61
								11237909.97	3814074.85	17.44	7.60
								11237907.93	3814076.62	17.44	7.66
								11237906.24	3814074.64	17.44	7.67
								11237905.33	3814075.52	17.44	7.69
								11237906.14	3814076.48	17.44	7.69
			x	0		4.60	r	11237881.78	3814008.79	11.88	7.28
								11237891.07	3814025.96	11.88	7.31
								11237893.17	3814024.65	11.88	7.28
								11237893.49	3814025.39	11.88	7.28
								11237895.54	3814024.13	11.88	7.25
								11237895.22	3814023.60	11.88	7.25
								11237897.43	3814022.39	11.88	7.22
								11237899.74	3814021.08	11.88	7.19
								11237895.70	3814013.52	11.88	7.17
								11237898.69	3814011.78	11.88	7.13
								11237895.49	3814005.48	11.88	7.11
								11237897.74	3814004.22	11.88	7.08
								11237895.07	3813999.55	11.88	7.15
								11237893.17	3814000.70	11.88	7.17
								11237892.65	3813999.81	11.88	7.18
								11237891.39	3814000.91	11.88	7.19
								11237890.50	3813999.28	11.88	7.23
								11237887.71	3814001.23	11.88	7.25
								11237888.34	3814002.59	11.88	7.23
								11237886.92	3814003.38	11.88	7.24
								11237887.34	3814004.11	11.88	7.23
								11237883.93	3814006.11	11.88	7.27
								11237884.56	3814007.11	11.88	7.25
			x	0		9.75	r	11237824.66	3813980.79	17.23	7.48
								11237875.27	3813944.25	17.23	7.41
								11237897.74	3813973.02	17.23	7.33
								11237883.25	3813983.52	17.23	7.31
								11237871.49	3813968.61	17.23	7.42
								11237835.16	3813995.91	17.23	7.33

Geometrie Höhenlinien

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237871.28	3814268.78	13.40
						11237882.03	3814269.78	11.90
						11237895.54	3814270.95	11.60
						11237910.79	3814272.20	11.00
						11237946.38	3814275.70	11.00
						11237960.87	3814277.35	10.70

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11238006.05	3814281.45	10.50
						11238074.42	3814287.97	10.10
						11238128.34	3814292.90	9.15
						11238169.52	3814296.90	8.54
						11238187.85	3814298.40	9.15
						11238186.80	3814204.20	7.93
						11237865.11	3814280.70	12.20
						11237919.09	3814284.91	11.00
						11238073.25	3814299.82	11.00
						11238250.89	3814315.71	10.10
						11237902.99	3814212.44	11.60
						11237901.21	3814224.35	11.50
						11237900.28	3814243.40	11.50
						11237902.00	3814246.57	11.50
						11237950.17	3814249.75	11.00
						11237953.34	3814243.13	11.00
						11237958.77	3814244.06	11.00
						11237960.35	3814251.21	10.90
						11237989.86	3814253.46	10.90
						11238007.73	3814255.18	10.70
						11238009.71	3814251.60	10.70
						11238012.09	3814224.48	11.30
						11238004.75	3814221.37	11.30
						11237962.54	3814218.13	11.00
						11237942.76	3814216.34	11.00
						11237905.17	3814212.56	11.60
						11238034.49	3814231.70	10.40
						11238032.99	3814240.04	10.50
						11238032.90	3814255.29	10.40
						11238037.07	3814258.71	10.40
						11238071.50	3814261.46	9.76
						11238099.75	3814264.05	8.84
						11238103.51	3814259.21	8.84
						11238102.92	3814241.21	8.84
						11238097.59	3814236.29	8.84
						11238036.24	3814231.12	10.40
						11238112.56	3814239.62	8.84
						11238108.46	3814246.89	8.84
						11238105.41	3814257.35	8.84
						11238103.30	3814270.71	8.84
						11238114.15	3814274.15	8.93
						11238162.18	3814277.99	8.54
						11238169.19	3814272.83	8.54
						11238172.37	3814250.73	8.84
						11238172.50	3814218.98	8.84
						11238164.30	3814210.64	8.54
						11238121.56	3814208.39	8.84
						11238114.94	3814217.25	8.84
						11238112.16	3814239.35	8.84
						11238112.72	3814207.99	8.84
						11238091.71	3814201.80	8.84
						11238077.95	3814210.62	9.15
						11238074.07	3814220.91	8.99
						11238085.10	3814231.21	8.84
						11238099.06	3814234.46	8.84
						11238035.65	3814154.34	9.15
						11238032.74	3814175.25	9.45
						11238059.21	3814185.97	9.76
						11238107.77	3814188.61	9.15
						11238122.06	3814164.66	9.15
						11238120.07	3814155.53	9.15
						11237903.76	3814209.71	11.70
						11237902.44	3814191.06	11.50

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237901.25	3814153.21	11.50
						11237899.92	3814136.14	11.60
						11237930.89	3814133.89	11.50
						11237935.25	3814206.67	11.50
						11237933.93	3814132.97	11.50
						11237963.18	3814143.95	11.00
						11237993.61	3814171.60	9.45
						11238023.78	3814173.72	9.76
						11237898.20	3814133.45	11.00
						11237897.36	3814121.11	8.54
						11237893.03	3814100.94	7.62
						11237880.03	3814067.93	7.62
						11237861.35	3814016.74	7.62
						11237844.60	3814008.66	7.32
						11237824.93	3813996.32	7.32
						11237916.25	3814099.08	7.93
						11237901.43	3814082.14	7.62
						11237900.90	3814072.35	7.74
						11237912.78	3814050.56	7.32
						11237892.08	3814029.08	7.32
						11237877.91	3814010.91	7.32
						11237871.24	3813998.24	7.26
						11237854.43	3813994.25	7.32
						11237831.96	3813999.08	7.30
						11237821.24	3813984.16	7.32
						11237825.75	3813978.00	7.56
						11237860.61	3813946.91	7.56
						11237881.20	3813937.25	7.32
						11237900.52	3813973.37	7.32
						11237925.85	3813991.70	6.71
						11237971.28	3814054.17	7.62
						11237957.78	3814072.04	7.62
						11237921.26	3814097.71	7.62
						11237984.06	3814104.64	11.30
						11238018.30	3814121.86	10.40
						11238056.65	3814140.87	8.84
						11238109.00	3814156.21	8.84

Geometrie Bruchkanten

Name	M.	ID	Coordinates	
			x	y
			(m)	(m)

Bericht (Cumltv plus Prj 2nd Floor Rcvrs_051514.cna)

Gruppentabelle Tag und Nacht

Name	Expression	R 7-1B		R 7-2B		R 7-3B		R 7-4B		R 7-5B		R 7-6B		R 7-7B		R 7-8B		R 7-9I	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	N

Source																			
Name	M.	ID	R 7-1B		R 7-2B		R 7-3B		R 7-4B		R 7-5B		R 7-6B		R 7-7B		R 7-8B		
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	
Los Carneros Road																	37.9		
US 101 SB Onramp													47.9		45.0		24.0		
US 101 SB Offramp																	-6.6		
US 101 SB															26.4		17.6		
US 101 SB			62.7	-84.6	62.6	-84.8	62.3	-85.0	61.9	-85.4	58.9	-86.1	55.0		50.8		33.0		
US 101 NB			53.3		53.2		53.0		57.3		54.4		52.2		48.7		31.1		
US 101 NB															24.5		16.7		
UPRR			49.5	49.5	49.9	49.9	50.3	50.3	50.8	50.8	51.1	51.1	34.6	34.6	35.6	35.6	33.8	33.8	
UPRR			67.6	67.6	67.6	67.6	67.8	67.8	67.6	67.6	64.6	64.6	60.7	60.7	55.3	55.3	45.0	45.0	

Schallquellen

Punktquellen

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night	
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)

Linienquellen

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen vertikal

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Schienen

Name	M.	ID	Lm,E		Train Class	Add.Level				Vmax
			Day	Night		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0						
UPRR			78.0	78.0						

Zugklassen

Name	M.	ID	Lm,E		Train Class										Add.Level				Vmax
			Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night	(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0																
UPRR			78.0	78.0																

Name	Lm,E		Train Class									
	Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)	
	(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night

Parkplätze

Name	M.	ID	Type	Lwa			Event Data						Penalty Type		Penalty Surface		A
				Day	Special	Night	Ref. Quantity	Number B	No. Spaces/RefQ	Events/h/RefQ			Kpa	Type	Kstro	Surface	
				(dBA)	(dBA)	(dBA)				Day	Special	Night	(dB)		(dB)		

Strassen

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	S
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Ds
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(d
Los Carneros Road			70.2	0.0	0.0			3333.0	0.0	0.0	5.0	0.0	0.0	72		RQ 20	
US 101 SB Onramp			66.2	0.0	0.0			1339.0	0.0	0.0	5.0	0.0	0.0	72		RQ 12	
US 101 SB Offramp			61.8	0.0	0.0			190.0	0.0	0.0	5.0	0.0	0.0	100		RQ 12	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	

Ampeln

Name	M.	ID	Active			Height	Coordinates		
			Day	Evening	Night	Begin	X	Y	Z
						(m)	(m)	(m)	(m)

Immissionspunkte

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 7-1B			69.0	67.7	0.0	0.0		x	Total	4.55	r	11238158.88	3814274.45	13.12
R 7-2B			69.0	67.7	0.0	0.0		x	Total	4.55	r	11238145.19	3814273.08	13.22
R 7-3B			69.0	67.8	0.0	0.0		x	Total	4.55	r	11238128.68	3814272.48	13.35
R 7-4B			69.0	67.7	0.0	0.0		x	Total	4.55	r	11238111.97	3814270.98	13.46
R 7-5B			66.1	64.8	0.0	0.0		x	Total	4.55	r	11238105.86	3814263.69	13.40
R 7-6B			62.3	60.7	0.0	0.0		x	Total	4.55	r	11238107.53	3814258.72	13.41
R 7-7B			57.5	55.3	0.0	0.0		x	Total	4.55	r	11238109.36	3814250.46	13.40
R 7-8B			46.4	45.4	0.0	0.0		x	Total	4.55	r	11238117.34	3814245.69	13.37
R 7-9B			46.2	45.3	0.0	0.0		x	Total	4.55	r	11238129.68	3814247.19	13.34
R 7-10B			51.0	50.5	0.0	0.0		x	Total	4.55	r	11238139.98	3814238.42	13.34
R 7-11B			50.9	50.4	0.0	0.0		x	Total	4.55	r	11238132.71	3814238.00	13.35
R 7-12B			50.8	50.1	0.0	0.0		x	Total	4.55	r	11238122.29	3814237.03	13.36
R 7-13B			56.0	54.0	0.0	0.0		x	Total	4.55	r	11238115.68	3814231.37	13.38
R 7-14B			55.7	54.0	0.0	0.0		x	Total	4.55	r	11238117.37	3814222.06	13.37
R 7-15B			50.2	49.6	0.0	0.0		x	Total	4.55	r	11238124.18	3814211.84	13.35
R 7-16B			62.3	59.3	0.0	0.0		x	Total	4.55	r	11238167.78	3814224.98	13.22
R 7-17B			59.9	57.0	0.0	0.0		x	Total	4.55	r	11238165.37	3814240.73	13.32
R 7-18B			64.6	62.3	0.0	0.0		x	Total	4.55	r	11238167.76	3814253.05	13.36
R 7-19B			66.3	64.2	0.0	0.0		x	Total	4.55	r	11238163.26	3814267.75	13.20
R 8-1B			68.0	66.7	0.0	0.0		x	Total	4.55	r	11238095.94	3814262.98	13.51
R 8-2B			68.0	66.8	0.0	0.0		x	Total	4.55	r	11238091.05	3814262.56	13.67

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 8-3B			67.9	66.6	0.0	0.0		x	Total	4.55	r	11238082.91	3814260.93	13.93
R 8-4B			68.1	66.8	0.0	0.0		x	Total	4.55	r	11238077.03	3814261.14	14.13
R 8-5B			68.0	66.7	0.0	0.0		x	Total	4.55	r	11238070.78	3814259.57	14.31
R 8-6B			67.6	66.3	0.0	0.0		x	Total	4.55	r	11238063.82	3814257.53	14.46
R 8-7B			68.1	66.9	0.0	0.0		x	Total	4.55	r	11238058.76	3814259.29	14.55
R 8-8B			68.1	66.9	0.0	0.0		x	Total	4.55	r	11238051.34	3814258.62	14.69
R 8-9B			68.1	66.9	0.0	0.0		x	Total	4.55	r	11238044.92	3814258.04	14.81
R 8-10B			68.2	66.9	0.0	0.0		x	Total	4.55	r	11238038.91	3814257.62	14.92
R 8-11B			66.5	65.1	0.0	0.0		x	Total	4.55	r	11238035.70	3814252.75	14.98
R 8-12B			58.3	56.4	0.0	0.0		x	Total	4.55	r	11238036.20	3814245.83	14.98
R 8-13B			64.2	62.4	0.0	0.0		x	Total	4.55	r	11238034.70	3814242.25	15.02
R 8-14B			64.2	62.4	0.0	0.0		x	Total	4.55	r	11238034.12	3814238.16	15.02
R 8-15B			50.0	49.5	0.0	0.0		x	Total	4.55	r	11238037.20	3814235.58	14.95
R 8-16B			46.3	44.7	0.0	0.0		x	Total	4.55	r	11238041.79	3814233.08	14.82
R 8-17B			46.2	44.7	0.0	0.0		x	Total	4.55	r	11238050.79	3814234.66	14.60
R 8-18B			45.7	44.0	0.0	0.0		x	Total	4.55	r	11238073.05	3814235.66	14.03
R 8-19B			46.1	44.0	0.0	0.0		x	Total	4.55	r	11238092.32	3814237.58	13.54
R 8-20B			47.1	44.1	0.0	0.0		x	Total	4.55	r	11238097.48	3814238.25	13.40
R 8-21B			47.5	46.7	0.0	0.0		x	Total	4.55	r	11238099.57	3814242.92	13.39
R 8-22B			47.7	46.9	0.0	0.0		x	Total	4.55	r	11238099.32	3814249.25	13.39
R 8-23B			46.9	46.2	0.0	0.0		x	Total	4.55	r	11238100.15	3814252.50	13.39
R 8-24B			64.4	62.5	0.0	0.0		x	Total	4.55	r	11238100.82	3814257.51	13.39
R 5-1B			68.0	66.6	0.0	0.0		x	Total	4.55	r	11238006.18	3814253.15	15.28
R 5-2B			68.3	67.0	0.0	0.0		x	Total	4.55	r	11238001.34	3814253.81	15.33
R 5-3B			67.8	66.4	0.0	0.0		x	Total	4.55	r	11237996.01	3814250.31	15.43
R 5-4B			68.0	66.6	0.0	0.0		x	Total	4.55	r	11237988.02	3814249.60	15.47
R 5-5B			67.1	65.3	0.0	0.0		x	Total	4.55	r	11237984.83	3814247.14	15.47
R 5-6B			68.1	66.7	0.0	0.0		x	Total	4.55	r	11237979.50	3814249.06	15.48
R 5-7B			67.8	66.2	0.0	0.0		x	Total	4.55	r	11237972.41	3814248.34	15.50
R 5-8B			68.4	67.1	0.0	0.0		x	Total	4.55	r	11237966.91	3814250.73	15.46
R 5-9B			68.3	66.9	0.0	0.0		x	Total	4.55	r	11237962.02	3814249.08	15.48
R 5-10B			65.5	64.0	0.0	0.0		x	Total	4.55	r	11237960.24	3814244.31	15.55
R 5-11B			63.1	61.2	0.0	0.0		x	Total	4.55	r	11237961.24	3814232.50	15.55
R 5-12B			61.7	59.7	0.0	0.0		x	Total	4.55	r	11237962.10	3814224.53	15.55
R 5-13B			51.4	49.5	0.0	0.0		x	Total	4.55	r	11237965.48	3814220.85	15.55
R 5-14B			51.5	48.7	0.0	0.0		x	Total	4.55	r	11237969.18	3814220.11	15.58
R 5-15B			50.5	49.8	0.0	0.0		x	Total	4.55	r	11237984.40	3814224.30	15.67
R 5-16B			51.1	49.3	0.0	0.0		x	Total	4.55	r	11238003.88	3814223.39	15.82
R 5-17B			51.1	50.4	0.0	0.0		x	Total	4.55	r	11238008.63	3814224.56	15.82
R 5-18B			63.5	61.1	0.0	0.0		x	Total	4.55	r	11238010.32	3814229.42	15.73
R 5-19B			64.5	62.2	0.0	0.0		x	Total	4.55	r	11238009.29	3814238.06	15.54
R 5-20B			66.0	63.9	0.0	0.0		x	Total	4.55	r	11238008.49	3814249.18	15.31
R4-1B			65.7	63.5	0.0	0.0		x	Total	4.55	r	11237949.84	3814242.00	15.55
R4-2B			68.2	66.9	0.0	0.0		x	Total	4.55	r	11237947.43	3814247.77	15.57
R4-3B			68.5	67.2	0.0	0.0		x	Total	4.55	r	11237941.96	3814248.40	15.63
R4-4B			68.0	66.7	0.0	0.0		x	Total	4.55	r	11237937.34	3814245.25	15.67
R4-5B			68.3	66.9	0.0	0.0		x	Total	4.55	r	11237929.36	3814244.20	15.76
R4-6B			67.1	65.6	0.0	0.0		x	Total	4.55	r	11237924.74	3814241.89	15.80
R4-7B			68.4	67.1	0.0	0.0		x	Total	4.55	r	11237921.16	3814243.89	15.84
R4-8B			67.8	66.4	0.0	0.0		x	Total	4.55	r	11237913.18	3814243.26	15.92
R4-9B			68.9	67.6	0.0	0.0		x	Total	4.55	r	11237907.93	3814245.36	15.98
R4-10B			68.8	67.5	0.0	0.0		x	Total	4.55	r	11237903.22	3814243.82	16.03
R4-11B			67.3	65.5	0.0	0.0		x	Total	4.55	r	11237901.39	3814239.15	16.05
R4-12B			66.9	65.0	0.0	0.0		x	Total	4.55	r	11237901.89	3814232.81	16.05
R4-13B			66.7	64.7	0.0	0.0		x	Total	4.55	r	11237902.64	3814226.72	16.03
R4-14B			66.5	64.5	0.0	0.0		x	Total	4.55	r	11237903.14	3814220.22	16.08
R4-15B			60.1	50.5	0.0	0.0		x	Total	4.55	r	11237905.89	3814215.30	16.10
R4-16B			59.5	50.4	0.0	0.0		x	Total	4.55	r	11237910.23	3814214.63	16.05
R4-17B			53.0	49.4	0.0	0.0		x	Total	4.55	r	11237915.31	3814218.22	15.93
R4-18B			53.8	48.9	0.0	0.0		x	Total	4.55	r	11237923.65	3814218.89	15.80
R4-19B			53.6	48.8	0.0	0.0		x	Total	4.55	r	11237931.41	3814219.39	15.69
R4-20B			52.6	48.0	0.0	0.0		x	Total	4.55	r	11237938.41	3814220.14	15.60
R4-21B			52.4	48.0	0.0	0.0		x	Total	4.55	r	11237944.50	3814217.80	15.55

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R4-22B			49.2	48.2	0.0	0.0		x	Total	4.55	r	11237949.25	3814219.14	15.55
R4-23B			62.0	59.7	0.0	0.0		x	Total	4.55	r	11237951.00	3814224.81	15.55
R4-24B			63.9	61.7	0.0	0.0		x	Total	4.55	r	11237950.00	3814235.23	15.55
R3-1B			60.6	59.3	0.0	0.0		x	Total	4.55	r	11237930.46	3814204.31	16.05
R3-2B			61.4	60.0	0.0	0.0		x	Total	4.55	r	11237924.19	3814204.84	16.09
R3-3B			64.0	62.6	0.0	0.0		x	Total	4.55	r	11237913.90	3814205.68	16.15
R3-4B			65.8	64.0	0.0	0.0		x	Total	4.55	r	11237906.25	3814205.88	16.19
R3-5B			66.0	64.0	0.0	0.0		x	Total	4.55	r	11237903.92	3814198.64	16.13
R3-6B			65.3	63.1	0.0	0.0		x	Total	4.55	r	11237906.41	3814190.27	16.05
R3-7B			65.4	63.3	0.0	0.0		x	Total	4.55	r	11237905.92	3814184.34	16.05
R3-8B			65.4	63.3	0.0	0.0		x	Total	4.55	r	11237905.28	3814175.17	16.05
R3-10B			65.3	63.0	0.0	0.0		x	Total	4.55	r	11237904.36	3814159.15	16.05
R3-11B			65.2	63.0	0.0	0.0		x	Total	4.55	r	11237903.89	3814152.34	16.05
R3-12B			65.4	63.2	0.0	0.0		x	Total	4.55	r	11237900.93	3814146.17	16.09
R3-13B			65.0	62.8	0.0	0.0		x	Total	4.55	r	11237901.77	3814140.17	16.12
R3-14B			57.0	47.7	0.0	0.0		x	Total	4.55	r	11237904.96	3814138.70	16.12
R3-15B			54.9	48.1	0.0	0.0		x	Total	4.55	r	11237916.26	3814137.67	16.08
R3-16B			53.5	47.4	0.0	0.0		x	Total	4.55	r	11237926.46	3814137.10	16.05
R3-17B			54.1	52.8	0.0	0.0		x	Total	4.55	r	11237930.11	3814142.83	16.05
R3-18B			54.0	53.3	0.0	0.0		x	Total	4.55	r	11237928.78	3814169.17	16.05
R3-19B			53.9	53.3	0.0	0.0		x	Total	4.55	r	11237929.78	3814185.83	16.05
R3-20B			54.8	54.3	0.0	0.0		x	Total	4.55	r	11237932.95	3814200.50	16.05
R2-1B			61.4	60.4	0.0	0.0		x	Total	4.55	r	11237916.87	3814093.05	12.19
R2-2B			61.2	60.3	0.0	0.0		x	Total	4.55	r	11237911.83	3814086.96	12.21
R2-3B			61.1	60.2	0.0	0.0		x	Total	4.55	r	11237907.84	3814085.07	12.20
R2-4B			60.9	60.0	0.0	0.0		x	Total	4.55	r	11237903.85	3814080.45	12.22
R2-5B			58.8	57.6	0.0	0.0		x	Total	4.55	r	11237905.11	3814076.46	12.25
R2-6B			51.4	46.0	0.0	0.0		x	Total	4.55	r	11237911.41	3814071.62	12.10
R2-7B			52.8	49.3	0.0	0.0		x	Total	4.55	r	11237917.71	3814065.53	11.97
R2-8B			54.7	52.3	0.0	0.0		x	Total	4.55	r	11237924.85	3814058.18	11.96
R2-9B			53.5	50.8	0.0	0.0		x	Total	4.55	r	11237931.15	3814054.19	11.97
R2-10B			50.0	43.1	0.0	0.0		x	Total	4.55	r	11237936.41	3814052.93	11.99
R2-11B			55.7	54.1	0.0	0.0		x	Total	4.55	r	11237933.89	3814046.84	11.92
R2-12B			57.8	56.6	0.0	0.0		x	Total	4.55	r	11237929.05	3814041.59	11.84
R2-13B			59.4	58.3	0.0	0.0		x	Total	4.55	r	11237922.96	3814033.40	11.72
R2-14B			59.8	58.8	0.0	0.0		x	Total	4.55	r	11237915.40	3814023.32	11.62
R2-15B			59.8	58.7	0.0	0.0		x	Total	4.55	r	11237910.36	3814016.60	11.61
R2-16B			59.9	59.1	0.0	0.0		x	Total	4.55	r	11237904.69	3814008.41	11.59
R2-17B			55.7	54.1	0.0	0.0		x	Total	4.55	r	11237905.53	3814001.90	11.53
R2-18B			53.8	51.2	0.0	0.0		x	Total	4.55	r	11237908.89	3813998.96	11.48
R2-19B			52.8	49.4	0.0	0.0		x	Total	4.55	r	11237914.35	3813994.34	11.43
R2-20B			52.0	47.6	0.0	0.0		x	Total	4.55	r	11237917.92	3813991.82	11.39
R2-21B			45.1	44.9	0.0	0.0		x	Total	4.55	r	11237925.48	3813995.60	11.30
R2-22B			45.3	45.1	0.0	0.0		x	Total	4.55	r	11237935.78	3814009.04	11.50
R2-23B			45.5	45.2	0.0	0.0		x	Total	4.55	r	11237947.96	3814024.79	11.73
R2-24B			45.9	45.6	0.0	0.0		x	Total	4.55	r	11237960.56	3814040.96	11.97
R2-25B			55.3	54.2	0.0	0.0		x	Total	4.55	r	11237962.45	3814056.29	12.13
R2-26B			58.5	57.6	0.0	0.0		x	Total	4.55	r	11237951.11	3814068.68	12.12
R2-27B			58.4	57.4	0.0	0.0		x	Total	4.55	r	11237956.15	3814064.69	12.13
R2-28B			58.3	57.6	0.0	0.0		x	Total	4.55	r	11237941.24	3814076.04	12.13
R2-29B			59.5	58.8	0.0	0.0		x	Total	4.55	r	11237935.57	3814081.92	12.14
R2-30B			60.7	60.0	0.0	0.0		x	Total	4.55	r	11237927.16	3814088.22	12.14
R6-1B			56.1	55.3	0.0	0.0		x	Total	4.55	r	11238102.76	3814182.07	13.71
R6-2B			56.2	55.3	0.0	0.0		x	Total	4.55	r	11238087.19	3814180.63	13.90
R6-3B			58.3	56.9	0.0	0.0		x	Total	4.55	r	11238054.90	3814177.76	14.15
R6-4B			58.5	57.0	0.0	0.0		x	Total	4.55	r	11238037.24	3814169.05	13.93
R6-5B			58.1	56.6	0.0	0.0		x	Total	4.55	r	11238038.29	3814157.89	13.77
R6-6B			45.8	42.0	0.0	0.0		x	Total	4.55	r	11238050.67	3814151.80	13.62
R1-1B			60.8	59.2	0.0	0.0		x	Total	4.55	r	11237833.27	3813996.54	11.88
R1-2B			63.0	60.4	0.0	0.0		x	Total	4.55	r	11237824.45	3813983.73	11.96
R1-3B			59.0	42.8	0.0	0.0		x	Total	4.55	r	11237833.27	3813973.23	12.10
R1-4B			55.5	42.4	0.0	0.0		x	Total	4.55	r	11237867.71	3813948.03	12.05
R1-5B			44.7	44.0	0.0	0.0		x	Total	4.55	r	11237883.04	3813953.70	11.93

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R1-6B			60.0	59.2	0.0	0.0		x	Total	4.55	r	11237889.97	3813979.95	11.86
R1-7B			60.5	59.5	0.0	0.0		x	Total	4.55	r	11237880.10	3813982.05	11.87
R1-8B			60.4	59.6	0.0	0.0		x	Total	4.55	r	11237872.75	3813973.02	11.94
R1-9B			60.9	59.9	0.0	0.0		x	Total	4.55	r	11237860.99	3813977.22	11.95
R1-10B			61.3	60.2	0.0	0.0		x	Total	4.55	r	11237843.77	3813990.45	11.93

Gebietsausweisungen

Name	M.	ID	Type	Persons
				(1/km²)

Hindernisse

Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			
			left	right		horz.	vert.	Begin		End	
					(m)	(m)	(m)	(m)		(m)	

Häuser

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		3.65	r
			x	0		3.65	r
			x	0		6.70	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		9.75	r

Bewuchs

Name	M.	ID	Height
			(m)

Bebauung

Name	M.	ID	Type	Attenuation	B	m	Height
				dB/100m	%	1/m	(m)

Geometriedaten

Geometrie Linienquellen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Flächenquellen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Parkplätze

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Straßen

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		
Los Carneros Road					11237697.29	3813908.86	7.62	7.60		
					11237759.07	3813961.83	10.67	10.70		
					11237782.99	3813989.66	10.67	11.00		
					11237808.40	3814029.18	12.50	12.50		
					11237829.81	3814079.44	12.80	14.00		
					11237845.52	3814131.11	14.33	16.00		
					11237849.30	3814230.44	14.94	18.50		
					11237851.61	3814289.45	16.76	21.30		
					11237854.07	3814329.87	18.29	21.50		
					11237857.43	3814385.23	18.29	18.29		
					11237861.66	3814452.97	16.46	16.46		
US 101 SB Onramp					11237862.91	3814329.11	14.33	21.50		
					11237917.30	3814334.68	14.63	19.00		
					11237998.36	3814343.08	14.63	15.80		
					11238188.34	3814363.72	10.36	12.20		
					11238396.35	3814383.05	9.75	10.40		
US 101 SB Offramp					11237577.38	3814297.86	12.19	12.19		
					11237682.81	3814309.20	14.33	14.33		
					11237760.93	3814317.60	14.33	18.00		
					11237844.93	3814327.68	14.00	21.50		
US 101 SB					11237580.17	3814319.88	12.80	12.80		
					11237676.48	3814338.40	12.50	12.50		
					11237752.15	3814353.33	12.19	12.19		
					11237789.19	3814359.46	12.19	12.19		
					11237847.26	3814365.39	12.50	12.50		
US 101 SB					11237865.59	3814369.12	12.50	12.50		
					11237906.40	3814372.39	11.28	11.28		
					11237997.12	3814376.59	10.97	10.97		
					11238183.92	3814379.77	10.97	10.97		
					11238395.93	3814392.44	10.36	10.36		
US 101 NB					11238394.07	3814413.64	9.14	9.14		
					11238181.55	3814403.56	9.75	9.75		
					11237995.91	3814396.84	11.28	11.28		
					11237901.83	3814389.28	10.67	10.67		
					11237866.49	3814386.68	12.50	12.50		
US 101 NB					11237847.87	3814383.91	12.50	12.50		
					11237786.75	3814375.84	12.19	12.19		
					11237748.95	3814369.96	12.19	12.19		
					11237674.19	3814356.52	13.11	13.11		
					11237577.59	3814337.20	12.50	12.50		

Geometrie Schienen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)
UPRR	12.50	a	12.50	a	11237570.03	3814262.43	12.50	1.25
					11237838.85	3814285.11	12.50	11.18
UPRR	12.50	a	8.53	a	11237861.86	3814287.47	12.50	11.58
					11238395.28	3814332.85	8.53	0.89

Geometrie Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			Coordinates			
			left	right		horz.	vert.	Begin		End	x	y	z	Ground
					(m)	(m)	(m)	(m)		(m)	(m)	(m)	(m)	(m)
											11237881.18	3814251.51	15.51	13.10
											11237882.02	3814269.67	14.31	11.90
											11237895.41	3814270.84	14.01	11.60
											11237911.06	3814272.16	13.41	11.00
											11237945.61	3814275.47	13.41	11.00
											11237961.46	3814277.18	13.11	10.70
											11238006.41	3814281.33	12.91	10.50
											11238074.37	3814287.71	12.51	10.10
											11238128.78	3814292.54	11.56	9.15
											11238169.64	3814296.43	10.95	8.54
											11238187.40	3814297.69	11.56	9.15
											11237881.09	3814251.78	14.93	13.10
											11237881.20	3814249.85	14.93	13.10
											11237880.31	3814214.13	14.93	13.10
											11237879.47	3814200.69	15.23	13.40
											11237878.61	3814185.47	15.53	13.70
											11237876.44	3814158.13	14.63	12.80
											11237871.49	3814129.70	15.23	13.40
											11237862.61	3814092.28	16.70	14.90
											11237859.87	3814081.36	15.83	14.00
											11237854.83	3814065.92	15.53	13.70
											11237846.22	3814043.24	14.13	12.30
											11237832.15	3814014.88	13.73	11.90
											11237818.29	3813991.15	12.63	10.80
											11237814.77	3813985.80	12.63	10.80
											11237811.44	3813980.79	12.63	10.80

Geometrie Häuser

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates				
						Begin		x	y	z	Ground	
						(m)		(m)	(m)	(m)	(m)	
			x	0		3.65	r	11238188.92	3814297.40	12.80	9.15	
								11238194.21	3814297.14	12.80	9.21	
								11238193.42	3814235.75	12.80	8.41	
								11238220.94	3814234.69	12.80	8.50	
								11238220.67	3814227.01	12.80	8.34	
								11238187.86	3814229.66	12.80	8.27	
								11238189.18	3814297.40	12.80	9.15	
			x	0		3.65	r	11238198.18	3814176.74	11.11	7.46	
								11238200.30	3814224.10	11.11	8.31	
								11238237.34	3814223.31	11.11	8.24	
								11238236.55	3814196.05	11.11	7.69	
								11238223.32	3814196.32	11.11	7.71	
								11238222.79	3814175.68	11.11	7.29	
			x	0		6.70	r	11237903.99	3814215.91	18.27	11.57	
								11237901.32	3814243.25	18.27	11.50	
								11237905.31	3814243.57	18.27	11.46	
								11237905.26	3814244.72	18.27	11.46	
								11237909.41	3814244.98	18.27	11.42	
								11237909.83	3814239.79	18.27	11.40	
								11237911.82	3814239.94	18.27	11.38	
								11237911.77	3814242.25	18.27	11.39	
								11237923.27	3814243.15	18.27	11.27	
								11237923.43	3814240.99	18.27	11.26	
								11237927.52	3814241.41	18.27	11.22	
								11237927.31	3814243.51	18.27	11.23	
								11237939.07	3814244.68	18.27	11.11	
								11237939.22	3814242.53	18.27	11.10	
								11237941.17	3814242.68	18.27	11.08	
								11237940.69	3814247.83	18.27	11.10	
								11237944.63	3814248.15	18.27	11.05	
								11237944.74	3814246.83	18.27	11.05	

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237948.73	3814247.15	18.27	11.01
								11237951.25	3814219.58	18.27	11.00
								11237947.26	3814219.27	18.27	11.00
								11237947.34	3814218.14	18.27	11.00
								11237943.38	3814217.89	18.27	11.00
								11237942.88	3814222.85	18.27	11.01
								11237941.01	3814222.81	18.27	11.03
								11237941.13	3814220.39	18.27	11.03
								11237913.61	3814218.28	18.27	11.40
								11237913.48	3814220.39	18.27	11.37
								11237911.36	3814220.19	18.27	11.41
								11237911.89	3814215.23	18.27	11.47
								11237907.92	3814214.84	18.27	11.53
								11237907.79	3814215.89	18.27	11.52
								11237903.82	3814215.50	18.27	11.57
			x	0		6.70	r	11237960.36	3814248.60	17.64	10.94
								11237964.18	3814248.92	17.64	10.94
								11237964.17	3814249.98	17.64	10.92
								11237968.27	3814250.40	17.64	10.92
								11237968.69	3814245.25	17.64	10.97
								11237970.58	3814245.46	17.64	10.96
								11237970.37	3814247.66	17.64	10.96
								11237982.13	3814248.71	17.64	10.93
								11237982.45	3814246.30	17.64	10.93
								11237986.44	3814246.72	17.64	10.93
								11237986.23	3814249.03	17.64	10.91
								11237997.99	3814249.98	17.64	10.87
								11237998.10	3814247.77	17.64	10.91
								11237999.99	3814247.98	17.64	10.88
								11237999.57	3814253.13	17.64	10.80
								11238004.30	3814253.65	17.64	10.75
								11238004.33	3814252.58	17.64	10.75
								11238007.69	3814252.90	17.64	10.71
								11238010.07	3814225.08	17.64	11.27
								11238006.19	3814224.87	17.64	11.24
								11238006.29	3814223.72	17.64	11.26
								11238002.14	3814223.44	17.64	11.26
								11238001.77	3814228.23	17.64	11.21
								11237999.88	3814228.13	17.64	11.20
								11238000.02	3814226.06	17.64	11.22
								11237972.62	3814223.61	17.64	11.03
								11237972.36	3814225.92	17.64	11.01
								11237970.47	3814225.82	17.64	10.99
								11237971.00	3814220.46	17.64	11.05
								11237967.11	3814219.93	17.64	11.02
								11237966.80	3814221.40	17.64	11.00
								11237962.80	3814220.88	17.64	11.00
			x	0		9.75	r	11238034.68	3814235.95	20.20	10.45
								11238034.15	3814241.31	20.20	10.48
								11238035.41	3814241.31	20.20	10.45
								11238034.89	3814244.67	20.20	10.46
								11238036.99	3814244.88	20.20	10.42
								11238036.78	3814247.40	20.20	10.42
								11238034.26	3814247.29	20.20	10.46
								11238034.26	3814248.66	20.20	10.45
								11238036.57	3814248.97	20.20	10.42
								11238036.04	3814253.91	20.20	10.43
								11238037.51	3814254.12	20.20	10.40
								11238037.30	3814256.75	20.20	10.40
								11238046.44	3814257.59	20.20	10.23
								11238046.65	3814255.28	20.20	10.23
								11238048.96	3814255.49	20.20	10.18
								11238048.86	3814257.80	20.20	10.18

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238060.52	3814258.85	20.20	9.97
								11238060.83	3814256.64	20.20	9.96
								11238065.56	3814257.06	20.20	9.87
								11238065.45	3814257.80	20.20	9.88
								11238069.44	3814258.11	20.20	9.78
								11238069.23	3814258.85	20.20	9.79
								11238072.65	3814259.11	20.20	9.71
								11238072.49	3814260.21	20.20	9.72
								11238081.66	3814261.05	20.20	9.43
								11238081.66	3814260.05	20.20	9.42
								11238084.75	3814260.46	20.20	9.32
								11238085.16	3814256.30	20.20	9.30
								11238090.42	3814257.05	20.20	9.13
								11238089.92	3814261.88	20.20	9.16
								11238096.58	3814262.38	20.20	8.94
								11238096.75	3814259.05	20.20	8.93
								11238100.34	3814259.38	20.20	8.84
								11238101.09	3814253.71	20.20	8.84
								11238099.67	3814253.54	20.20	8.84
								11238099.92	3814250.54	20.20	8.84
								11238098.84	3814250.54	20.20	8.84
								11238099.00	3814247.71	20.20	8.84
								11238101.42	3814247.96	20.20	8.84
								11238101.25	3814246.21	20.20	8.84
								11238098.84	3814246.04	20.20	8.84
								11238099.25	3814241.12	20.20	8.84
								11238098.42	3814241.12	20.20	8.84
								11238098.50	3814238.70	20.20	8.84
								11238090.33	3814237.95	20.20	9.05
								11238090.33	3814238.70	20.20	9.05
								11238087.16	3814238.54	20.20	9.13
								11238087.33	3814237.37	20.20	9.12
								11238078.16	3814236.45	20.20	9.35
								11238077.99	3814237.37	20.20	9.36
								11238074.66	3814237.12	20.20	9.45
								11238074.74	3814236.04	20.20	9.44
								11238069.91	3814235.79	20.20	9.56
								11238069.82	3814236.79	20.20	9.57
								11238063.74	3814236.12	20.20	9.73
								11238063.74	3814235.16	20.20	9.72
								11238054.52	3814234.22	20.20	9.95
								11238054.48	3814235.37	20.20	9.96
								11238045.56	3814234.62	20.20	10.19
								11238045.56	3814233.62	20.20	10.18
								11238038.48	3814233.12	20.20	10.36
								11238038.14	3814236.12	20.20	10.38
			x	0		9.75	r	11238106.23	3814266.67	18.61	8.86
								11238109.59	3814266.88	18.61	8.88
								11238109.38	3814269.82	18.61	8.89
								11238116.31	3814270.66	18.61	8.90
								11238117.26	3814265.51	18.61	8.88
								11238122.10	3814265.85	18.61	8.84
								11238121.84	3814270.15	18.61	8.85
								11238124.75	3814270.28	18.61	8.83
								11238124.82	3814271.34	18.61	8.83
								11238134.15	3814272.07	18.61	8.76
								11238134.21	3814270.94	18.61	8.75
								11238137.45	3814271.34	18.61	8.73
								11238137.19	3814272.40	18.61	8.73
								11238141.94	3814272.82	18.61	8.69
								11238141.94	3814271.82	18.61	8.69
								11238148.11	3814272.57	18.61	8.64
								11238148.28	3814273.48	18.61	8.64

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11238152.86	3814273.98	18.61	8.61
							11238152.95	3814273.07	18.61	8.60
							11238160.89	3814273.86	18.61	8.58
							11238161.15	3814270.95	18.61	8.61
							11238162.54	3814271.08	18.61	8.61
							11238162.81	3814266.25	18.61	8.66
							11238165.25	3814266.45	18.61	8.66
							11238165.32	3814264.80	18.61	8.68
							11238162.87	3814264.66	18.61	8.68
							11238163.14	3814262.15	18.61	8.70
							11238166.25	3814262.55	18.61	8.71
							11238166.31	3814260.89	18.61	8.72
							11238164.13	3814260.69	18.61	8.72
							11238164.33	3814258.31	18.61	8.75
							11238166.64	3814258.51	18.61	8.75
							11238167.64	3814247.33	18.61	8.82
							11238167.64	3814246.00	18.61	8.81
							11238163.72	3814245.67	18.61	8.81
							11238163.89	3814241.75	18.61	8.78
							11238164.78	3814241.78	18.61	8.78
							11238165.04	3814238.54	18.61	8.76
							11238166.23	3814238.71	18.61	8.76
							11238166.30	3814237.48	18.61	8.75
							11238163.76	3814237.28	18.61	8.75
							11238164.02	3814234.21	18.61	8.72
							11238166.47	3814234.47	18.61	8.72
							11238166.66	3814232.95	18.61	8.71
							11238163.36	3814232.75	18.61	8.71
							11238163.42	3814229.77	18.61	8.69
							11238164.61	3814229.77	18.61	8.69
							11238164.75	3814227.19	18.61	8.67
							11238167.00	3814227.39	18.61	8.67
							11238167.59	3814220.78	18.61	8.66
							11238163.95	3814220.38	18.61	8.62
							11238164.27	3814217.23	18.61	8.59
							11238156.28	3814216.81	18.61	8.60
							11238156.18	3814215.44	18.61	8.59
							11238151.56	3814214.92	18.61	8.62
							11238151.45	3814216.18	18.61	8.62
							11238145.15	3814215.65	18.61	8.65
							11238145.25	3814214.60	18.61	8.65
							11238136.01	3814213.87	18.61	8.71
							11238136.01	3814214.60	18.61	8.71
							11238132.86	3814214.50	18.61	8.73
							11238132.54	3814218.38	18.61	8.73
							11238126.87	3814218.07	18.61	8.77
							11238127.40	3814213.03	18.61	8.78
							11238120.78	3814212.50	18.61	8.82
							11238120.58	3814215.48	18.61	8.81
							11238117.10	3814215.13	18.61	8.84
							11238116.49	3814220.84	18.61	8.83
							11238117.73	3814220.90	18.61	8.82
							11238117.52	3814223.95	18.61	8.82
							11238118.78	3814224.05	18.61	8.81
							11238118.50	3814226.50	18.61	8.81
							11238116.47	3814226.37	18.61	8.82
							11238116.05	3814232.93	18.61	8.82
							11238119.15	3814233.30	18.61	8.80
							11238118.89	3814236.34	18.61	8.81
							11238126.87	3814236.97	18.61	8.80
							11238127.06	3814235.74	18.61	8.79
							11238130.34	3814236.03	18.61	8.79
							11238130.23	3814237.29	18.61	8.80

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238135.07	3814237.81	18.61	8.79
								11238135.16	3814236.77	18.61	8.79
								11238137.87	3814236.95	18.61	8.78
								11238137.94	3814238.01	18.61	8.79
								11238142.84	3814238.34	18.61	8.79
								11238142.93	3814236.78	18.61	8.77
								11238145.70	3814237.04	18.61	8.77
								11238145.57	3814238.45	18.61	8.78
								11238151.09	3814238.63	18.61	8.78
								11238151.37	3814235.03	18.61	8.75
								11238154.39	3814235.19	18.61	8.75
								11238153.66	3814241.91	18.61	8.80
								11238151.03	3814241.70	18.61	8.80
								11238150.79	3814244.75	18.61	8.82
								11238152.42	3814244.85	18.61	8.82
								11238152.29	3814247.48	18.61	8.84
								11238154.60	3814247.79	18.61	8.84
								11238153.93	3814254.00	18.61	8.77
								11238151.03	3814253.68	18.61	8.77
								11238151.24	3814250.00	18.61	8.81
								11238146.30	3814249.58	18.61	8.80
								11238146.24	3814250.82	18.61	8.79
								11238142.93	3814250.81	18.61	8.78
								11238143.05	3814248.84	18.61	8.80
								11238138.53	3814248.42	18.61	8.80
								11238138.53	3814249.37	18.61	8.79
								11238131.60	3814248.74	18.61	8.78
								11238131.49	3814247.79	18.61	8.79
								11238122.57	3814247.06	18.61	8.78
								11238122.57	3814247.79	18.61	8.78
								11238119.62	3814247.69	18.61	8.81
								11238119.83	3814246.43	18.61	8.80
								11238111.96	3814245.80	18.61	8.85
								11238111.75	3814248.53	18.61	8.86
								11238110.17	3814248.63	18.61	8.85
								11238109.75	3814253.57	18.61	8.86
								11238107.44	3814253.47	18.61	8.85
								11238107.23	3814254.94	18.61	8.85
								11238109.65	3814255.15	18.61	8.86
								11238109.44	3814257.67	18.61	8.87
								11238108.17	3814257.77	18.61	8.86
								11238108.17	3814260.61	18.61	8.86
								11238106.70	3814260.61	18.61	8.85
			x	0		4.60	r	11238097.36	3814231.78	13.44	8.84
								11238106.36	3814232.57	13.44	8.84
								11238107.15	3814224.83	13.44	8.84
								11238110.06	3814225.16	13.44	8.84
								11238110.59	3814216.69	13.44	8.84
								11238107.68	3814216.44	13.44	8.84
								11238108.21	3814210.54	13.44	8.84
								11238104.31	3814210.14	13.44	8.84
								11238104.24	3814211.66	13.44	8.84
								11238100.20	3814211.26	13.44	8.84
								11238099.94	3814213.25	13.44	8.84
								11238096.56	3814212.92	13.44	8.84
								11238097.03	3814209.74	13.44	8.84
								11238088.95	3814208.88	13.44	8.87
								11238088.23	3814214.70	13.44	8.86
								11238080.15	3814214.17	13.44	9.07
								11238079.56	3814222.05	13.44	8.98
								11238098.22	3814223.90	13.44	8.84
			x	0		6.70	r	11237905.46	3814205.38	18.34	11.64
								11237914.47	3814205.18	18.34	11.59

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237914.43	3814204.36	18.34	11.58
								11237923.12	3814203.86	18.34	11.53
								11237923.13	3814204.51	18.34	11.54
								11237932.31	3814203.84	18.34	11.50
								11237932.04	3814199.06	18.34	11.50
								11237932.94	3814199.01	18.34	11.50
								11237932.73	3814195.02	18.34	11.50
								11237927.74	3814195.33	18.34	11.50
								11237927.74	3814193.13	18.34	11.50
								11237929.89	3814192.97	18.34	11.50
								11237929.06	3814180.72	18.34	11.50
								11237926.72	3814181.05	18.34	11.50
								11237926.64	3814176.71	18.34	11.50
								11237928.76	3814176.52	18.34	11.50
								11237927.92	3814163.93	18.34	11.50
								11237925.76	3814164.09	18.34	11.50
								11237925.76	3814160.17	18.34	11.50
								11237927.84	3814159.92	18.34	11.50
								11237927.34	3814148.00	18.34	11.50
								11237925.09	3814148.17	18.34	11.50
								11237924.92	3814146.00	18.34	11.50
								11237929.92	3814145.67	18.34	11.50
								11237929.63	3814141.37	18.34	11.50
								11237928.38	3814141.37	18.34	11.50
								11237928.34	3814137.33	18.34	11.50
								11237921.63	3814137.66	18.34	11.51
								11237921.59	3814136.87	18.34	11.52
								11237919.59	3814137.00	18.34	11.52
								11237919.59	3814137.96	18.34	11.52
								11237910.66	3814138.46	18.34	11.55
								11237910.54	3814137.66	18.34	11.55
								11237908.40	3814137.96	18.34	11.56
								11237908.44	3814138.69	18.34	11.55
								11237901.91	3814139.04	18.34	11.58
								11237902.12	3814143.33	18.34	11.55
								11237901.04	3814143.33	18.34	11.56
								11237901.24	3814147.42	18.34	11.53
								11237906.23	3814147.16	18.34	11.52
								11237906.41	3814149.29	18.34	11.50
								11237904.08	3814149.46	18.34	11.51
								11237904.83	3814161.72	18.34	11.50
								11237907.25	3814161.55	18.34	11.50
								11237907.41	3814165.64	18.34	11.50
								11237905.16	3814165.89	18.34	11.50
								11237906.00	3814177.97	18.34	11.50
								11237907.83	3814177.81	18.34	11.50
								11237908.08	3814182.06	18.34	11.50
								11237906.08	3814182.48	18.34	11.50
								11237906.87	3814194.52	18.34	11.52
								11237909.12	3814194.26	18.34	11.50
								11237909.19	3814196.57	18.34	11.53
								11237904.19	3814196.84	18.34	11.55
								11237904.45	3814201.12	18.34	11.60
								11237905.35	3814201.07	18.34	11.60
			x	0		9.75	r	11238039.03	3814154.34	18.89	9.14
								11238038.54	3814160.90	18.89	9.27
								11238040.69	3814161.10	18.89	9.28
								11238040.44	3814163.68	18.89	9.32
								11238039.44	3814163.68	18.89	9.31
								11238039.28	3814166.27	18.89	9.35
								11238037.86	3814166.27	18.89	9.34
								11238037.61	3814172.19	18.89	9.43
								11238040.94	3814172.44	18.89	9.45

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238040.69	3814175.94	18.89	9.50
								11238047.20	3814176.27	18.89	9.55
								11238047.61	3814171.52	18.89	9.48
								11238052.53	3814171.94	18.89	9.48
								11238052.12	3814176.94	18.89	9.58
								11238057.20	3814177.35	18.89	9.59
								11238057.28	3814176.52	18.89	9.57
								11238063.29	3814176.94	18.89	9.55
								11238063.20	3814178.02	18.89	9.57
								11238067.87	3814178.52	18.89	9.55
								11238068.29	3814176.06	18.89	9.50
								11238073.42	3814176.44	18.89	9.48
								11238073.29	3814177.35	18.89	9.50
								11238077.13	3814177.77	18.89	9.45
								11238077.09	3814178.52	18.89	9.46
								11238080.05	3814178.77	18.89	9.42
								11238079.96	3814179.77	18.89	9.43
								11238089.63	3814180.36	18.89	9.31
								11238089.80	3814179.48	18.89	9.30
								11238092.47	3814179.69	18.89	9.27
								11238092.89	3814176.02	18.89	9.23
								11238098.22	3814176.52	18.89	9.16
								11238097.64	3814181.11	18.89	9.21
								11238104.47	3814181.69	18.89	9.13
								11238104.61	3814178.58	18.89	9.10
								11238108.51	3814178.91	18.89	9.06
								11238108.97	3814173.35	18.89	9.01
								11238107.44	3814173.24	18.89	9.01
								11238108.78	3814158.07	18.89	8.86
								11238042.87	3814151.71	18.89	9.08
								11238042.54	3814154.56	18.89	9.14
			x	0		9.75	r	11237904.07	3814078.49	17.44	7.69
								11237909.95	3814086.21	17.44	7.65
								11237912.05	3814084.16	17.44	7.65
								11237913.15	3814085.47	17.44	7.65
								11237912.42	3814086.21	17.44	7.67
								11237917.51	3814092.72	17.44	7.64
								11237924.66	3814086.79	17.44	7.57
								11237926.07	3814088.52	17.44	7.59
								11237928.99	3814085.74	17.44	7.58
								11237929.44	3814086.26	17.44	7.59
								11237937.05	3814079.91	17.44	7.58
								11237936.21	3814078.86	17.44	7.57
								11237938.31	3814077.12	17.44	7.57
								11237938.68	3814077.60	17.44	7.58
								11237942.20	3814074.81	17.44	7.57
								11237941.25	3814073.66	17.44	7.56
								11237946.14	3814069.72	17.44	7.56
								11237946.77	3814070.35	17.44	7.57
								11237948.66	3814068.56	17.44	7.56
								11237949.60	3814069.46	17.44	7.57
								11237957.06	3814063.26	17.44	7.58
								11237956.22	3814062.21	17.44	7.58
								11237958.47	3814060.48	17.44	7.58
								11237955.38	3814056.64	17.44	7.55
								11237956.54	3814055.59	17.44	7.55
								11237958.64	3814057.90	17.44	7.57
								11237965.99	3814052.23	17.44	7.57
								11237964.24	3814049.73	17.44	7.54
								11237965.57	3814048.56	17.44	7.53
								11237920.72	3813989.94	17.44	6.81
								11237912.53	3813997.09	17.44	6.88
								11237914.31	3813999.19	17.44	6.88

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237913.05	3814000.03	17.44	6.90
								11237911.37	3813997.82	17.44	6.90
								11237903.81	3814004.23	17.44	7.02
								11237905.59	3814006.44	17.44	7.02
								11237904.33	3814007.17	17.44	7.04
								11237907.69	3814011.16	17.44	7.03
								11237909.27	3814009.80	17.44	7.01
								11237910.95	3814012.00	17.44	7.01
								11237910.00	3814012.74	17.44	7.03
								11237911.90	3814014.94	17.44	7.03
								11237910.85	3814015.89	17.44	7.04
								11237917.15	3814023.66	17.44	7.06
								11237918.30	3814022.82	17.44	7.04
								11237921.67	3814027.13	17.44	7.09
								11237920.51	3814028.08	17.44	7.10
								11237926.39	3814036.27	17.44	7.22
								11237927.55	3814035.32	17.44	7.21
								11237930.70	3814039.32	17.44	7.27
								11237929.33	3814040.58	17.44	7.28
								11237932.51	3814044.55	17.44	7.34
								11237933.24	3814044.08	17.44	7.34
								11237935.69	3814047.39	17.44	7.39
								11237937.14	3814045.67	17.44	7.37
								11237938.00	3814046.60	17.44	7.39
								11237938.67	3814046.10	17.44	7.38
								11237941.09	3814049.27	17.44	7.43
								11237942.17	3814049.35	17.44	7.44
								11237941.92	3814050.18	17.44	7.44
								11237942.09	3814051.85	17.44	7.46
								11237939.17	3814053.60	17.44	7.46
								11237938.42	3814053.18	17.44	7.46
								11237935.42	3814055.77	17.44	7.45
								11237934.75	3814055.02	17.44	7.44
								11237934.08	3814055.52	17.44	7.44
								11237932.58	3814053.52	17.44	7.43
								11237929.00	3814056.35	17.44	7.42
								11237929.75	3814057.27	17.44	7.43
								11237927.91	3814058.69	17.44	7.43
								11237927.16	3814057.35	17.44	7.42
								11237919.33	3814063.94	17.44	7.42
								11237920.08	3814064.77	17.44	7.43
								11237916.03	3814068.10	17.44	7.43
								11237915.17	3814067.34	17.44	7.44
								11237914.16	3814068.44	17.44	7.47
								11237915.82	3814070.11	17.44	7.45
								11237914.10	3814071.65	17.44	7.50
								11237913.49	3814070.86	17.44	7.50
								11237909.55	3814074.43	17.44	7.61
								11237909.97	3814074.85	17.44	7.60
								11237907.93	3814076.62	17.44	7.66
								11237906.24	3814074.64	17.44	7.67
								11237905.33	3814075.52	17.44	7.69
								11237906.14	3814076.48	17.44	7.69
			x	0		4.60	r	11237881.78	3814008.79	11.88	7.28
								11237891.07	3814025.96	11.88	7.31
								11237893.17	3814024.65	11.88	7.28
								11237893.49	3814025.39	11.88	7.28
								11237895.54	3814024.13	11.88	7.25
								11237895.22	3814023.60	11.88	7.25
								11237897.43	3814022.39	11.88	7.22
								11237899.74	3814021.08	11.88	7.19
								11237895.70	3814013.52	11.88	7.17
								11237898.69	3814011.78	11.88	7.13

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237895.49	3814005.48	11.88	7.11
								11237897.74	3814004.22	11.88	7.08
								11237895.07	3813999.55	11.88	7.15
								11237893.17	3814000.70	11.88	7.17
								11237892.65	3813999.81	11.88	7.18
								11237891.39	3814000.91	11.88	7.19
								11237890.50	3813999.28	11.88	7.23
								11237887.71	3814001.23	11.88	7.25
								11237888.34	3814002.59	11.88	7.23
								11237886.92	3814003.38	11.88	7.24
								11237887.34	3814004.11	11.88	7.23
								11237883.93	3814006.11	11.88	7.27
								11237884.56	3814007.11	11.88	7.25
			x	0		9.75	r	11237824.66	3813980.79	17.23	7.48
								11237875.27	3813944.25	17.23	7.41
								11237897.74	3813973.02	17.23	7.33
								11237883.25	3813983.52	17.23	7.31
								11237871.49	3813968.61	17.23	7.42
								11237835.16	3813995.91	17.23	7.33

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Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237871.28	3814268.78	13.40
						11237882.03	3814269.78	11.90
						11237895.54	3814270.95	11.60
						11237910.79	3814272.20	11.00
						11237946.38	3814275.70	11.00
						11237960.87	3814277.35	10.70
						11238006.05	3814281.45	10.50
						11238074.42	3814287.97	10.10
						11238128.34	3814292.90	9.15
						11238169.52	3814296.90	8.54
						11238187.85	3814298.40	9.15
						11238186.80	3814204.20	7.93
						11237865.11	3814280.70	12.20
						11237919.09	3814284.91	11.00
						11238073.25	3814299.82	11.00
						11238250.89	3814315.71	10.10
						11237902.99	3814212.44	11.60
						11237901.21	3814224.35	11.50
						11237900.28	3814243.40	11.50
						11237902.00	3814246.57	11.50
						11237950.17	3814249.75	11.00
						11237953.34	3814243.13	11.00
						11237958.77	3814244.06	11.00
						11237960.35	3814251.21	10.90
						11237989.86	3814253.46	10.90
						11238007.73	3814255.18	10.70
						11238009.71	3814251.60	10.70
						11238012.09	3814224.48	11.30
						11238004.75	3814221.37	11.30
						11237962.54	3814218.13	11.00
						11237942.76	3814216.34	11.00
						11237905.17	3814212.56	11.60
						11238034.49	3814231.70	10.40
						11238032.99	3814240.04	10.50
						11238032.90	3814255.29	10.40
						11238037.07	3814258.71	10.40
						11238071.50	3814261.46	9.76
						11238099.75	3814264.05	8.84

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11238103.51	3814259.21	8.84
						11238102.92	3814241.21	8.84
						11238097.59	3814236.29	8.84
						11238036.24	3814231.12	10.40
						11238112.56	3814239.62	8.84
						11238108.46	3814246.89	8.84
						11238105.41	3814257.35	8.84
						11238103.30	3814270.71	8.84
						11238114.15	3814274.15	8.93
						11238162.18	3814277.99	8.54
						11238169.19	3814272.83	8.54
						11238172.37	3814250.73	8.84
						11238172.50	3814218.98	8.84
						11238164.30	3814210.64	8.54
						11238121.56	3814208.39	8.84
						11238114.94	3814217.25	8.84
						11238112.16	3814239.35	8.84
						11238112.72	3814207.99	8.84
						11238091.71	3814201.80	8.84
						11238077.95	3814210.62	9.15
						11238074.07	3814220.91	8.99
						11238085.10	3814231.21	8.84
						11238099.06	3814234.46	8.84
						11238035.65	3814154.34	9.15
						11238032.74	3814175.25	9.45
						11238059.21	3814185.97	9.76
						11238107.77	3814188.61	9.15
						11238122.06	3814164.66	9.15
						11238120.07	3814155.53	9.15
						11237903.76	3814209.71	11.70
						11237902.44	3814191.06	11.50
						11237901.25	3814153.21	11.50
						11237899.92	3814136.14	11.60
						11237930.89	3814133.89	11.50
						11237935.25	3814206.67	11.50
						11237933.93	3814132.97	11.50
						11237963.18	3814143.95	11.00
						11237993.61	3814171.60	9.45
						11238023.78	3814173.72	9.76
						11237898.20	3814133.45	11.00
						11237897.36	3814121.11	8.54
						11237893.03	3814100.94	7.62
						11237880.03	3814067.93	7.62
						11237861.35	3814016.74	7.62
						11237844.60	3814008.66	7.32
						11237824.93	3813996.32	7.32
						11237916.25	3814099.08	7.93
						11237901.43	3814082.14	7.62
						11237900.90	3814072.35	7.74
						11237912.78	3814050.56	7.32
						11237892.08	3814029.08	7.32
						11237877.91	3814010.91	7.32
						11237871.24	3813998.24	7.26
						11237854.43	3813994.25	7.32
						11237831.96	3813999.08	7.30
						11237821.24	3813984.16	7.32
						11237825.75	3813978.00	7.56
						11237860.61	3813946.91	7.56
						11237881.20	3813937.25	7.32
						11237900.52	3813973.37	7.32
						11237925.85	3813991.70	6.71
						11237971.28	3814054.17	7.62
						11237957.78	3814072.04	7.62

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237921.26	3814097.71	7.62
						11237984.06	3814104.64	11.30
						11238018.30	3814121.86	10.40
						11238056.65	3814140.87	8.84
						11238109.00	3814156.21	8.84

Geometrie Bruchkanten

Name	M.	ID	Coordinates	
			x	y
			(m)	(m)

Bericht (Cumltv plus Prj 3rd Floor Rcvrs_051514.cna)

Gruppentabelle Tag und Nacht

Name	Expression	R 7-1C		R 7-2C		R 7-3C		R 7-4C		R 7-5C		R 7-6C		R 7-7C		R 7-8C		R 7-9(	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	N

Source																			
Name	M.	ID	R 7-1C		R 7-2C		R 7-3C		R 7-4C		R 7-5C		R 7-6C		R 7-7C		R 7-8C		
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	
Los Carneros Road																	36.5		
US 101 SB Onramp													46.9		44.3		28.7		
US 101 SB Offramp																			
US 101 SB															23.3		22.8		
US 101 SB			64.1	-83.4	63.9	-83.6	62.6	-85.2	62.4	-85.3	59.5		57.3		53.0		37.5		
US 101 NB			52.0		51.2		55.6		55.3		56.8		53.3		51.1		35.7		
US 101 NB															21.1		21.8		
UPRR			49.8	49.8	50.2	50.2	50.7	50.7	51.2	51.2	51.3	51.3	39.4	39.4	40.8	40.8	39.8	39.8	
UPRR			71.0	71.0	71.2	71.2	71.6	71.6	71.6	71.6	68.4	68.4	62.2	62.2	56.8	56.8	49.1	49.1	

Schallquellen

Punktquellen

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night	
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)

Linienquellen

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Flächenquellen vertikal

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Correction			Sound Reduction		Attenuation	Oper
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)

Schienen

Name	M.	ID	Lm,E		Train Class	Add.Level				Vmax
			Day	Night		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0						
UPRR			78.0	78.0						

Zugklassen

Name	M.	ID	Lm,E		Train Class										Add.Level				Vmax
			Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)		Dfb	Dbr	Dbü	Dra	
			(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night	(dB)	(dB)	(dB)	(dB)	(km/h)
UPRR			85.0	85.0																
UPRR			78.0	78.0																

Name	Lm,E		Train Class									
	Day	Night	Type	p	Number of Trains			v	l	Dfz	Dae	Lm,E,i (dB)	
	(dBA)	(dBA)		(%)	Day	Evening	Night	(km/h)	(m)	(dB)	(dB)	Day	Night

Parkplätze

Name	M.	ID	Type	Lwa			Event Data						Penalty Type		Penalty Surface		A
				Day	Special	Night	Ref. Quantity	Number B	No. Spaces/RefQ	Events/h/RefQ			Kpa	Type	Kstro	Surface	
				(dBA)	(dBA)	(dBA)				Day	Special	Night	(dB)		(dB)		

Strassen

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	S
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Ds
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(km/h)	(km/h)		(d
Los Carneros Road			70.2	0.0	0.0			3333.0	0.0	0.0	5.0	0.0	0.0	72		RQ 20	
US 101 SB Onramp			66.2	0.0	0.0			1339.0	0.0	0.0	5.0	0.0	0.0	72		RQ 12	
US 101 SB Offramp			61.8	0.0	0.0			190.0	0.0	0.0	5.0	0.0	0.0	100		RQ 12	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 SB			77.0	0.0	0.0			4925.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	
US 101 NB			76.2	0.0	0.0			4099.0	0.0	0.0	9.0	0.0	0.0	105	105	RQ 16	

Ampeln

Name	M.	ID	Active			Height	Coordinates		
			Day	Evening	Night	Begin	X	Y	Z
						(m)	(m)	(m)	(m)

Immissionspunkte

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 7-1C			71.8	71.0	0.0	0.0		x	Total	7.60	r	11238158.88	3814274.45	16.17
R 7-2C			72.0	71.2	0.0	0.0		x	Total	7.60	r	11238145.19	3814273.08	16.27
R 7-3C			72.2	71.6	0.0	0.0		x	Total	7.60	r	11238128.68	3814272.48	16.40
R 7-4C			72.2	71.6	0.0	0.0		x	Total	7.60	r	11238111.97	3814270.98	16.51
R 7-5C			69.2	68.4	0.0	0.0		x	Total	7.60	r	11238105.86	3814263.69	16.45
R 7-6C			63.9	62.3	0.0	0.0		x	Total	7.60	r	11238107.53	3814258.72	16.46
R 7-7C			59.3	56.9	0.0	0.0		x	Total	7.60	r	11238109.36	3814250.46	16.45
R 7-8C			50.2	49.6	0.0	0.0		x	Total	7.60	r	11238117.34	3814245.69	16.42
R 7-9C			50.1	49.3	0.0	0.0		x	Total	7.60	r	11238129.68	3814247.19	16.39
R 7-10C			55.3	54.7	0.0	0.0		x	Total	7.60	r	11238139.98	3814238.42	16.39
R 7-11C			55.2	54.6	0.0	0.0		x	Total	7.60	r	11238132.71	3814238.00	16.40
R 7-12C			55.0	54.4	0.0	0.0		x	Total	7.60	r	11238122.29	3814237.03	16.41
R 7-13C			58.1	56.1	0.0	0.0		x	Total	7.60	r	11238115.68	3814231.37	16.43
R 7-14C			57.5	55.7	0.0	0.0		x	Total	7.60	r	11238117.37	3814222.06	16.42
R 7-15C			52.0	51.3	0.0	0.0		x	Total	7.60	r	11238124.18	3814211.84	16.40
R 7-16C			63.3	60.0	0.0	0.0		x	Total	7.60	r	11238167.78	3814224.98	16.27
R 7-17C			61.6	58.5	0.0	0.0		x	Total	7.60	r	11238165.37	3814240.73	16.37
R 7-18C			65.7	63.0	0.0	0.0		x	Total	7.60	r	11238167.76	3814253.05	16.41
R 7-19C			67.4	65.7	0.0	0.0		x	Total	7.60	r	11238163.26	3814267.75	16.25
R 8-1C			70.8	70.0	0.0	0.0		x	Total	7.60	r	11238095.94	3814262.98	16.56
R 8-2C			71.0	70.2	0.0	0.0		x	Total	7.60	r	11238091.05	3814262.56	16.72

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R 8-3C			70.8	70.1	0.0	0.0		x	Total	7.60	r	11238082.91	3814260.93	16.98
R 8-4C			71.0	70.2	0.0	0.0		x	Total	7.60	r	11238077.03	3814261.14	17.18
R 8-5C			70.9	70.0	0.0	0.0		x	Total	7.60	r	11238070.78	3814259.57	17.36
R 8-6C			70.5	69.6	0.0	0.0		x	Total	7.60	r	11238063.82	3814257.53	17.51
R 8-7C			71.0	70.2	0.0	0.0		x	Total	7.60	r	11238058.76	3814259.29	17.60
R 8-8C			71.1	70.3	0.0	0.0		x	Total	7.60	r	11238051.34	3814258.62	17.74
R 8-9C			71.0	70.3	0.0	0.0		x	Total	7.60	r	11238044.92	3814258.04	17.86
R 8-10C			71.1	70.3	0.0	0.0		x	Total	7.60	r	11238038.91	3814257.62	17.97
R 8-11C			69.2	68.3	0.0	0.0		x	Total	7.60	r	11238035.70	3814252.75	18.03
R 8-12C			60.2	58.7	0.0	0.0		x	Total	7.60	r	11238036.20	3814245.83	18.03
R 8-13C			65.5	64.1	0.0	0.0		x	Total	7.60	r	11238034.70	3814242.25	18.07
R 8-14C			65.4	63.7	0.0	0.0		x	Total	7.60	r	11238034.12	3814238.16	18.07
R 8-15C			53.5	52.7	0.0	0.0		x	Total	7.60	r	11238037.20	3814235.58	18.00
R 8-16C			49.9	48.5	0.0	0.0		x	Total	7.60	r	11238041.79	3814233.08	17.87
R 8-17C			49.4	48.3	0.0	0.0		x	Total	7.60	r	11238050.79	3814234.66	17.65
R 8-18C			48.3	47.0	0.0	0.0		x	Total	7.60	r	11238073.05	3814235.66	17.08
R 8-19C			48.8	47.0	0.0	0.0		x	Total	7.60	r	11238092.32	3814237.58	16.59
R 8-20C			49.3	47.2	0.0	0.0		x	Total	7.60	r	11238097.48	3814238.25	16.45
R 8-21C			51.5	50.6	0.0	0.0		x	Total	7.60	r	11238099.57	3814242.92	16.44
R 8-22C			51.6	50.7	0.0	0.0		x	Total	7.60	r	11238099.32	3814249.25	16.44
R 8-23C			50.7	50.0	0.0	0.0		x	Total	7.60	r	11238100.15	3814252.50	16.44
R 8-24C			66.2	64.7	0.0	0.0		x	Total	7.60	r	11238100.82	3814257.51	16.44
R2-1C			62.7	61.2	0.0	0.0		x	Total	7.60	r	11237916.87	3814093.05	15.24
R2-2C			62.6	61.3	0.0	0.0		x	Total	7.60	r	11237911.83	3814086.96	15.26
R2-3C			62.8	61.4	0.0	0.0		x	Total	7.60	r	11237907.84	3814085.07	15.25
R2-4C			62.9	61.5	0.0	0.0		x	Total	7.60	r	11237903.85	3814080.45	15.27
R2-5C			61.2	59.5	0.0	0.0		x	Total	7.60	r	11237905.11	3814076.46	15.30
R2-6C			55.2	51.4	0.0	0.0		x	Total	7.60	r	11237911.41	3814071.62	15.15
R2-7C			55.4	52.0	0.0	0.0		x	Total	7.60	r	11237917.71	3814065.53	15.02
R2-8C			56.9	54.5	0.0	0.0		x	Total	7.60	r	11237924.85	3814058.18	15.01
R2-9C			55.4	52.4	0.0	0.0		x	Total	7.60	r	11237931.15	3814054.19	15.02
R2-10C			53.0	48.7	0.0	0.0		x	Total	7.60	r	11237936.41	3814052.93	15.04
R2-11C			58.2	56.7	0.0	0.0		x	Total	7.60	r	11237933.89	3814046.84	14.97
R2-12C			59.9	58.6	0.0	0.0		x	Total	7.60	r	11237929.05	3814041.59	14.89
R2-13C			60.7	59.5	0.0	0.0		x	Total	7.60	r	11237922.96	3814033.40	14.77
R2-14C			61.0	59.8	0.0	0.0		x	Total	7.60	r	11237915.40	3814023.32	14.67
R2-15C			61.1	59.8	0.0	0.0		x	Total	7.60	r	11237910.36	3814016.60	14.66
R2-16C			61.1	59.8	0.0	0.0		x	Total	7.60	r	11237904.69	3814008.41	14.64
R2-17C			57.5	54.5	0.0	0.0		x	Total	7.60	r	11237905.53	3814001.90	14.58
R2-18C			56.0	51.9	0.0	0.0		x	Total	7.60	r	11237908.89	3813998.96	14.53
R2-19C			55.0	50.7	0.0	0.0		x	Total	7.60	r	11237914.35	3813994.34	14.48
R2-20C			54.2	49.0	0.0	0.0		x	Total	7.60	r	11237917.92	3813991.82	14.44
R2-21C			46.7	46.4	0.0	0.0		x	Total	7.60	r	11237925.48	3813995.60	14.35
R2-22C			47.0	46.7	0.0	0.0		x	Total	7.60	r	11237935.78	3814009.04	14.55
R2-23C			47.4	47.2	0.0	0.0		x	Total	7.60	r	11237947.96	3814024.79	14.78
R2-24C			48.1	47.8	0.0	0.0		x	Total	7.60	r	11237960.56	3814040.96	15.02
R2-25C			57.6	56.3	0.0	0.0		x	Total	7.60	r	11237962.45	3814056.29	15.18
R2-26C			60.1	58.8	0.0	0.0		x	Total	7.60	r	11237951.11	3814068.68	15.17
R2-27C			59.8	58.5	0.0	0.0		x	Total	7.60	r	11237956.15	3814064.69	15.18
R2-28C			59.5	58.5	0.0	0.0		x	Total	7.60	r	11237941.24	3814076.04	15.18
R2-29C			60.6	59.5	0.0	0.0		x	Total	7.60	r	11237935.57	3814081.92	15.19
R2-30C			61.9	60.6	0.0	0.0		x	Total	7.60	r	11237927.16	3814088.22	15.19
R6-1C			57.6	56.6	0.0	0.0		x	Total	7.60	r	11238102.76	3814182.07	16.76
R6-2C			57.6	56.6	0.0	0.0		x	Total	7.60	r	11238087.19	3814180.63	16.95
R6-3C			59.7	58.2	0.0	0.0		x	Total	7.60	r	11238054.90	3814177.76	17.20
R6-4C			60.0	58.4	0.0	0.0		x	Total	7.60	r	11238037.24	3814169.05	16.98
R6-5C			59.4	57.9	0.0	0.0		x	Total	7.60	r	11238038.29	3814157.89	16.82
R6-6C			48.8	46.3	0.0	0.0		x	Total	7.60	r	11238050.67	3814151.80	16.67
R1-1C			64.7	61.7	0.0	0.0		x	Total	7.60	r	11237833.27	3813996.54	14.93
R1-2C			64.5	61.4	0.0	0.0		x	Total	7.60	r	11237824.45	3813983.73	15.01
R1-3C			60.3	48.8	0.0	0.0		x	Total	7.60	r	11237833.27	3813973.23	15.15
R1-4C			56.6	48.8	0.0	0.0		x	Total	7.60	r	11237867.71	3813948.03	15.10
R1-5C			47.2	46.4	0.0	0.0		x	Total	7.60	r	11237883.04	3813953.70	14.98

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
R1-6C			60.7	59.6	0.0	0.0		x	Total	7.60	r	11237889.97	3813979.95	14.91
R1-7C			61.3	59.9	0.0	0.0		x	Total	7.60	r	11237880.10	3813982.05	14.92
R1-8C			61.3	59.9	0.0	0.0		x	Total	7.60	r	11237872.75	3813973.02	14.99
R1-9C			61.9	60.4	0.0	0.0		x	Total	7.60	r	11237860.99	3813977.22	15.00
R1-10C			63.8	61.3	0.0	0.0		x	Total	7.60	r	11237843.77	3813990.45	14.98

Gebietsausweisungen

Name	M.	ID	Type	Persons
				(1/km²)

Hindernisse

Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			
			left	right		horz.	vert.	Begin		End	
					(m)	(m)	(m)	(m)		(m)	

Häuser

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(m)	
			x	0		3.65	r
			x	0		3.65	r
			x	0		6.70	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		6.70	r
			x	0		9.75	r
			x	0		9.75	r
			x	0		4.60	r
			x	0		9.75	r

Bewuchs

Name	M.	ID	Height
			(m)

Bebauung

Name	M.	ID	Type	Attenuation	B	m	Height
				dB/100m	%	1/m	(m)

Geometriedaten

Geometrie Linienquellen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Flächenquellen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Parkplätze

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)

Geometrie Straßen

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(m)	(%)
	(m)		(m)		(m)	(m)	(m)	(m)		
Los Carneros Road					11237697.29	3813908.86	7.62	7.60		
					11237759.07	3813961.83	10.67	10.70		
					11237782.99	3813989.66	10.67	11.00		
					11237808.40	3814029.18	12.50	12.50		
					11237829.81	3814079.44	12.80	14.00		
					11237845.52	3814131.11	14.33	16.00		
					11237849.30	3814230.44	14.94	18.50		
					11237851.61	3814289.45	16.76	21.30		
					11237854.07	3814329.87	18.29	21.50		
					11237857.43	3814385.23	18.29	18.29		
					11237861.66	3814452.97	16.46	16.46		
US 101 SB Onramp					11237862.91	3814329.11	14.33	21.50		
					11237917.30	3814334.68	14.63	19.00		
					11237998.36	3814343.08	14.63	15.80		
					11238188.34	3814363.72	10.36	12.20		
					11238396.35	3814383.05	9.75	10.40		
US 101 SB Offramp					11237577.38	3814297.86	12.19	12.19		
					11237682.81	3814309.20	14.33	14.33		
					11237760.93	3814317.60	14.33	18.00		
					11237844.93	3814327.68	14.00	21.50		
US 101 SB					11237580.17	3814319.88	12.80	12.80		
					11237676.48	3814338.40	12.50	12.50		
					11237752.15	3814353.33	12.19	12.19		
					11237789.19	3814359.46	12.19	12.19		
					11237847.26	3814365.39	12.50	12.50		
US 101 SB					11237865.59	3814369.12	12.50	12.50		
					11237906.40	3814372.39	11.28	11.28		
					11237997.12	3814376.59	10.97	10.97		
					11238183.92	3814379.77	10.97	10.97		
					11238395.93	3814392.44	10.36	10.36		
US 101 NB					11238394.07	3814413.64	9.14	9.14		
					11238181.55	3814403.56	9.75	9.75		
					11237995.91	3814396.84	11.28	11.28		
					11237901.83	3814389.28	10.67	10.67		
					11237866.49	3814386.68	12.50	12.50		
US 101 NB					11237847.87	3814383.91	12.50	12.50		
					11237786.75	3814375.84	12.19	12.19		
					11237748.95	3814369.96	12.19	12.19		
					11237674.19	3814356.52	13.11	13.11		
					11237577.59	3814337.20	12.50	12.50		

Geometrie Schienen

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(m)		(m)		(m)	(m)	(m)	(m)
UPRR	12.50	a	12.50	a	11237570.03	3814262.43	12.50	1.25
					11237838.85	3814285.11	12.50	11.18
UPRR	12.50	a	8.53	a	11237861.86	3814287.47	12.50	11.58
					11238395.28	3814332.85	8.53	0.89

Geometrie Schirme

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			Coordinates			
			left	right		horz.	vert.	Begin		End	x	y	z	Ground
					(m)	(m)	(m)	(m)		(m)	(m)	(m)	(m)	(m)
											11237881.18	3814251.51	15.51	13.10
											11237882.02	3814269.67	14.31	11.90
											11237895.41	3814270.84	14.01	11.60
											11237911.06	3814272.16	13.41	11.00
											11237945.61	3814275.47	13.41	11.00
											11237961.46	3814277.18	13.11	10.70
											11238006.41	3814281.33	12.91	10.50
											11238074.37	3814287.71	12.51	10.10
											11238128.78	3814292.54	11.56	9.15
											11238169.64	3814296.43	10.95	8.54
											11238187.40	3814297.69	11.56	9.15
											11237881.05	3814251.87	14.93	13.10
											11237880.84	3814250.05	14.93	13.10
											11237880.31	3814214.13	14.93	13.10
											11237879.47	3814200.69	15.23	13.40
											11237878.61	3814185.47	15.53	13.70
											11237876.44	3814158.13	14.63	12.80
											11237872.29	3814129.17	14.23	13.40
											11237862.61	3814092.28	16.70	14.90
											11237859.87	3814081.36	15.83	14.00
											11237854.83	3814065.92	15.53	13.70
											11237846.22	3814043.24	14.13	12.30
											11237832.15	3814014.88	13.73	11.90
											11237818.29	3813991.15	12.63	10.80
											11237815.50	3813986.47	12.63	10.80
											11237811.99	3813980.80	12.63	10.80

Geometrie Häuser

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
			x	0		3.65	r	11238188.92	3814297.40	12.80	9.15
								11238194.21	3814297.14	12.80	9.21
								11238193.42	3814235.75	12.80	8.41
								11238220.94	3814234.69	12.80	8.50
								11238220.67	3814227.01	12.80	8.34
								11238187.86	3814229.66	12.80	8.27
								11238189.18	3814297.40	12.80	9.15
			x	0		3.65	r	11238198.18	3814176.74	11.11	7.46
								11238200.30	3814224.10	11.11	8.31
								11238237.34	3814223.31	11.11	8.24
								11238236.55	3814196.05	11.11	7.69
								11238223.32	3814196.32	11.11	7.71
								11238222.79	3814175.68	11.11	7.29
			x	0		6.70	r	11237903.99	3814215.91	18.27	11.57
								11237901.32	3814243.25	18.27	11.50
								11237905.31	3814243.57	18.27	11.46
								11237905.26	3814244.72	18.27	11.46
								11237909.41	3814244.98	18.27	11.42
								11237909.83	3814239.79	18.27	11.40
								11237911.82	3814239.94	18.27	11.38
								11237911.77	3814242.25	18.27	11.39
								11237923.27	3814243.15	18.27	11.27
								11237923.43	3814240.99	18.27	11.26
								11237927.52	3814241.41	18.27	11.22
								11237927.31	3814243.51	18.27	11.23
								11237939.07	3814244.68	18.27	11.11
								11237939.22	3814242.53	18.27	11.10
								11237941.17	3814242.68	18.27	11.08
								11237940.69	3814247.83	18.27	11.10
								11237944.63	3814248.15	18.27	11.05
								11237944.74	3814246.83	18.27	11.05

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237948.73	3814247.15	18.27	11.01
								11237951.25	3814219.58	18.27	11.00
								11237947.26	3814219.27	18.27	11.00
								11237947.34	3814218.14	18.27	11.00
								11237943.38	3814217.89	18.27	11.00
								11237942.88	3814222.85	18.27	11.01
								11237941.01	3814222.81	18.27	11.03
								11237941.13	3814220.39	18.27	11.03
								11237913.61	3814218.28	18.27	11.40
								11237913.48	3814220.39	18.27	11.37
								11237911.36	3814220.19	18.27	11.41
								11237911.89	3814215.23	18.27	11.47
								11237907.92	3814214.84	18.27	11.53
								11237907.79	3814215.89	18.27	11.52
								11237903.82	3814215.50	18.27	11.57
			x	0		6.70	r	11237960.36	3814248.60	17.64	10.94
								11237964.18	3814248.92	17.64	10.94
								11237964.17	3814249.98	17.64	10.92
								11237968.27	3814250.40	17.64	10.92
								11237968.69	3814245.25	17.64	10.97
								11237970.58	3814245.46	17.64	10.96
								11237970.37	3814247.66	17.64	10.96
								11237982.13	3814248.71	17.64	10.93
								11237982.45	3814246.30	17.64	10.93
								11237986.44	3814246.72	17.64	10.93
								11237986.23	3814249.03	17.64	10.91
								11237997.99	3814249.98	17.64	10.87
								11237998.10	3814247.77	17.64	10.91
								11237999.99	3814247.98	17.64	10.88
								11237999.57	3814253.13	17.64	10.80
								11238004.30	3814253.65	17.64	10.75
								11238004.33	3814252.58	17.64	10.75
								11238007.69	3814252.90	17.64	10.71
								11238010.07	3814225.08	17.64	11.27
								11238006.19	3814224.87	17.64	11.24
								11238006.29	3814223.72	17.64	11.26
								11238002.14	3814223.44	17.64	11.26
								11238001.77	3814228.23	17.64	11.21
								11237999.88	3814228.13	17.64	11.20
								11238000.02	3814226.06	17.64	11.22
								11237972.62	3814223.61	17.64	11.03
								11237972.36	3814225.92	17.64	11.01
								11237970.47	3814225.82	17.64	10.99
								11237971.00	3814220.46	17.64	11.05
								11237967.11	3814219.93	17.64	11.02
								11237966.80	3814221.40	17.64	11.00
								11237962.80	3814220.88	17.64	11.00
			x	0		9.75	r	11238034.68	3814235.95	20.20	10.45
								11238034.15	3814241.31	20.20	10.48
								11238035.41	3814241.31	20.20	10.45
								11238034.89	3814244.67	20.20	10.46
								11238036.99	3814244.88	20.20	10.42
								11238036.78	3814247.40	20.20	10.42
								11238034.26	3814247.29	20.20	10.46
								11238034.26	3814248.66	20.20	10.45
								11238036.57	3814248.97	20.20	10.42
								11238036.04	3814253.91	20.20	10.43
								11238037.51	3814254.12	20.20	10.40
								11238037.30	3814256.75	20.20	10.40
								11238046.44	3814257.59	20.20	10.23
								11238046.65	3814255.28	20.20	10.23
								11238048.96	3814255.49	20.20	10.18
								11238048.86	3814257.80	20.20	10.18

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238060.52	3814258.85	20.20	9.97
								11238060.83	3814256.64	20.20	9.96
								11238065.56	3814257.06	20.20	9.87
								11238065.45	3814257.80	20.20	9.88
								11238069.44	3814258.11	20.20	9.78
								11238069.23	3814258.85	20.20	9.79
								11238072.65	3814259.11	20.20	9.71
								11238072.49	3814260.21	20.20	9.72
								11238081.66	3814261.05	20.20	9.43
								11238081.66	3814260.05	20.20	9.42
								11238084.75	3814260.46	20.20	9.32
								11238085.16	3814256.30	20.20	9.30
								11238090.42	3814257.05	20.20	9.13
								11238089.92	3814261.88	20.20	9.16
								11238096.58	3814262.38	20.20	8.94
								11238096.75	3814259.05	20.20	8.93
								11238100.34	3814259.38	20.20	8.84
								11238101.09	3814253.71	20.20	8.84
								11238099.67	3814253.54	20.20	8.84
								11238099.92	3814250.54	20.20	8.84
								11238098.84	3814250.54	20.20	8.84
								11238099.00	3814247.71	20.20	8.84
								11238101.42	3814247.96	20.20	8.84
								11238101.25	3814246.21	20.20	8.84
								11238098.84	3814246.04	20.20	8.84
								11238099.25	3814241.12	20.20	8.84
								11238098.42	3814241.12	20.20	8.84
								11238098.50	3814238.70	20.20	8.84
								11238090.33	3814237.95	20.20	9.05
								11238090.33	3814238.70	20.20	9.05
								11238087.16	3814238.54	20.20	9.13
								11238087.33	3814237.37	20.20	9.12
								11238078.16	3814236.45	20.20	9.35
								11238077.99	3814237.37	20.20	9.36
								11238074.66	3814237.12	20.20	9.45
								11238074.74	3814236.04	20.20	9.44
								11238069.91	3814235.79	20.20	9.56
								11238069.82	3814236.79	20.20	9.57
								11238063.74	3814236.12	20.20	9.73
								11238063.74	3814235.16	20.20	9.72
								11238054.52	3814234.22	20.20	9.95
								11238054.48	3814235.37	20.20	9.96
								11238045.56	3814234.62	20.20	10.19
								11238045.56	3814233.62	20.20	10.18
								11238038.48	3814233.12	20.20	10.36
								11238038.14	3814236.12	20.20	10.38
			x	0		9.75	r	11238106.23	3814266.67	18.61	8.86
								11238109.59	3814266.88	18.61	8.88
								11238109.38	3814269.82	18.61	8.89
								11238116.31	3814270.66	18.61	8.90
								11238117.26	3814265.51	18.61	8.88
								11238122.10	3814265.85	18.61	8.84
								11238121.84	3814270.15	18.61	8.85
								11238124.75	3814270.28	18.61	8.83
								11238124.82	3814271.34	18.61	8.83
								11238134.15	3814272.07	18.61	8.76
								11238134.21	3814270.94	18.61	8.75
								11238137.45	3814271.34	18.61	8.73
								11238137.19	3814272.40	18.61	8.73
								11238141.94	3814272.82	18.61	8.69
								11238141.94	3814271.82	18.61	8.69
								11238148.11	3814272.57	18.61	8.64
								11238148.28	3814273.48	18.61	8.64

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(m)	(m)	(m)	(m)	(m)
							11238152.86	3814273.98	18.61	8.61
							11238152.95	3814273.07	18.61	8.60
							11238160.89	3814273.86	18.61	8.58
							11238161.15	3814270.95	18.61	8.61
							11238162.54	3814271.08	18.61	8.61
							11238162.81	3814266.25	18.61	8.66
							11238165.25	3814266.45	18.61	8.66
							11238165.32	3814264.80	18.61	8.68
							11238162.87	3814264.66	18.61	8.68
							11238163.14	3814262.15	18.61	8.70
							11238166.25	3814262.55	18.61	8.71
							11238166.31	3814260.89	18.61	8.72
							11238164.13	3814260.69	18.61	8.72
							11238164.33	3814258.31	18.61	8.75
							11238166.64	3814258.51	18.61	8.75
							11238167.64	3814247.33	18.61	8.82
							11238167.64	3814246.00	18.61	8.81
							11238163.72	3814245.67	18.61	8.81
							11238163.89	3814241.75	18.61	8.78
							11238164.78	3814241.78	18.61	8.78
							11238165.04	3814238.54	18.61	8.76
							11238166.23	3814238.71	18.61	8.76
							11238166.30	3814237.48	18.61	8.75
							11238163.76	3814237.28	18.61	8.75
							11238164.02	3814234.21	18.61	8.72
							11238166.47	3814234.47	18.61	8.72
							11238166.66	3814232.95	18.61	8.71
							11238163.36	3814232.75	18.61	8.71
							11238163.42	3814229.77	18.61	8.69
							11238164.61	3814229.77	18.61	8.69
							11238164.75	3814227.19	18.61	8.67
							11238167.00	3814227.39	18.61	8.67
							11238167.59	3814220.78	18.61	8.66
							11238163.95	3814220.38	18.61	8.62
							11238164.27	3814217.23	18.61	8.59
							11238156.28	3814216.81	18.61	8.60
							11238156.18	3814215.44	18.61	8.59
							11238151.56	3814214.92	18.61	8.62
							11238151.45	3814216.18	18.61	8.62
							11238145.15	3814215.65	18.61	8.65
							11238145.25	3814214.60	18.61	8.65
							11238136.01	3814213.87	18.61	8.71
							11238136.01	3814214.60	18.61	8.71
							11238132.86	3814214.50	18.61	8.73
							11238132.54	3814218.38	18.61	8.73
							11238126.87	3814218.07	18.61	8.77
							11238127.40	3814213.03	18.61	8.78
							11238120.78	3814212.50	18.61	8.82
							11238120.58	3814215.48	18.61	8.81
							11238117.10	3814215.13	18.61	8.84
							11238116.49	3814220.84	18.61	8.83
							11238117.73	3814220.90	18.61	8.82
							11238117.52	3814223.95	18.61	8.82
							11238118.78	3814224.05	18.61	8.81
							11238118.50	3814226.50	18.61	8.81
							11238116.47	3814226.37	18.61	8.82
							11238116.05	3814232.93	18.61	8.82
							11238119.15	3814233.30	18.61	8.80
							11238118.89	3814236.34	18.61	8.81
							11238126.87	3814236.97	18.61	8.80
							11238127.06	3814235.74	18.61	8.79
							11238130.34	3814236.03	18.61	8.79
							11238130.23	3814237.29	18.61	8.80

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238135.07	3814237.81	18.61	8.79
								11238135.16	3814236.77	18.61	8.79
								11238137.87	3814236.95	18.61	8.78
								11238137.94	3814238.01	18.61	8.79
								11238142.84	3814238.34	18.61	8.79
								11238142.93	3814236.78	18.61	8.77
								11238145.70	3814237.04	18.61	8.77
								11238145.57	3814238.45	18.61	8.78
								11238151.09	3814238.63	18.61	8.78
								11238151.37	3814235.03	18.61	8.75
								11238154.39	3814235.19	18.61	8.75
								11238153.66	3814241.91	18.61	8.80
								11238151.03	3814241.70	18.61	8.80
								11238150.79	3814244.75	18.61	8.82
								11238152.42	3814244.85	18.61	8.82
								11238152.29	3814247.48	18.61	8.84
								11238154.60	3814247.79	18.61	8.84
								11238153.93	3814254.00	18.61	8.77
								11238151.03	3814253.68	18.61	8.77
								11238151.24	3814250.00	18.61	8.81
								11238146.30	3814249.58	18.61	8.80
								11238146.24	3814250.82	18.61	8.79
								11238142.93	3814250.81	18.61	8.78
								11238143.05	3814248.84	18.61	8.80
								11238138.53	3814248.42	18.61	8.80
								11238138.53	3814249.37	18.61	8.79
								11238131.60	3814248.74	18.61	8.78
								11238131.49	3814247.79	18.61	8.79
								11238122.57	3814247.06	18.61	8.78
								11238122.57	3814247.79	18.61	8.78
								11238119.62	3814247.69	18.61	8.81
								11238119.83	3814246.43	18.61	8.80
								11238111.96	3814245.80	18.61	8.85
								11238111.75	3814248.53	18.61	8.86
								11238110.17	3814248.63	18.61	8.85
								11238109.75	3814253.57	18.61	8.86
								11238107.44	3814253.47	18.61	8.85
								11238107.23	3814254.94	18.61	8.85
								11238109.65	3814255.15	18.61	8.86
								11238109.44	3814257.67	18.61	8.87
								11238108.17	3814257.77	18.61	8.86
								11238108.17	3814260.61	18.61	8.86
								11238106.70	3814260.61	18.61	8.85
			x	0		4.60	r	11238097.36	3814231.78	13.44	8.84
								11238106.36	3814232.57	13.44	8.84
								11238107.15	3814224.83	13.44	8.84
								11238110.06	3814225.16	13.44	8.84
								11238110.59	3814216.69	13.44	8.84
								11238107.68	3814216.44	13.44	8.84
								11238108.21	3814210.54	13.44	8.84
								11238104.31	3814210.14	13.44	8.84
								11238104.24	3814211.66	13.44	8.84
								11238100.20	3814211.26	13.44	8.84
								11238099.94	3814213.25	13.44	8.84
								11238096.56	3814212.92	13.44	8.84
								11238097.03	3814209.74	13.44	8.84
								11238088.95	3814208.88	13.44	8.87
								11238088.23	3814214.70	13.44	8.86
								11238080.15	3814214.17	13.44	9.07
								11238079.56	3814222.05	13.44	8.98
								11238098.22	3814223.90	13.44	8.84
			x	0		6.70	r	11237905.46	3814205.38	18.34	11.64
								11237914.47	3814205.18	18.34	11.59

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237914.43	3814204.36	18.34	11.58
								11237923.12	3814203.86	18.34	11.53
								11237923.13	3814204.51	18.34	11.54
								11237932.31	3814203.84	18.34	11.50
								11237932.04	3814199.06	18.34	11.50
								11237932.94	3814199.01	18.34	11.50
								11237932.73	3814195.02	18.34	11.50
								11237927.74	3814195.33	18.34	11.50
								11237927.74	3814193.13	18.34	11.50
								11237929.89	3814192.97	18.34	11.50
								11237929.06	3814180.72	18.34	11.50
								11237926.72	3814181.05	18.34	11.50
								11237926.64	3814176.71	18.34	11.50
								11237928.76	3814176.52	18.34	11.50
								11237927.92	3814163.93	18.34	11.50
								11237925.76	3814164.09	18.34	11.50
								11237925.76	3814160.17	18.34	11.50
								11237927.84	3814159.92	18.34	11.50
								11237927.34	3814148.00	18.34	11.50
								11237925.09	3814148.17	18.34	11.50
								11237924.92	3814146.00	18.34	11.50
								11237929.92	3814145.67	18.34	11.50
								11237929.63	3814141.37	18.34	11.50
								11237928.38	3814141.37	18.34	11.50
								11237928.34	3814137.33	18.34	11.50
								11237921.63	3814137.66	18.34	11.51
								11237921.59	3814136.87	18.34	11.52
								11237919.59	3814137.00	18.34	11.52
								11237919.59	3814137.96	18.34	11.52
								11237910.66	3814138.46	18.34	11.55
								11237910.54	3814137.66	18.34	11.55
								11237908.40	3814137.96	18.34	11.56
								11237908.44	3814138.69	18.34	11.55
								11237901.91	3814139.04	18.34	11.58
								11237902.12	3814143.33	18.34	11.55
								11237901.04	3814143.33	18.34	11.56
								11237901.24	3814147.42	18.34	11.53
								11237906.23	3814147.16	18.34	11.52
								11237906.41	3814149.29	18.34	11.50
								11237904.08	3814149.46	18.34	11.51
								11237904.83	3814161.72	18.34	11.50
								11237907.25	3814161.55	18.34	11.50
								11237907.41	3814165.64	18.34	11.50
								11237905.16	3814165.89	18.34	11.50
								11237906.00	3814177.97	18.34	11.50
								11237907.83	3814177.81	18.34	11.50
								11237908.08	3814182.06	18.34	11.50
								11237906.08	3814182.48	18.34	11.50
								11237906.87	3814194.52	18.34	11.52
								11237909.12	3814194.26	18.34	11.50
								11237909.19	3814196.57	18.34	11.53
								11237904.19	3814196.84	18.34	11.55
								11237904.45	3814201.12	18.34	11.60
								11237905.35	3814201.07	18.34	11.60
			x	0		9.75	r	11238039.03	3814154.34	18.89	9.14
								11238038.54	3814160.90	18.89	9.27
								11238040.69	3814161.10	18.89	9.28
								11238040.44	3814163.68	18.89	9.32
								11238039.44	3814163.68	18.89	9.31
								11238039.28	3814166.27	18.89	9.35
								11238037.86	3814166.27	18.89	9.34
								11238037.61	3814172.19	18.89	9.43
								11238040.94	3814172.44	18.89	9.45

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11238040.69	3814175.94	18.89	9.50
								11238047.20	3814176.27	18.89	9.55
								11238047.61	3814171.52	18.89	9.48
								11238052.53	3814171.94	18.89	9.48
								11238052.12	3814176.94	18.89	9.58
								11238057.20	3814177.35	18.89	9.59
								11238057.28	3814176.52	18.89	9.57
								11238063.29	3814176.94	18.89	9.55
								11238063.20	3814178.02	18.89	9.57
								11238067.87	3814178.52	18.89	9.55
								11238068.29	3814176.06	18.89	9.50
								11238073.42	3814176.44	18.89	9.48
								11238073.29	3814177.35	18.89	9.50
								11238077.13	3814177.77	18.89	9.45
								11238077.09	3814178.52	18.89	9.46
								11238080.05	3814178.77	18.89	9.42
								11238079.96	3814179.77	18.89	9.43
								11238089.63	3814180.36	18.89	9.31
								11238089.80	3814179.48	18.89	9.30
								11238092.47	3814179.69	18.89	9.27
								11238092.89	3814176.02	18.89	9.23
								11238098.22	3814176.52	18.89	9.16
								11238097.64	3814181.11	18.89	9.21
								11238104.47	3814181.69	18.89	9.13
								11238104.61	3814178.58	18.89	9.10
								11238108.51	3814178.91	18.89	9.06
								11238108.97	3814173.35	18.89	9.01
								11238107.44	3814173.24	18.89	9.01
								11238108.78	3814158.07	18.89	8.86
								11238042.87	3814151.71	18.89	9.08
								11238042.54	3814154.56	18.89	9.14
			x	0		9.75	r	11237904.07	3814078.49	17.44	7.69
								11237909.95	3814086.21	17.44	7.65
								11237912.05	3814084.16	17.44	7.65
								11237913.15	3814085.47	17.44	7.65
								11237912.42	3814086.21	17.44	7.67
								11237917.51	3814092.72	17.44	7.64
								11237924.66	3814086.79	17.44	7.57
								11237926.07	3814088.52	17.44	7.59
								11237928.99	3814085.74	17.44	7.58
								11237929.44	3814086.26	17.44	7.59
								11237937.05	3814079.91	17.44	7.58
								11237936.21	3814078.86	17.44	7.57
								11237938.31	3814077.12	17.44	7.57
								11237938.68	3814077.60	17.44	7.58
								11237942.20	3814074.81	17.44	7.57
								11237941.25	3814073.66	17.44	7.56
								11237946.14	3814069.72	17.44	7.56
								11237946.77	3814070.35	17.44	7.57
								11237948.66	3814068.56	17.44	7.56
								11237949.60	3814069.46	17.44	7.57
								11237957.06	3814063.26	17.44	7.58
								11237956.22	3814062.21	17.44	7.58
								11237958.47	3814060.48	17.44	7.58
								11237955.38	3814056.64	17.44	7.55
								11237956.54	3814055.59	17.44	7.55
								11237958.64	3814057.90	17.44	7.57
								11237965.99	3814052.23	17.44	7.57
								11237964.24	3814049.73	17.44	7.54
								11237965.57	3814048.56	17.44	7.53
								11237920.72	3813989.94	17.44	6.81
								11237912.53	3813997.09	17.44	6.88
								11237914.31	3813999.19	17.44	6.88

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237913.05	3814000.03	17.44	6.90
								11237911.37	3813997.82	17.44	6.90
								11237903.81	3814004.23	17.44	7.02
								11237905.59	3814006.44	17.44	7.02
								11237904.33	3814007.17	17.44	7.04
								11237907.69	3814011.16	17.44	7.03
								11237909.27	3814009.80	17.44	7.01
								11237910.95	3814012.00	17.44	7.01
								11237910.00	3814012.74	17.44	7.03
								11237911.90	3814014.94	17.44	7.03
								11237910.85	3814015.89	17.44	7.04
								11237917.15	3814023.66	17.44	7.06
								11237918.30	3814022.82	17.44	7.04
								11237921.67	3814027.13	17.44	7.09
								11237920.51	3814028.08	17.44	7.10
								11237926.39	3814036.27	17.44	7.22
								11237927.55	3814035.32	17.44	7.21
								11237930.70	3814039.32	17.44	7.27
								11237929.33	3814040.58	17.44	7.28
								11237932.51	3814044.55	17.44	7.34
								11237933.24	3814044.08	17.44	7.34
								11237935.69	3814047.39	17.44	7.39
								11237937.14	3814045.67	17.44	7.37
								11237938.00	3814046.60	17.44	7.39
								11237938.67	3814046.10	17.44	7.38
								11237941.09	3814049.27	17.44	7.43
								11237942.17	3814049.35	17.44	7.44
								11237941.92	3814050.18	17.44	7.44
								11237942.09	3814051.85	17.44	7.46
								11237939.17	3814053.60	17.44	7.46
								11237938.42	3814053.18	17.44	7.46
								11237935.42	3814055.77	17.44	7.45
								11237934.75	3814055.02	17.44	7.44
								11237934.08	3814055.52	17.44	7.44
								11237932.58	3814053.52	17.44	7.43
								11237929.00	3814056.35	17.44	7.42
								11237929.75	3814057.27	17.44	7.43
								11237927.91	3814058.69	17.44	7.43
								11237927.16	3814057.35	17.44	7.42
								11237919.33	3814063.94	17.44	7.42
								11237920.08	3814064.77	17.44	7.43
								11237916.03	3814068.10	17.44	7.43
								11237915.17	3814067.34	17.44	7.44
								11237914.16	3814068.44	17.44	7.47
								11237915.82	3814070.11	17.44	7.45
								11237914.10	3814071.65	17.44	7.50
								11237913.49	3814070.86	17.44	7.50
								11237909.55	3814074.43	17.44	7.61
								11237909.97	3814074.85	17.44	7.60
								11237907.93	3814076.62	17.44	7.66
								11237906.24	3814074.64	17.44	7.67
								11237905.33	3814075.52	17.44	7.69
								11237906.14	3814076.48	17.44	7.69
			x	0		4.60	r	11237881.78	3814008.79	11.88	7.28
								11237891.07	3814025.96	11.88	7.31
								11237893.17	3814024.65	11.88	7.28
								11237893.49	3814025.39	11.88	7.28
								11237895.54	3814024.13	11.88	7.25
								11237895.22	3814023.60	11.88	7.25
								11237897.43	3814022.39	11.88	7.22
								11237899.74	3814021.08	11.88	7.19
								11237895.70	3814013.52	11.88	7.17
								11237898.69	3814011.78	11.88	7.13

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(m)		(m)	(m)	(m)	(m)
								11237895.49	3814005.48	11.88	7.11
								11237897.74	3814004.22	11.88	7.08
								11237895.07	3813999.55	11.88	7.15
								11237893.17	3814000.70	11.88	7.17
								11237892.65	3813999.81	11.88	7.18
								11237891.39	3814000.91	11.88	7.19
								11237890.50	3813999.28	11.88	7.23
								11237887.71	3814001.23	11.88	7.25
								11237888.34	3814002.59	11.88	7.23
								11237886.92	3814003.38	11.88	7.24
								11237887.34	3814004.11	11.88	7.23
								11237883.93	3814006.11	11.88	7.27
								11237884.56	3814007.11	11.88	7.25
			x	0		9.75	r	11237824.66	3813980.79	17.23	7.48
								11237875.27	3813944.25	17.23	7.41
								11237897.74	3813973.02	17.23	7.33
								11237883.25	3813983.52	17.23	7.31
								11237871.49	3813968.61	17.23	7.42
								11237835.16	3813995.91	17.23	7.33

Geometrie Höhenlinien

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237871.28	3814268.78	13.40
						11237882.03	3814269.78	11.90
						11237895.54	3814270.95	11.60
						11237910.79	3814272.20	11.00
						11237946.38	3814275.70	11.00
						11237960.87	3814277.35	10.70
						11238006.05	3814281.45	10.50
						11238074.42	3814287.97	10.10
						11238128.34	3814292.90	9.15
						11238169.52	3814296.90	8.54
						11238187.85	3814298.40	9.15
						11238186.80	3814204.20	7.93
						11237865.11	3814280.70	12.20
						11237919.09	3814284.91	11.00
						11238073.25	3814299.82	11.00
						11238250.89	3814315.71	10.10
						11237902.99	3814212.44	11.60
						11237901.21	3814224.35	11.50
						11237900.28	3814243.40	11.50
						11237902.00	3814246.57	11.50
						11237950.17	3814249.75	11.00
						11237953.34	3814243.13	11.00
						11237958.77	3814244.06	11.00
						11237960.35	3814251.21	10.90
						11237989.86	3814253.46	10.90
						11238007.73	3814255.18	10.70
						11238009.71	3814251.60	10.70
						11238012.09	3814224.48	11.30
						11238004.75	3814221.37	11.30
						11237962.54	3814218.13	11.00
						11237942.76	3814216.34	11.00
						11237905.17	3814212.56	11.60
						11238034.49	3814231.70	10.40
						11238032.99	3814240.04	10.50
						11238032.90	3814255.29	10.40
						11238037.07	3814258.71	10.40
						11238071.50	3814261.46	9.76
						11238099.75	3814264.05	8.84

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11238103.51	3814259.21	8.84
						11238102.92	3814241.21	8.84
						11238097.59	3814236.29	8.84
						11238036.24	3814231.12	10.40
						11238112.56	3814239.62	8.84
						11238108.46	3814246.89	8.84
						11238105.41	3814257.35	8.84
						11238103.30	3814270.71	8.84
						11238114.15	3814274.15	8.93
						11238162.18	3814277.99	8.54
						11238169.19	3814272.83	8.54
						11238172.37	3814250.73	8.84
						11238172.50	3814218.98	8.84
						11238164.30	3814210.64	8.54
						11238121.56	3814208.39	8.84
						11238114.94	3814217.25	8.84
						11238112.16	3814239.35	8.84
						11238112.72	3814207.99	8.84
						11238091.71	3814201.80	8.84
						11238077.95	3814210.62	9.15
						11238074.07	3814220.91	8.99
						11238085.10	3814231.21	8.84
						11238099.06	3814234.46	8.84
						11238035.65	3814154.34	9.15
						11238032.74	3814175.25	9.45
						11238059.21	3814185.97	9.76
						11238107.77	3814188.61	9.15
						11238122.06	3814164.66	9.15
						11238120.07	3814155.53	9.15
						11237903.76	3814209.71	11.70
						11237902.44	3814191.06	11.50
						11237901.25	3814153.21	11.50
						11237899.92	3814136.14	11.60
						11237930.89	3814133.89	11.50
						11237935.25	3814206.67	11.50
						11237933.93	3814132.97	11.50
						11237963.18	3814143.95	11.00
						11237993.61	3814171.60	9.45
						11238023.78	3814173.72	9.76
						11237898.20	3814133.45	11.00
						11237897.36	3814121.11	8.54
						11237893.03	3814100.94	7.62
						11237880.03	3814067.93	7.62
						11237861.35	3814016.74	7.62
						11237844.60	3814008.66	7.32
						11237824.93	3813996.32	7.32
						11237916.25	3814099.08	7.93
						11237901.43	3814082.14	7.62
						11237900.90	3814072.35	7.74
						11237912.78	3814050.56	7.32
						11237892.08	3814029.08	7.32
						11237877.91	3814010.91	7.32
						11237871.24	3813998.24	7.26
						11237854.43	3813994.25	7.32
						11237831.96	3813999.08	7.30
						11237821.24	3813984.16	7.32
						11237825.75	3813978.00	7.56
						11237860.61	3813946.91	7.56
						11237881.20	3813937.25	7.32
						11237900.52	3813973.37	7.32
						11237925.85	3813991.70	6.71
						11237971.28	3814054.17	7.62
						11237957.78	3814072.04	7.62

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(m)	(m)	(m)	(m)	(m)
						11237921.26	3814097.71	7.62
						11237984.06	3814104.64	11.30
						11238018.30	3814121.86	10.40
						11238056.65	3814140.87	8.84
						11238109.00	3814156.21	8.84

Geometrie Bruchkanten

Name	M.	ID	Coordinates	
			x	y
			(m)	(m)

Rincon Consultants, Inc.
<Analysis By?>
20 November 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Heritage Ridge
RUN: Existing Noise
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Willow Springs I and II	5	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
Project Site	7	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
Noise Measurement	11	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	3	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Rincon Consultants, Inc.
<Analysis By?>

6 April 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Heritage Ridge
RUN: Existing + Project Noise
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Willow Springs I and II	5	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
Project Site	7	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
Noise Measurement	11	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	3	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Rincon Consultants, Inc.
<Analysis By?>
20 November 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Heritage Ridge
RUN: Cumulative
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Willow Springs I and II	5	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
Project Site	7	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
Noise Measurement	11	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	3	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Rincon Consultants, Inc.
<Analysis By?>

6 April 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Heritage Ridge
RUN: Cumulative + Project
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Willow Springs I and II	5	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
Project Site	7	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
Noise Measurement	11	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0

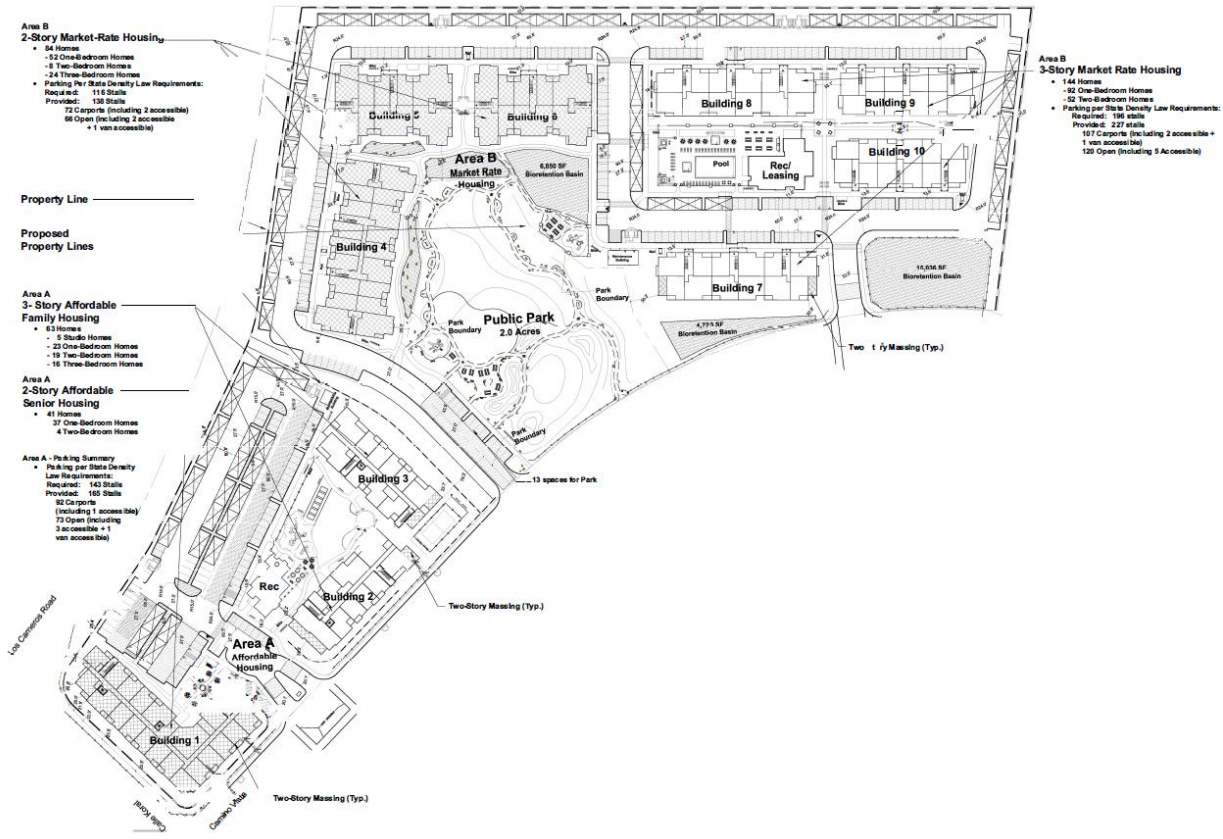
Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	3	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Appendix I

Updated Traffic and Circulation Study and VMT Calculations

HERITAGE RIDGE PROJECT
CITY OF GOLETA, CALIFORNIA

UPDATED TRAFFIC AND CIRCULATION STUDY



March 31, 2021 **ATE Project #20058.01**

Prepared for:
TK Consulting
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Since 1978

Richard L. Pool, P.E.
Scott A. Schell

March 31, 2021

2005801R01

Jared Nuzman
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UPDATED TRAFFIC AND CIRCULATION STUDY
FOR THE HERITAGE RIDGE PROJECT – CITY OF GOLETA

Associated Transportation Engineers (ATE) has prepared the following updated traffic and circulation study for the Heritage Ridge Project proposed in the City of Goleta. ATE prepared a report in 2016 for the project and City staff requested that the traffic study be updated due to the age of the existing traffic counts.

Associated Transportation Engineers

Scott A. Schell
Principal Transportation Planner

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INTRODUCTION

The following report presents the results of the updated traffic and circulation analysis prepared for the Heritage Ridge Project (the "Project") proposed in the City of Goleta. The report evaluates existing and future traffic operations for key roadways and intersections that were identified by City staff in order to determine the Project's consistency with City's General Plan level of service transportation policies.

PROJECT DESCRIPTION

The Project is proposing to construct a 332 apartment units and a 2-acre park on a currently vacant site located on the east side of Los Carneros Way north of the Calle Koral intersection in the western area of the City of Goleta. Figure 1 shows the Project location within the City. As shown on Figure 2 (Project Site Plan), 228 units are designated as market rate units, 63 units are designated as affordable family units, and 41 units are designated as affordable senior units. Access to the site would be provided via three driveways on Camino Vista, which extends along the southern frontage of the site.

EXISTING CONDITIONS

Street Network

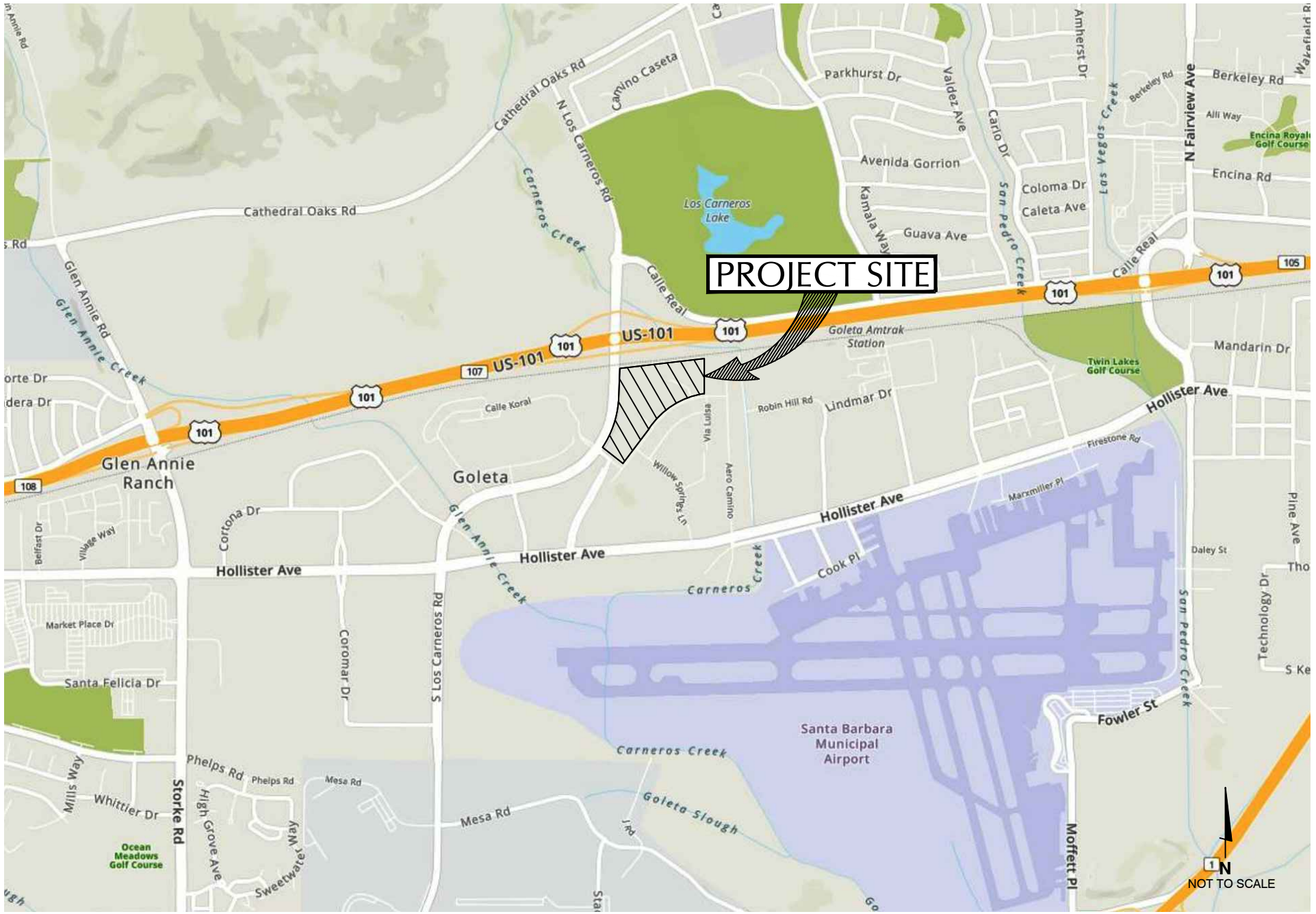
The Project site is served by a network of highways, arterial roadways, and collector streets, as shown in Figure 3. The following text briefly describes the major components of the study-area street network.

US 101, located north of the Project site, is a multi-lane interstate highway serving the Pacific coast between Los Angeles and the state of Washington. US 101 is the principal route between the City of Goleta and the adjacent cities of Santa Barbara, Carpinteria, and Ventura to the south; and the cities of Buellton and Santa Maria to the north. Project access to US 101 would be provided via the Los Carneros Road interchange.

Hollister Avenue, located south of the Project, is an arterial roadway that serves as the main east-west surface street through the community of Goleta. Hollister Avenue is a 4-lane divided arterial with on-street bike lanes.

Los Carneros Road, located west of the Project site, is a north-south arterial street. North of Hollister Avenue, Los Carneros Road extends as a 4- to 5-lane roadway connecting with the US 101 interchange and continues north to its terminus at Cathedral Oak Road. Los Carneros Road is a 4-lane arterial south of Hollister Avenue to Discovery Drive and a 2-lane arterial south of Discovery Drive to El Colegio Road.

Los Carneros Way is a 2-lane road located south of the Project site that extends between Calle Koral and Hollister Avenue.

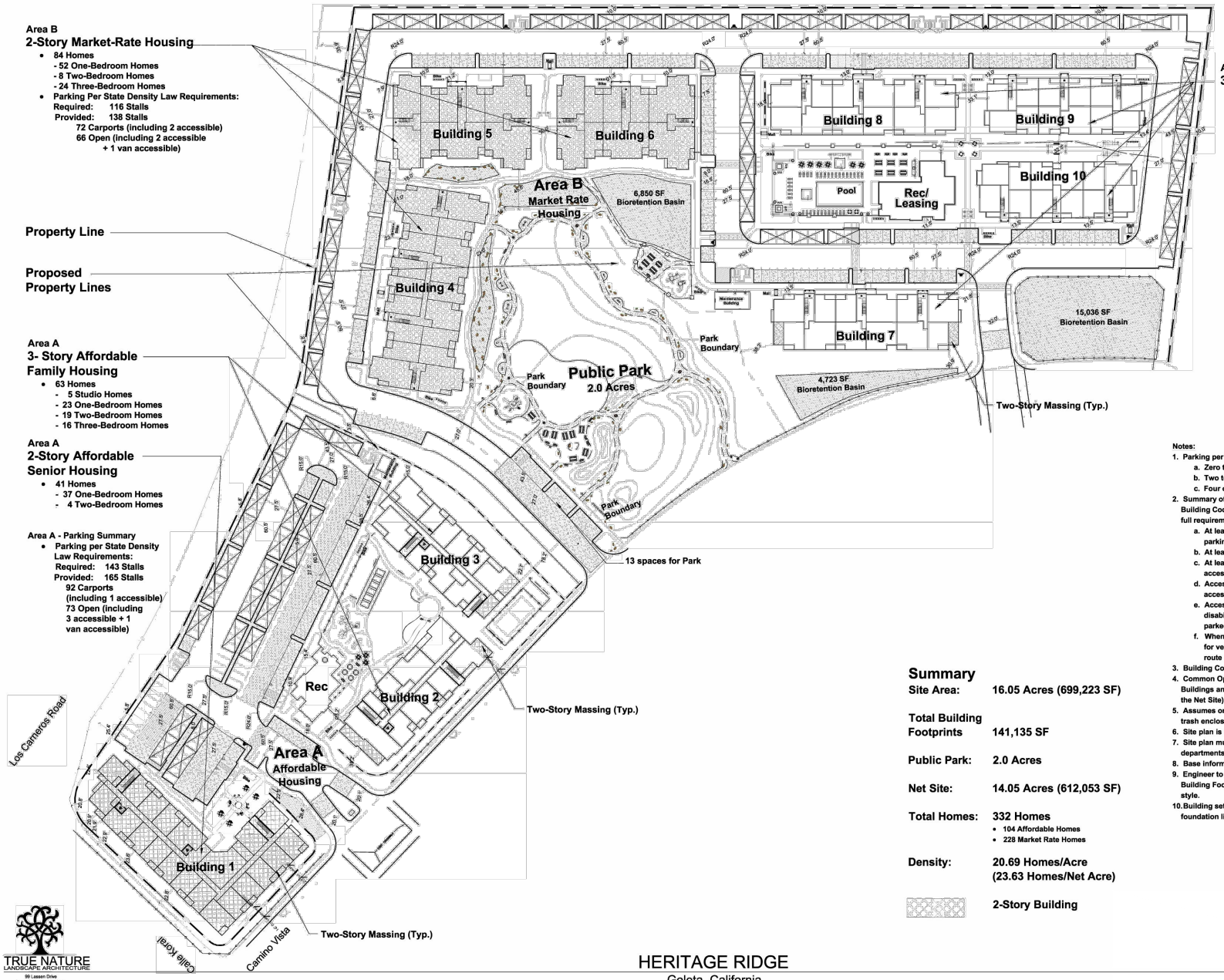


ASSOCIATED TRANSPORTATION ENGINEERS

PROJECT SITE LOCATION

FIGURE 1

JH - ATE#20058.01



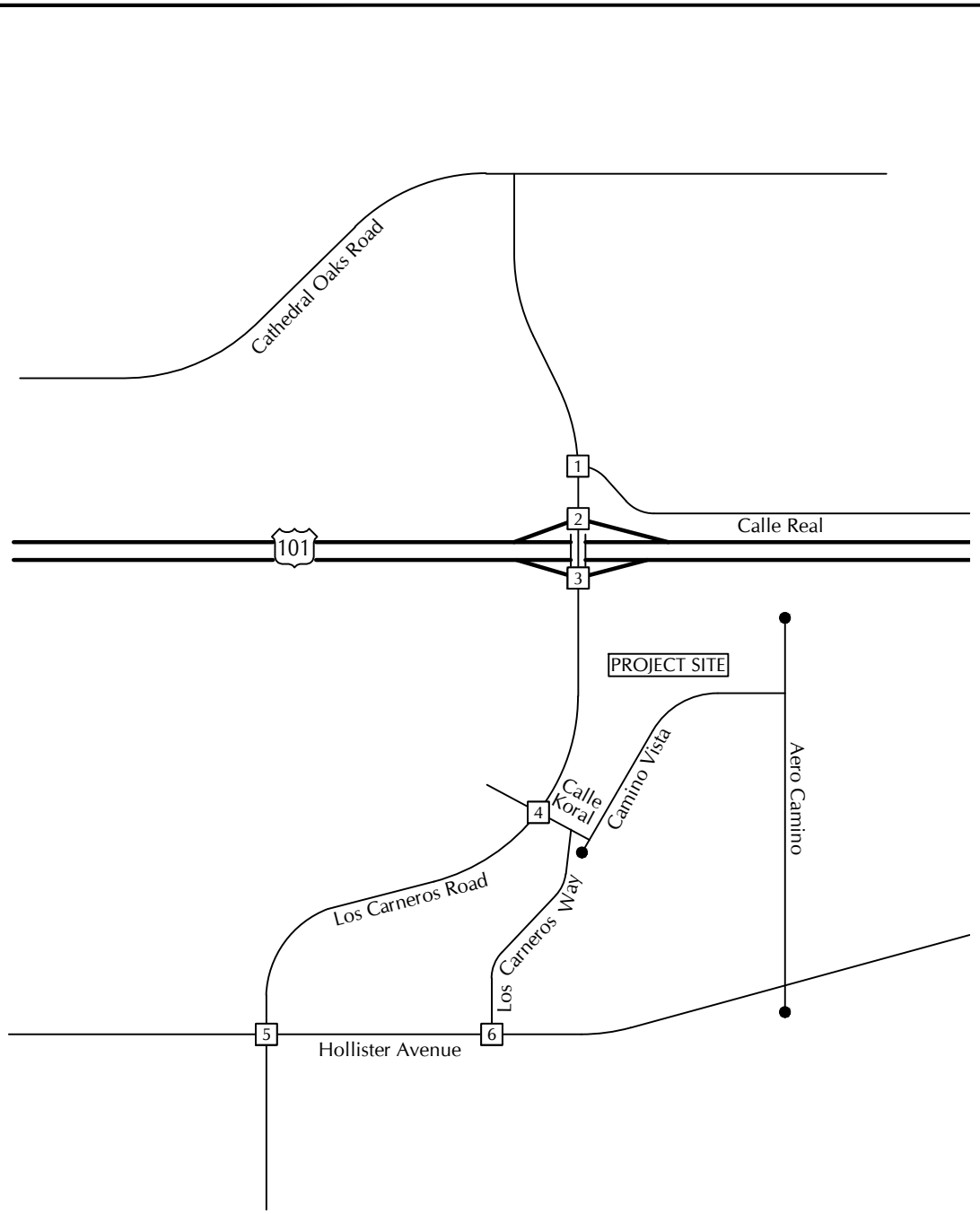
HERITAGE RIDGE
Goleta, California
The Towbes Group, Inc

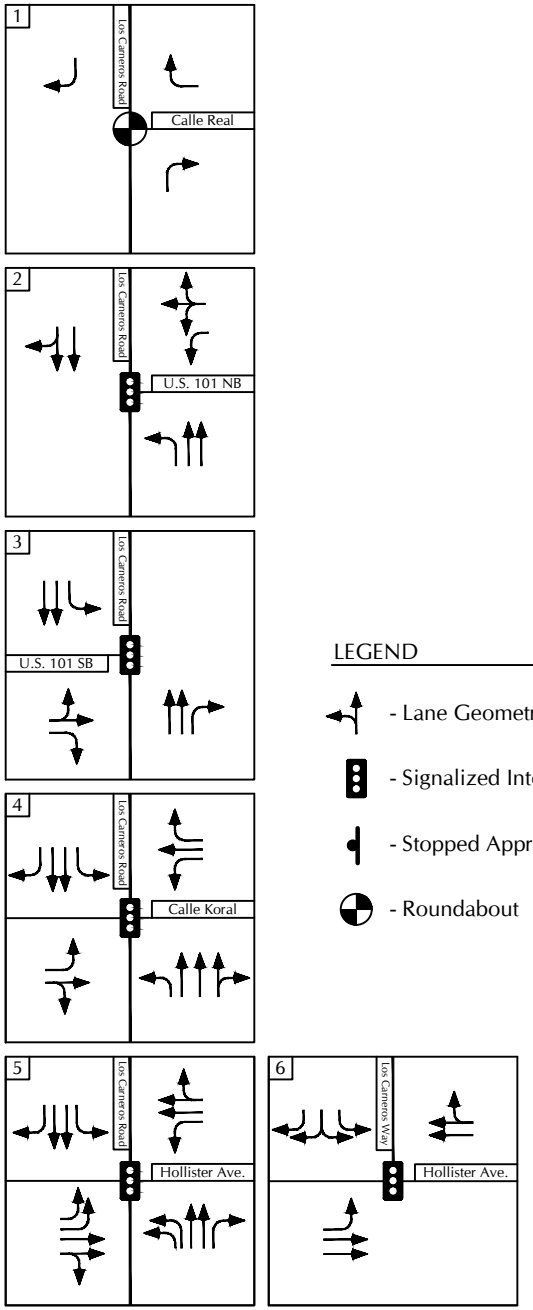
ASSOCIATED TRANSPORTATION ENGINEERS

PROJECT SITE PLAN

FIGURE 2

JH - ATE#20058.01





ASSOCIATED TRANSPORTATION ENGINEERS

EXISTING STREET NETWORK

FIGURE 3

JH - ATE#20058.01

Calle Koral, located southwest of the Project, is a 2-lane road that extends from Los Carneros Road to Camino Vista.

Camino Vista, located along the southern frontage of the Project site, is a 2-lane road that extends between Calle Koral and Aero Camino. Project access is proposed via 3 driveways on Camino Vista.

Aero Camino, located east of the Project site, is a 2-lane road that serves the existing industrial land uses and extends north from Hollister Avenue to its terminus south of US 101.

Roadway Operations

Figure 4 shows the Existing average daily traffic (ADT) volumes for the key study-area roadway segments identified for analysis. Existing roadway volumes collected by the City in 2019 were used in the analysis. The City of Goleta has established LOS C as the minimum acceptable operating standard for roadways. The operational characteristics of the study-area roadways were analyzed based on the LOS C policy and City's "Acceptable Capacity" rating system (see Technical Appendix for roadway capacity and LOS C summary table). Table 1 shows the Existing ADT volumes and the City's Acceptable Capacity thresholds (LOS C thresholds) for the key roadways in the study-area. As shown, the study-area roadway segments currently carry traffic volumes within the City's Acceptable Capacity ratings, which indicates LOS C or better.

Table 1
Existing Roadway Operations

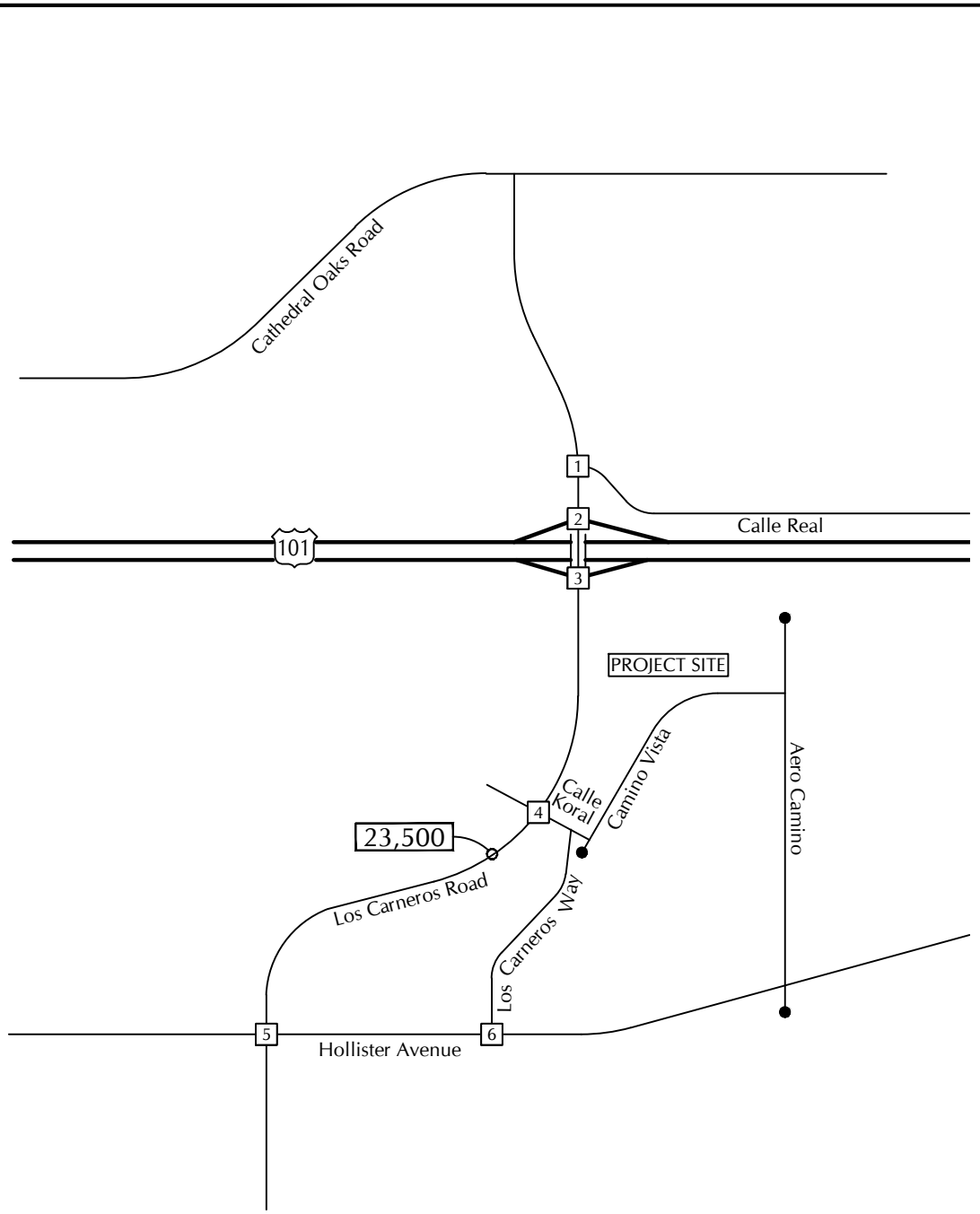
Roadway Segment	Roadway Classification	Number of Lanes	Acceptable Capacity(a)	Existing ADT
Los Carneros Road s/o Calle Koral	Major Arterial	4 Lanes	34,000	23,500

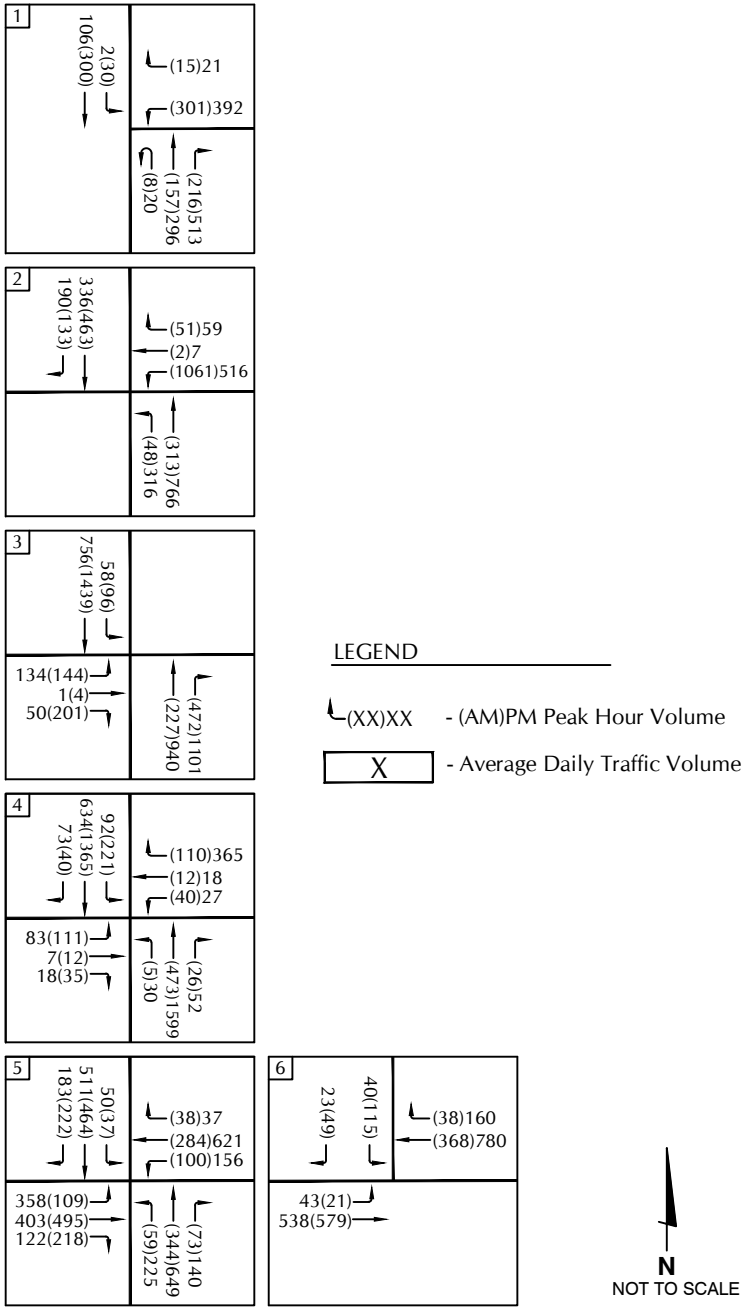
(a) Acceptable Capacity equates to LOS C standard.

Intersection Operations

Because traffic flows on street networks are most constrained at intersections, detailed traffic analyses focus on operations at key intersections during peak travel periods. In rating intersection operations, "Levels of Service" (LOS) A through F are used, with LOS A indicating free flow operations and LOS F indicating congested operations (more complete definitions of levels of service are included in the Technical Appendix). The City of Goleta has established LOS C as the minimum acceptable operating standard for intersections.

Existing peak hour volumes collected by the City in 2019 were used in the analysis (traffic count data is contained in the Technical Appendix for reference). The 2019 volumes were adjusted to account for traffic generated by two post-2019 developments: 1) The Villages at Los Carneros located west of the Los Carneros Road/Calle Koral intersection and 2) the Target store located near the Storke Road/Hollister Avenue intersection.





Associated Transportation Engineers

EXISTING TRAFFIC VOLUMES

FIGURE 4

JH - ATE#20058.01

Figure 4 shows the peak hour turning movements for the study-area intersections. Levels of service were calculated for the signalized intersections using the "Intersection Capacity Utilization" (ICU) methodology adopted by the City (LOS calculations contained in Technical Appendix). As shown in Table 2, the study-area intersections currently operate at LOS C or better, which meet the City's LOS C standard.

Table 2
Existing Intersection Operations

Intersection	Control	AM Peak Hour		PM Peak Hour	
		ICU/Delay	LOS	ICU/Delay	LOS
#1 - Los Carneros Road/Calle Real(a)	Roundabout	6.6 Sec.	A	10.4 Sec.	B
#2 - Los Carneros Road/US 101 NB Ramps	Signal	0.654	B	0.633	B
#3 - Los Carneros Road/US 101 SB Ramps	Signal	0.648	B	0.736	C
#4 - Los Carneros Road/Calle Koral	Signal	0.607	B	0.685	B
#5 - Los Carneros Road/Hollister Avenue	Signal	0.536	A	0.651	B
#6 - Hollister Avenue/Los Carneros Way	Signal	0.317	A	0.427	A

(a) Roundabout intersection LOS based on average delay per vehicle in seconds.

CITY OF GOLETA CONSISTENCY CRITERIA

The transportation policies and standards outlined in City's Circulation Element of the General Plan were used to evaluate the Project's consistency with the City's General Plan (Policies TE 4.1-4.3). As outlined in the Circulation Element, the policies state that the traffic standard is to maintain LOS C or better on major arterials, minor arterials, collector roadways, and at intersections. A deficiency plan is required where LOS C is exceeded. The Circulation Element policies include an exception for the Storke-Hollister intersection, where the policy is to maintain LOS D or better with a volume-to-capacity of 0.89 or better.

EXISTING + PROJECT ANALYSIS

Trip Generation

Following City recommendations, trip generation estimates were calculated using the rates presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual.[1] For the market rate apartments, the analysis uses the ITE Multi Family Housing – Low Rise rates (ITE Land Use Code #220) to calculate average daily trips. The AM and PM peak hour trip rates were developed from driveway counts collected at the existing Willow Springs apartments since they reflect local conditions and are slightly higher than the ITE average rates for apartment units.

[1] Trip Generation, Institute of Transportation Engineers, 10th Edition, 2017.

For the affordable rate apartments, the analysis is based on adjusted ITE rates since affordable apartments generate less traffic than market rate apartments. According to data contained in OPR Technical Advisory on Evaluating Transportation impacts in CEQA, affordable housing units generate less traffic than market rate units. The Technical Advisory states, "Adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing vehicle miles traveled." The studies cited in the advisory indicate that affordable multifamily units in suburban areas generate about 71% of the traffic generated by market-rate units in suburban areas. Thus, the ITE Apartment rates (ITE Land Use Code #220) were adjusted for the affordable rate apartments to reflect 71% of the traffic for market rate units. Similarly, for the affordable senior apartments, the ITE rates for Senior Adult Housing - Attached (ITE Land Use Code #252) were adjusted to reflect 71% of the traffic of market rate units.

Table 3 presents trip generation estimates for the Project (a worksheet showing the trip generation calculations is contained in Technical Appendix).

Table 3
Project Trip Generation

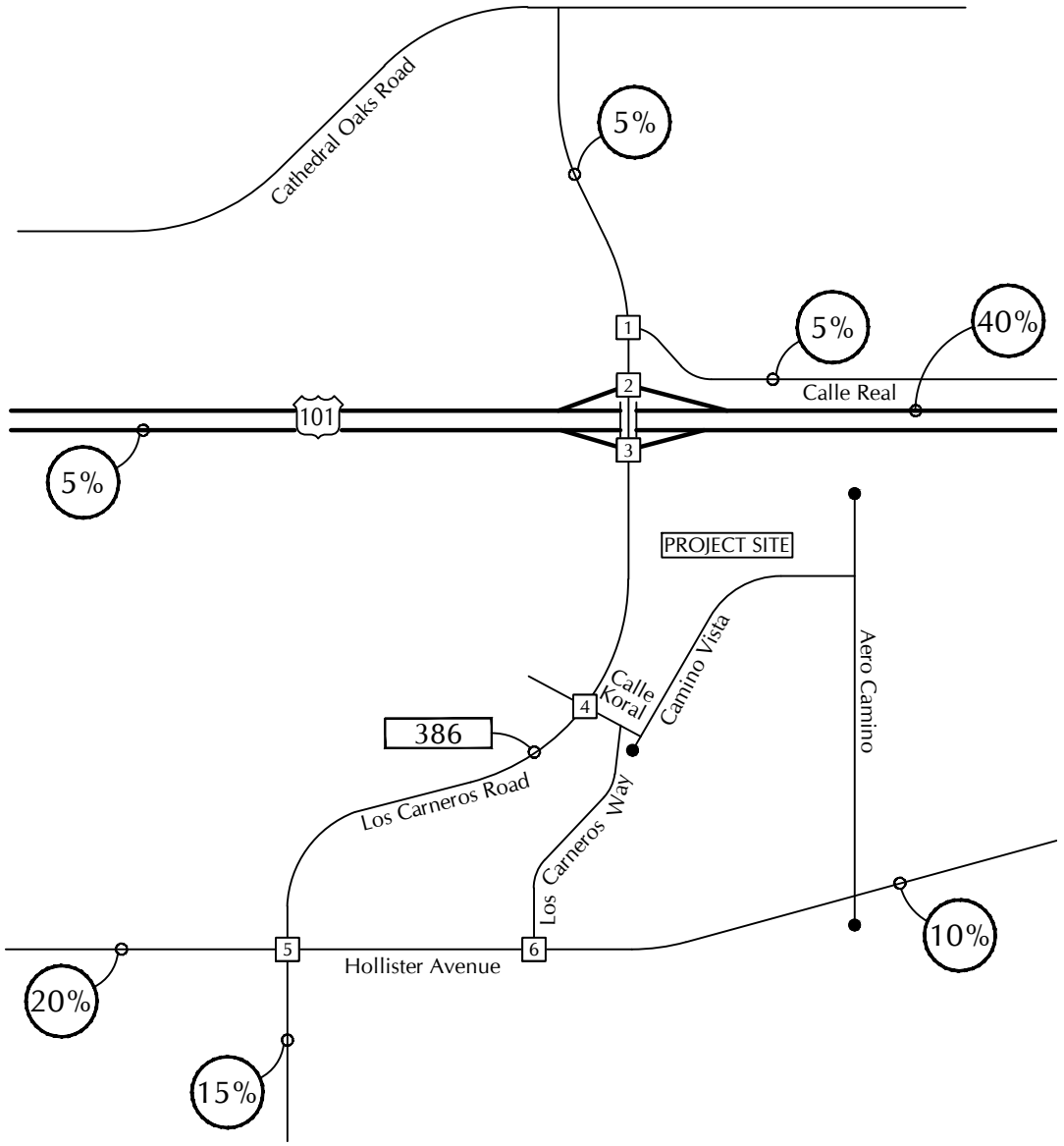
Land Use	Size	ADT		AM Peak Hour		PM Peak Hour	
		Rate	Trips	Rate	Trips (In/Out)	Rate	Trips(In/Out)
Market Rate Apartments(a)	228 DU	7.32	1,669	0.65	148 (25/123	0.66	150 (105/45)
Affordable Apartments(b)	63 DU	5.20	328	0.46	29 (5/24)	0.47	30 (21/9)
Affordable Senior Apartments(c)	41 DU	2.63	108	0.14	6 (2/4)	0.18	7 (4/3)
Public Park(d)	2 Acres	50.00	100	6.50	13 (7/6)	4.50	9 (5/4)
Totals			**2,205**		**196 (39/157)**		**196 (135/61)**

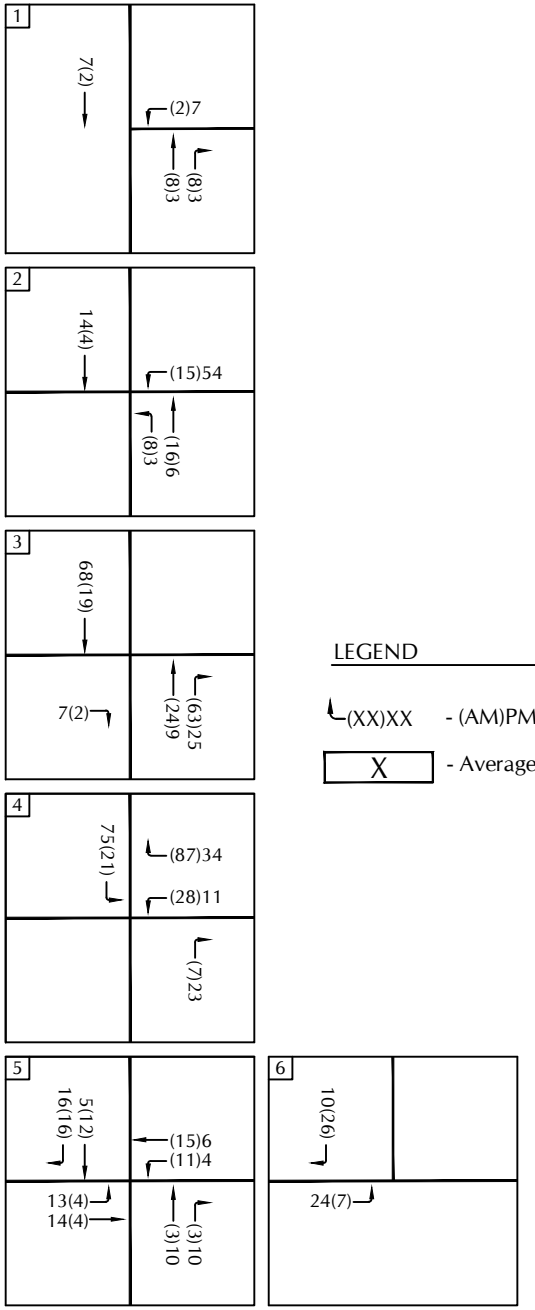
(a) ADT based on ITE rates for Multifamily Housing (Low Rise - ITE #220). AM & PM rates based on local study.
(b) ADT based on ITE rates for Multifamily Housing (Low Rise - ITE #220). AM & PM rates based on local study.
(c) Trip generation based on ITE rates for Senior Adult Housing - Attached (ITE #252). Rates adjusted by 71% to account for affordable housing designation.

As shown in Table 3, the Project is forecast to generate 2,205 ADT, with 196 trips occurring during the AM peak hour and 196 trips occurring during the PM peak hour.

Trip Distribution

Trip distribution percentages were developed for the Project based on existing traffic patterns observed at the existing Willow Springs apartment complex. Table 4 presents the trip distribution pattern developed for the Project. Figure 5 illustrates the trip distribution pattern and shows the assignment of Project traffic on the study-area street network.





LEGEND

(XX)XX - (AM)PM Peak Hour Volume

X - Average Daily Traffic Volume

N
NOT TO SCALE

ASSOCIATED TRANSPORTATION ENGINEERS

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 5

JH - ATE#20058.01

Table 4
Project Trip Distribution

Origin/Destination	Direction	Distribution %
US 101	East of Los Carneros West of Los Carneros	40% 5%
Hollister Avenue	East of Aero Camino(a) West of Los Carneros	10% 20%
Los Carneros Road	South of Hollister North of Calle Real	15% 5%
Calle Real	East of Los Carneros	5%
Total:		**100%**

(a) Via Aero Camino.

Existing + Project Roadway Operations

Existing + Project roadway volumes are shown on Figure 6. Table 5 compares the Existing and Existing + Project roadway volumes and identifies locations that are forecast to exceed the City's LOS C standard. As shown, the study-area roadways are forecast to carry volumes within their Acceptable Capacity ratings under Existing + Project conditions. Thus, the Project would be consistent with the City's LOS C standard for roadways.

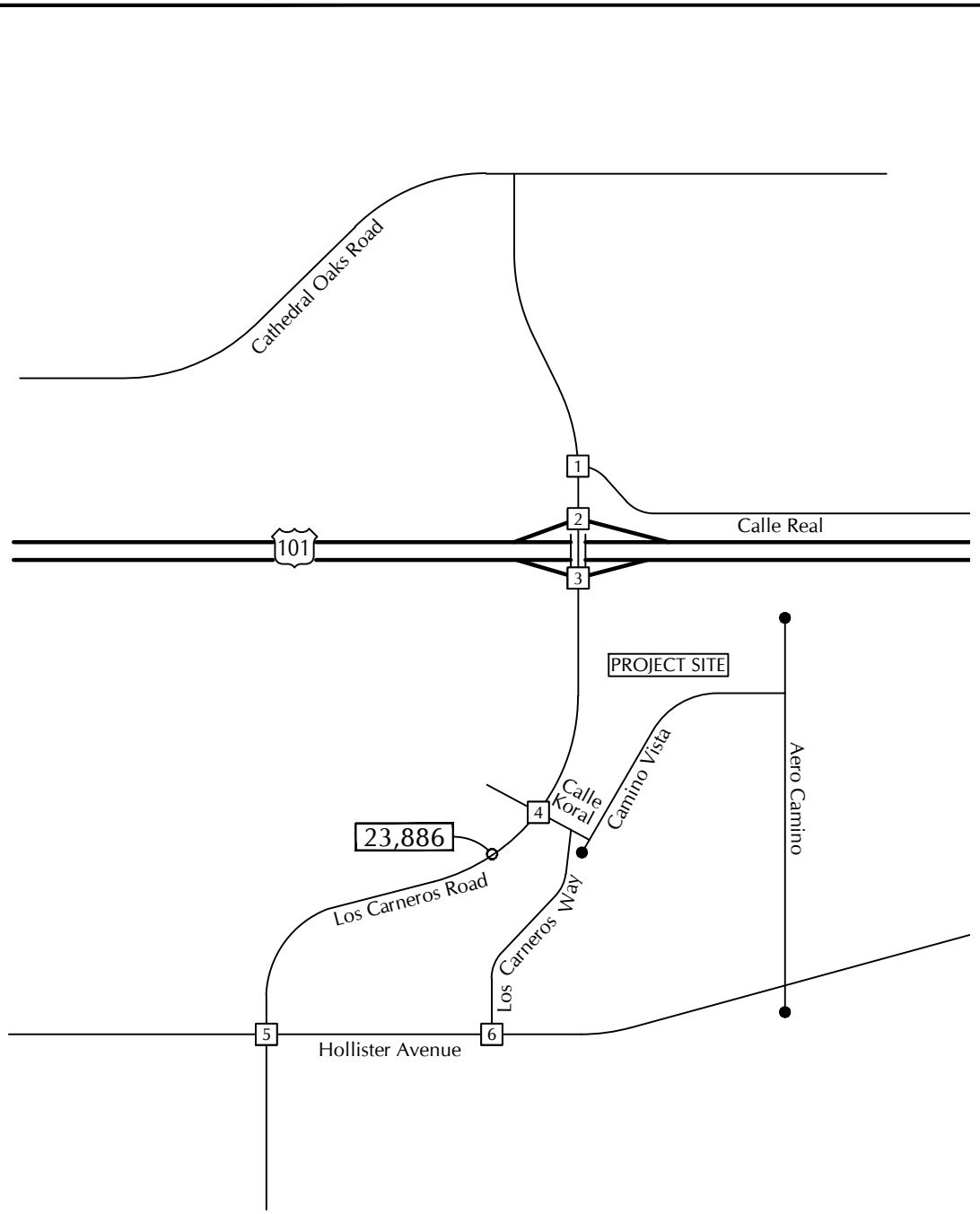
Table 5
Existing + Project Roadway Operations

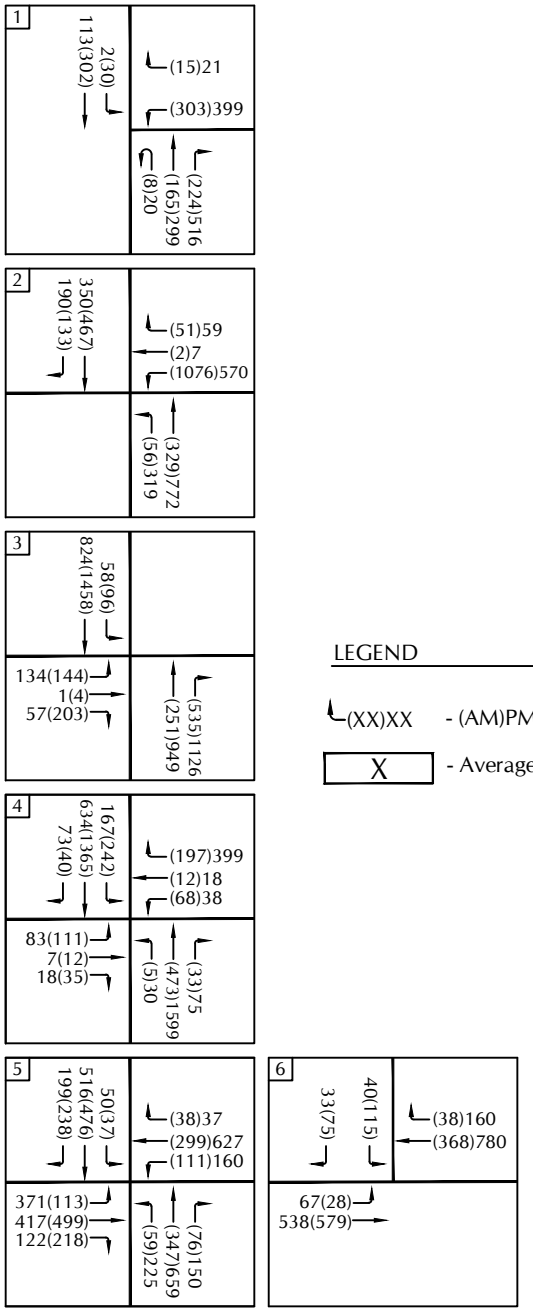
Roadway Segment	Average Daily Trips				Exceeds LOS C?
	Acceptable Capacity(a)	Existing	Project Added	Existing + Project	
Los Carneros Road s/o Calle Koral	34,000	23,500	386	23,886	No

(a) Acceptable Capacity equates to LOS C standard.

Existing + Project Intersection Operations

Existing + Project levels of service were calculated for the study-area intersections assuming the traffic volumes presented on Figure 6. Tables 6 and 7 compare the Existing and Existing + Project levels of service and identify intersections that are forecast to exceed the City's LOS C standard.





LEGEND

(XX)XX - (AM)PM Peak Hour Volume

X - Average Daily Traffic Volume

N
NOT TO SCALE

Associated
Transportation
Engineers

EXISTING + PROJECT TRAFFIC VOLUMES

FIGURE 6

JH - ATE#20058.01

Table 6
Existing + Project Intersection Operations – AM Peak Hour

Intersection	Existing		Existing + Project		Exceeds LOS C?
	ICU/Delay	LOS	ICU/Delay	LOS	
#1 - Los Carneros Road/Calle Real(a)	6.6 Sec.	A	6.7 Sec.	A	No
#2 - Los Carneros Road/US 101 NB Ramps	0.654	B	0.667	B	No
#3 - Los Carneros Road/US 101 SB Ramps	0.648	B	0.655	B	No
#4 - Los Carneros Road/Calle Koral	0.607	B	0.607	B	No
#5 - Los Carneros Road/Hollister Avenue	0.536	A	0.547	A	No
#6 - Hollister Avenue/Los Carneros Way	0.317	A	0.317	A	No

(a) Roundabout intersection LOS based on average delay per vehicle in seconds.

Table 7
Existing + Project Intersection Operations – PM Peak Hour

Intersection	Existing		Existing + Project		Exceeds LOS C?
	ICU/Delay	LOS	ICU/Delay	LOS	
#1 - Los Carneros Road/Calle Real(a)	10.4 Sec.	B	10.6 Sec.	B	No
#2 - Los Carneros Road/US 101 NB Ramps	0.633	B	0.656	B	No
#3 - Los Carneros Road/US 101 SB Ramps	0.736	C	0.748	C	No
#4 - Los Carneros Road/Calle Koral	0.685	B	0.706	C	No
#5 - Los Carneros Road/Hollister Avenue	0.651	B	0.660	B	No
#6 - Hollister Avenue/Los Carneros Way	0.427	A	0.442	A	No

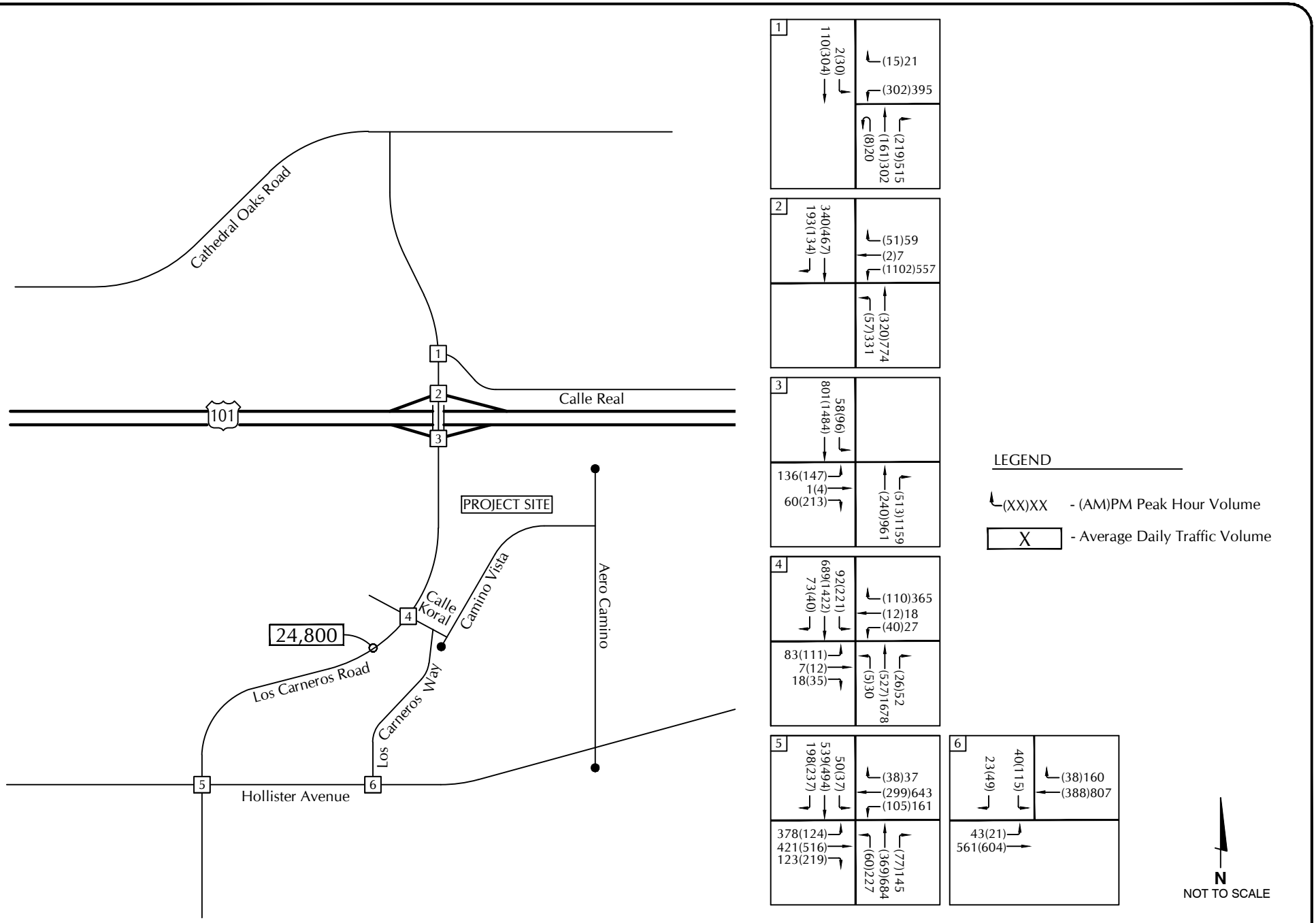
(a) Roundabout intersection LOS based on average delay per vehicle in seconds.

As shown in Tables 6 and 7, the study-area intersections are forecast to operate at LOS C or better under Existing + Project conditions. Thus, the Project would be consistent with the City's LOS C standard for intersections.

CUMULATIVE ANALYSIS

Traffic Forecasts

Cumulative traffic volumes were forecast based on a list of approved and pending projects proposed within the City of Goleta (the list of approved and pending projects is contained in the Technical Appendix for reference). Cumulative traffic volumes are shown on Figure 7 and Cumulative + Project volumes are shown on Figure 8.

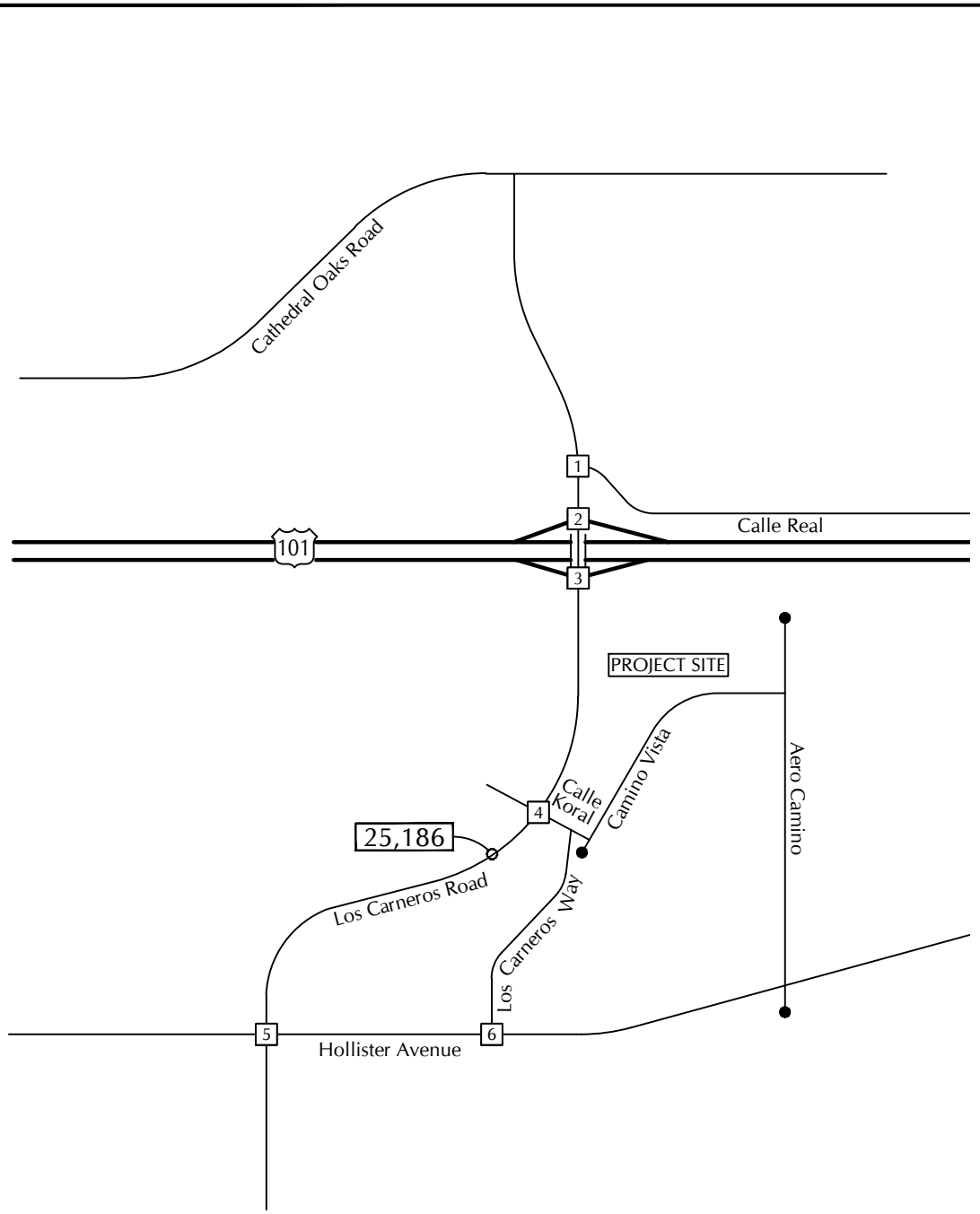


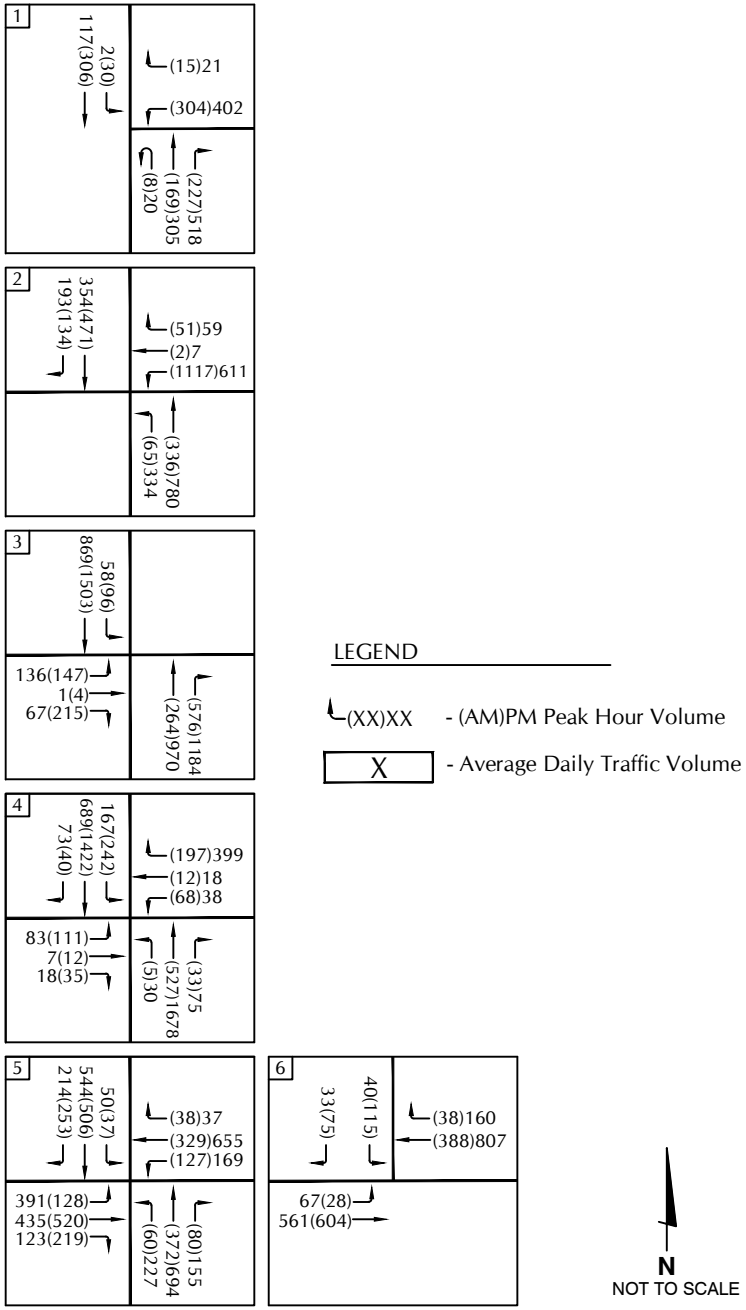
ASSOCIATED
TRANSPORTATION
ENGINEERS

CUMULATIVE TRAFFIC VOLUMES

FIGURE 7

JH - ATE#20058.01





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TRANSPORTATION
ENGINEERS

CUMULATIVE + PROJECT TRAFFIC VOLUMES

FIGURE 8

JH - ATE#20058.01

Cumulative + Project Roadway Operations

Table 8 compares the Cumulative and Cumulative + Project roadway operations and identifies locations forecast to exceed the City's LOS C standard.

Table 8
Cumulative + Project Roadway Operations

Roadway Segment	Average Daily Trips				Exceeds LOS C?
	Acceptable Capacity(a)	Cumulative	Project Added	Cumulative + Project	
Los Carneros Road s/o Calle Koral	34,000	24,800	386	25,186	No

(a) Acceptable Capacity equates to LOS C standard.

As shown in Table 8, the study-area roadways are forecast to carry volumes within their Acceptable Capacity ratings with Cumulative and Cumulative + Project traffic. Thus, the Project would be consistent with the City's LOS C standard for roadways.

Cumulative + Project Intersection Operations

Cumulative and Cumulative + Project levels of service were calculated for the study-area intersections assuming the traffic volumes presented on Figures 7 and 8. Tables 9 and 10 compare the Cumulative and Cumulative + Project levels of service and identify locations forecast to exceed the City's LOS C standard.

Table 9
Cumulative + Project Intersection Operations – AM Peak Hour

Intersection	Cumulative		Cumulative + Project		Exceeds LOS C?
	ICU/Delay	LOS	ICU/Delay	LOS	
#1 - Los Carneros Road/Calle Real(a)	6.7 Sec.	A	6.8 Sec.	A	No
#2 - Los Carneros Road/US 101 NB Ramps	0.674	B	0.685	B	No
#3 - Los Carneros Road/US 101 SB Ramps	0.668	B	0.675	B	No
#4 - Los Carneros Road/Calle Koral	0.640	B	0.640	B	No
#5 - Los Carneros Road/Hollister Avenue	0.556	A	0.568	A	No
#6 - Hollister Avenue/Los Carneros Way	0.325	A	0.325	A	No

(a) Roundabout intersection LOS based on average delay per vehicle in seconds.

Table 10
Cumulative + Project Intersection Operations – PM Peak Hour

Intersection	Cumulative		Cumulative + Project		Exceeds LOS C?
	ICU/Delay	LOS	ICU/Delay	LOS	
#1 - Los Carneros Road/Calle Real(a)	10.6 Sec.	B	10.8 Sec.	B	No
#2 - Los Carneros Road/US 101 NB Ramps	0.633	B	0.660	B	No
#3 - Los Carneros Road/US 101 SB Ramps	0.765	C	0.777	C	No
#4 - Los Carneros Road/Calle Koral	0.701	C	0.723	C	No
#5 - Los Carneros Road/Hollister Avenue	0.675	B	0.683	B	No
#6 - Hollister Avenue/Los Carneros Way	0.435	A	0.450	A	No

(a) Roundabout intersection LOS based on average delay per vehicle in seconds.

The data presented in Tables 9 and 10 show that the study-area intersections are forecast to operate at LOS C or better under Cumulative and Cumulative + Project conditions. Thus, the Project would be consistent with the City's LOS C standard for intersections.

LOS CARNEROS ROAD/CALLE KORAL – LEFT-TURN PHASING

The Los Carneros Road/Calle Koral intersection is signalized and includes separate left-turn phasing (green arrow) for turning left from Los Carneros Road onto Calle Koral. However, the signals for the Calle Koral approaches do not currently include separate left-turn phasing. The need for left-turn phasing on Calle Koral was evaluated using the methods recommended by the Federal Highways Administration (FHWA).[1] A copy of the evaluation criteria is included in the Technical Appendix for reference.

The evaluation criteria include accident analysis, sight distances, vehicle speeds, traffic volumes, and other relevant information specific to the intersection. The first step in the evaluation process is to determine if the number of accidents that could have been avoided by provision of separate left-turn phasing meets or exceed the minimum threshold. The City provided accident data for the intersection that includes the 3-year period of 2017, 2018, and 2019. According to the evaluation criteria, the minimum number of potential correctable accidents is 13 during a 3-year period. The data show that there were 0 accidents related to vehicles turning left from Calle Koral. Adequate sight distances are present for the left turns, and vehicle speeds and traffic volumes are below the minimum criteria. Thus, separate left-turn phasing (green arrows) on Calle Koral is not warranted based on the FHWA evaluation criteria. It is recommended that the City continue to monitor traffic conditions at the intersection and the need for left-turn phasing.

[1] TRAFFIC SIGNAL TIMING MANUAL, Publication Number: FHWA-HOP-08-024, Federal Highways Administration, June 2008.

POTENTIAL CONSTRUCTION IMPACTS

The EIR included an evaluation of potential impacts that would be generated by construction of the Project, with soil exports generating the highest traffic during the construction phase. Based on information provided by the City, the soil export activity would result in a total of 51 passenger car equivalent (PCE) trips during the AM and PM peak hour periods and the EIR concluded that that traffic was found to be insignificant (would not significantly impact levels of service to the streets and intersection in the study area) based on the older 2013 traffic counts).

As shown in Table 3, the proposed Project is forecast to generate 196 trips during the AM and PM peak hour periods and the study-area roadways and intersections are forecast to operate at LOS C or better under Existing + Project and Cumulative + Project conditions (see Tables 5-7). Thus, it can be concluded that the study-area roadways and intersections would operate at LOS C or better with the 51 trips that would be generated during the AM and PM peak hours during the construction phase of the Project.

■ ■ ■

REFERENCES AND PERSONS CONTACTED

Associated Transportation Engineers

Richard L. Pool, PE, Principal Engineer
Scott A. Schell, Principal Transportation Planner
Dan Dawson, Supervising Transportation Planner
Jiho Oh, Transportation Engineer

References

Final Traffic Impact Analysis for the Goleta Hotel Project, Pinnacle Traffic Engineering, November 2019.

Highway Capacity Manual, Transportation Research Board, 6th Edition, 2016.

Traffic, Circulation, and Parking Study for the 6210 Hollister Avenue Project, Associated Transportation Engineers, September 2016.

Trip Generation, Institute of Transportation Engineers, 10th Edition, 2017.

Updated Traffic, Circulation, and Parking Study for the Heritage Ridge Project, Associated Transportation Engineers, January 2016.

Persons Contacted

Dennis Lammers, City of Goleta
Jaren Nuzman, TK Consulting, Inc.

TECHNICAL APPENDIX

CONTENTS:

LEVEL OF SERVICE DEFINITIONS

CITY OF GOLETA ROADWAY DESIGN CAPACITIES

TRAFFIC COUNT DATA

PROJECT TRIP GENERATION WORKSHEET

CITY OF GOLETA CUMULATIVE PROJECT LIST

LEFT-TURN PHASING CRITERIA & ACCIDENT DATA

INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

Reference 1 - Los Carneros Road/Calle Real
Reference 2 - Los Carneros Road/US 101 NB Ramps
Reference 3 - Los Carneros Road/US 101 SB Ramps
Reference 4 - Los Carneros Road/Calle Koral
Reference 5 - Los Carneros Road/Hollister Avenue
Reference 6 - Hollister Avenue/ Los Carneros Way

LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE DEFINITIONS

"Levels of Service" (LOS) A through F are used to rate roadway and intersection operating conditions, with LOS A indicating very good operations and LOS F indicating poor operations. More complete level of service definitions are:

LOS	Definition
A	Low volumes; primarily free flow operations. Density is low and vehicles can freely maneuver within traffic stream. Drivers can maintain their desired speeds with little or no delay.
B	Stable flow with potential for some restriction of operating speeds due to traffic conditions. Maneuvering is only slightly restricted. Stopped delays are not bothersome and drivers are not subject to appreciable tension.
C	Stable operations, however the ability to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail but adverse signal coordination or longer queues cause delays.
D	Approaching unstable traffic flow where small increases in volume could cause substantial delays. Most drivers are restricted in their ability to maneuver and their selection of travel speeds. Comfort and convenience are low but tolerable.
E	Operations characterized by significant approach delays and average travel speeds of one-half to one-third of free flow speed. Flow is unstable and potential for stoppages of brief duration. High signal density, extensive queuing, or signal progression/timing are the typical causes of delays.
F	Forced flow operations with high approach delays at critical signalized intersections. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of downstream congestion.

CITY OF GOLETA ROADWAY DESIGN CAPACITIES

Table 1
Goleta Roadway Classifications

Classification	Purpose and Design Factors	Design Capacity		LOS C Threshold[1]	
		2 Lane	4 Lane	2 Lane	4 Lane
Primary 1	Roadways designed to serve primarily non-residential development. Roadways would have a minimum of 12-foot wide lanes with shoulders and few curb cuts. Signals would be spaced at 1 mile or more intervals.	19,900	47,760	15,900	38,200
Primary 2	Roadways which serve a high proportion of non-residential development with some residential lots and few or no driveway curb cuts. Lane widths are a minimum of 12 feet with well spaced curb cuts. Signals intervals at a minimum of 1/2 mile.	17,900	42,480	14,300	34,000
Primary 3	Roadways designed to serve non-residential development and residential development. More frequent driveways are acceptable. Potential signal intervals of 1/2-1/4 mile.	15,700	37,680	12,500	30,100
Secondary 1	Roadways designed to primarily serve non-residential development and large lot residential development with well spaced driveways. Roadways would be 2 lanes with infrequent driveways. Signal would generally occur at intersections with primary roads.	11,600	NA	9,300	NA
Secondary 2	Roadways designed to serve residential and non-residential land uses. Roadways would be 2 lanes with close to moderately spaced driveways.	9,100	NA	7,300	NA
Secondary 3	Roadways designed to primarily serve residential with small to medium lots. Roadways are 2 lanes with more frequent driveways.	7,900	NA	6,300	NA

[1] Defined as 80% of Design Capacity.
Source: Santa Barbara County Public Works, Transportation Division.

TRAFFIC COUNT DATA

Prepared by NDS/ATD

VOLUME

Los Carneros Rd Bet. Raytheon Dr & Cremona Dr

Day: Thursday
Date: 10/10/2019

City: Goleta
Project #: CA19_2077_008

DAILY TOTALS	NB	SB	EB	WB	Total
	11,433	12,062	0	0	23,495

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	16		32				48		12:00	224		164				388	
0:15	20		19				39		12:15	208		173				381	
0:30	12		17				29		12:30	194		182				376	
0:45	15	63	12	80			27	143	12:45	178	804	241	760			419	1564
1:00	12		7				19		13:00	193		270				463	
1:15	7		12				19		13:15	149		224				373	
1:30	3		13				16		13:30	170		196				366	
1:45	9	31	7	39			16	70	13:45	160	672	188	878			348	1550
2:00	5		4				9		14:00	217		169				386	
2:15	7		4				11		14:15	199		177				376	
2:30	3		4				7		14:30	220		164				384	
2:45	6	21	7	19			13	40	14:45	172	808	182	692			354	1500
3:00	6		3				9		15:00	224		189				413	
3:15	5		3				8		15:15	237		168				405	
3:30	3		8				11		15:30	268		184				452	
3:45	8	22	10	24			18	46	15:45	254	983	186	727			440	1710
4:00	5		9				14		16:00	255		156				411	
4:15	5		12				17		16:15	289		169				458	
4:30	5		24				29		16:30	339		159				498	
4:45	8	23	24	69			32	92	16:45	320	1203	167	651			487	1854
5:00	9		24				33		17:00	437		180				617	
5:15	8		23				31		17:15	417		217				634	
5:30	31		41				72		17:30	300		177				477	
5:45	26	74	78	166			104	240	17:45	253	1407	188	762			441	2169
6:00	27		67				94		18:00	240		202				442	
6:15	30		70				100		18:15	226		213				439	
6:30	42		93				135		18:30	250		162				412	
6:45	52	151	147	377			199	528	18:45	205	921	160	737			365	1658
7:00	59		137				196		19:00	179		160				339	
7:15	118		191				309		19:15	128		147				275	
7:30	174		209				383		19:30	116		142				258	
7:45	143	494	312	849			455	1343	19:45	120	543	152	601			272	1144
8:00	112		321				433		20:00	126		137				263	
8:15	121		292				413		20:15	121		145				266	
8:30	110		333				443		20:30	86		129				215	
8:45	118	461	291	1237			409	1698	20:45	71	404	123	534			194	938
9:00	132		272				404		21:00	85		124				209	
9:15	107		210				317		21:15	74		135				209	
9:30	117		154				271		21:30	74		117				191	
9:45	124	480	125	761			249	1241	21:45	66	299	109	485			175	784
10:00	118		111				229		22:00	54		104				158	
10:15	100		129				229		22:15	59		87				146	
10:30	130		134				264		22:30	58		76				134	
10:45	135	483	130	504			265	987	22:45	67	238	69	336			136	574
11:00	145		140				285		23:00	60		71				131	
11:15	150		125				275		23:15	40		58				98	
11:30	200		118				318		23:30	36		38				74	
11:45	181	676	188	571			369	1247	23:45	36	172	36	203			72	375
TOTALS		2979		4696				7675	TOTALS		8454		7366				15820
SPLIT %		38.8%		61.2%				32.7%	SPLIT %		53.4%		46.6%				67.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	11,433	12,062	0	0	23,495

AM Peak Hour	11:30	7:45			7:45	PM Peak Hour	16:30	12:45			16:30
AM Pk Volume	813	1258			1744	PM Pk Volume	1513	931			2236
Pk Hr Factor	0.907	0.944			0.958	Pk Hr Factor	0.866	0.862			0.882
7 - 9 Volume	955	2086			3041	4 - 6 Volume	2610	1413			4023
7 - 9 Peak Hour	7:30	7:45			7:45	4 - 6 Peak Hour	16:30	17:00			16:30
7 - 9 Pk Volume	550	1258			1744	4 - 6 Pk Volume	1513	762			2236
Pk Hr Factor	0.790	0.944			0.958	Pk Hr Factor	0.866	0.878			0.882

Prepared by National Data & Surveying Services

Los Carneros Rd & Calle Real

Peak Hour Turning Movement Count

ID: 19-02078-016
City: Goleta

Day: Thursday
Date: 10/10/2019

Los Carneros Rd

SOUTHBOUND

PEAK HOURS								COUNT PERIODS
07:45 AM - 08:45 AM	AM	0	298	30	0	170	AM	07:00 AM - 09:00 AM
NONE	NOON	0	0	0	0	0	NOON	NONE
04:45 PM - 05:45 PM	PM	0	101	2	0	312	PM	04:00 PM - 06:00 PM

CONTROL: Signalized

TEV	1020 AM	0 NOON	1330 PM
PHF	0.90		0.85

EASTBOUND (Calle Real)

AM	NOON	PM	
0	0	0	⇦
0	0	0	↶ 0
0	0	0	→ 0
0	0	0	↷ 0
AM	NOON	PM	

WESTBOUND (Calle Real)

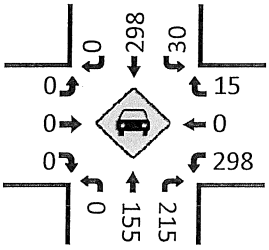
PM	NOON	AM	
21	0	15	0 ↶
0	0	0	1 ←
387	0	298	0 ↙
0	0	1	0 ↷
510	0	246	⇨
PM	NOON	AM	

NORTHBOUND

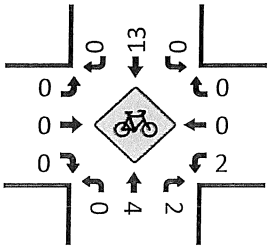
PM	508	20	0	291	508	PM
NOON	0	0	0	0	0	NOON
AM	604	8	0	155	215	AM

Los Carneros Rd

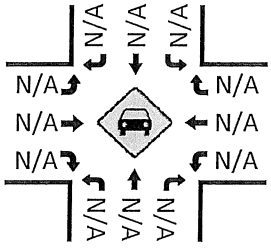
Total Vehicles (AM)



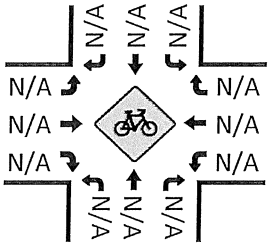
Bikes (AM)



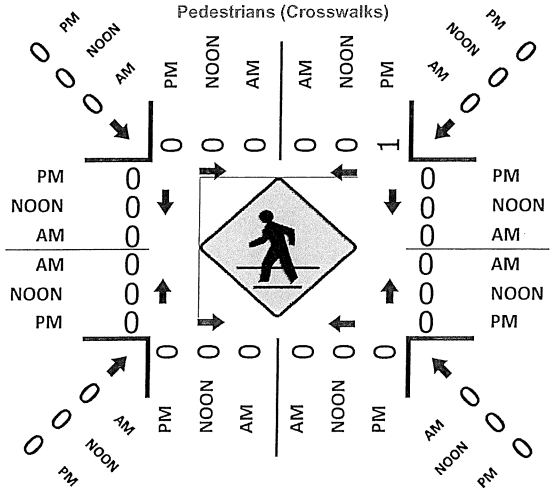
Total Vehicles (Noon)



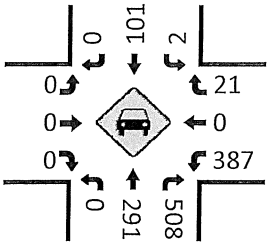
Bikes (NOON)



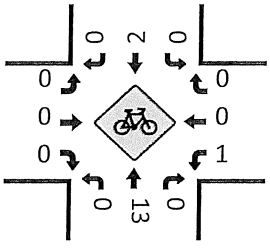
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

Los Carneros Rd & El Camino Real NB Ramps

Peak Hour Turning Movement Count

ID: 19-02078-015
City: Goleta

Day: Thursday
Date: 10/10/2019

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Los Carneros Rd — SOUTHBOUND

AM	133	459	0	0	361	AM
NOON	0	0	0	0	0	NOON
PM	190	326	0	0	815	PM

0.5 1.5 0 0

El Camino Real NB Ramps — EASTBOUND

AM	NOON	PM	
183	0	513	⇦
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

CONTROL

Signalized

TEV	2055 AM	0 NOON	2152 PM
PHF	0.94		0.88

El Camino Real NB Ramps — WESTBOUND

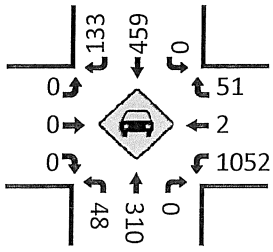
PM	NOON	AM	
59	0	51	0.3
7	0	2	0.3
498	0	1052	1.3
0	0	0	0
0	0	0	⇨
PM	NOON	AM	

0 1 2 0

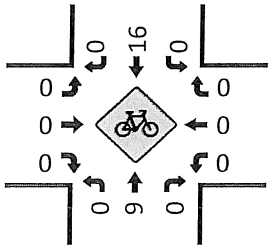
Los Carneros Rd — NORTHBOUND

PM	824	0	316	756	0	PM
NOON	0	0	0	0	0	NOON
AM	1511	0	48	310	0	AM

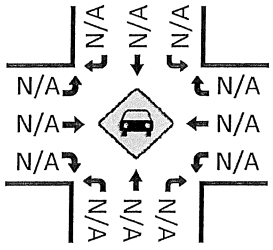
Total Vehicles (AM)



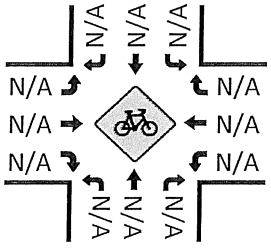
Bikes (AM)



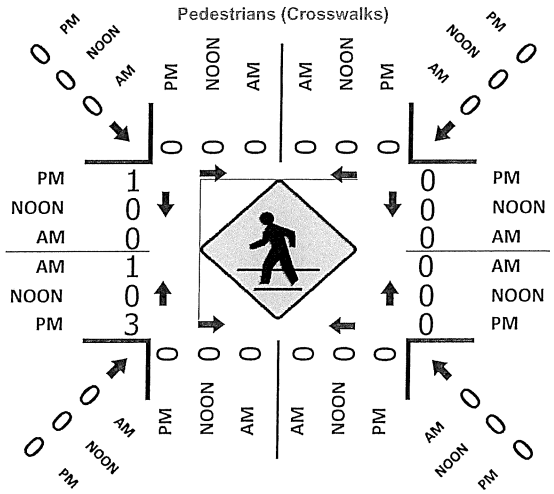
Total Vehicles (Noon)



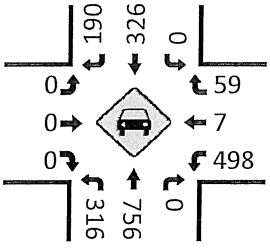
Bikes (NOON)



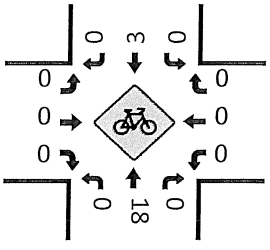
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

Los Carneros Rd & El Camino Real SB Ramps

Peak Hour Turning Movement Count

ID: 19-02078-014
City: Goleta

Day: Thursday
Date: 10/10/2019

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

Los Carneros Rd

SOUTHBOUND

AM	0	1426	96	0	368	AM
NOON	0	0	0	0	0	NOON
PM	0	728	58	0	1056	PM
	0.5	0.5	1	0		

El Camino Real SB Ramps — EASTBOUND

AM	NOON	PM	
0	0	0	
0	0	0	0
144	0	134	0.5
4	0	1	0.5
201	0	50	1
AM	NOON	PM	

WESTBOUND — El Camino Real SB Ramps

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1150	0	565	
PM	NOON	AM	

CONTROL

Signalized

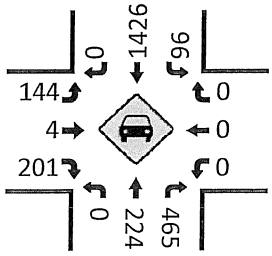
TEV	2560 AM	0 NOON	2984 PM
PHF	0.93		0.91

	0	0	2	1	
PM	778	0	0	922	1091 PM
NOON	0	0	0	0	0 NOON
AM	1627	0	0	224	465 AM

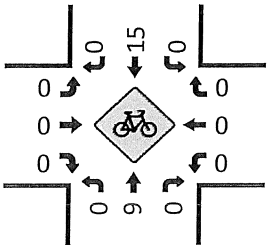
NORTHBOUND

Los Carneros Rd

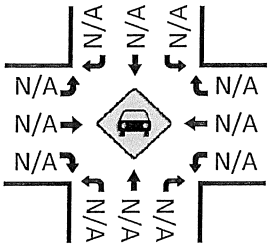
Total Vehicles (AM)



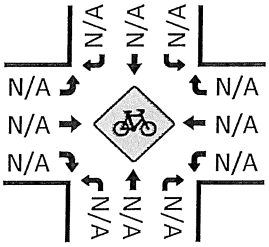
Bikes (AM)



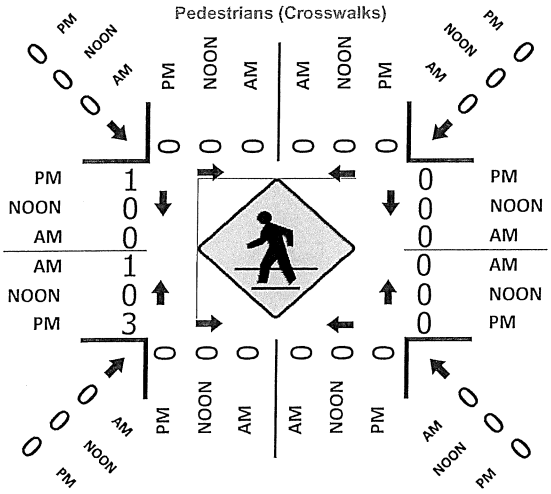
Total Vehicles (Noon)



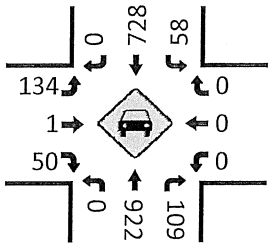
Bikes (NOON)



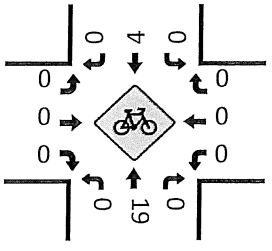
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

Los Carneros Rd & Calle Koral

Peak Hour Turning Movement Count

ID: 19-02078-013
City: Goleta

Day: Thursday
Date: 10/10/2019

Los Carneros Rd

SOUTHBOUND

PEAK HOURS								COUNT PERIODS
07:45 AM - 08:45 AM	AM	40	1352	221	0	684	AM	07:00 AM - 09:00 AM
NONE	NOON	0	0	0	0	0	NOON	NONE
04:30 PM - 05:30 PM	PM	73	616	92	0	2019	PM	04:00 PM - 06:00 PM

CONTROL: Signalized

		AM	NOON	PM
TEV		2427	0	2952
PHF		0.94		0.91

EASTBOUND (Calle Koral)

AM	NOON	PM	
57	0	120	
0	0	0	0
111	0	83	1
12	0	7	1
35	0	18	0
AM	NOON	PM	

WESTBOUND (Calle Koral)

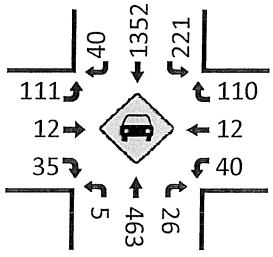
	PM	NOON	AM
1	365	0	110
1	18	0	12
1	27	0	40
0	0	0	0
	151	0	259
	PM	NOON	AM

NORTHBOUND

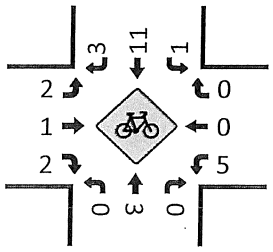
PM	662	1	29	1571	52	PM
NOON	0	0	0	0	0	NOON
AM	1427	0	5	463	26	AM
		0	1	3	0	

Los Carneros Rd

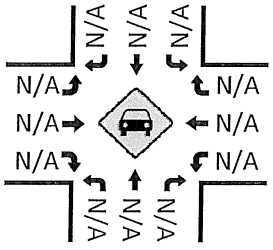
Total Vehicles (AM)



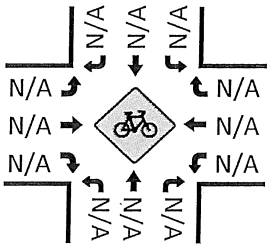
Bikes (AM)



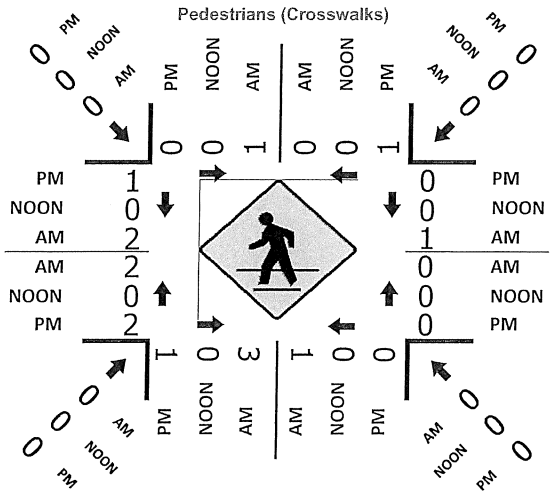
Total Vehicles (Noon)



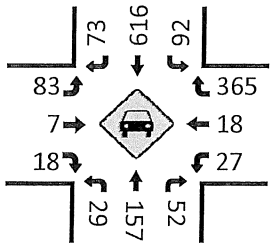
Bikes (NOON)



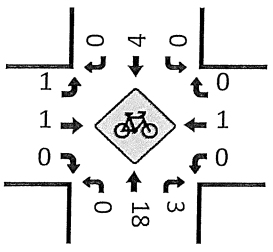
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

Los Carneros Rd & Hollister Ave/Cross Town Route

Peak Hour Turning Movement Count

ID: 19-02078-012
City: Goleta

Day: Thursday
Date: 10/10/2019

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

Los Carneros Rd — SOUTHBOUND

AM	209	464	37	0	481	AM
NOON	0	0	0	0	0	NOON
PM	155	511	50	0	1016	PM
	1	2	1	0		

Hollister Ave/Cross Town Route — EASTBOUND

AM	NOON	PM	
543	0	982	
0	0	0	0
99	0	330	2
490	0	391	2
215	0	115	0
AM	NOON	PM	

CONTROL

Signalized

TEV	2404 AM	0 NOON	3362 PM
PHF	0.91		0.89

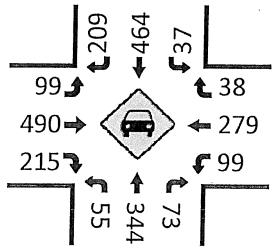
Hollister Ave/Cross Town Route — WESTBOUND

PM	NOON	AM	
0	37	0	38
2	610	0	279
1	156	0	99
0	0	0	1
	581	0	601
PM	NOON	AM	

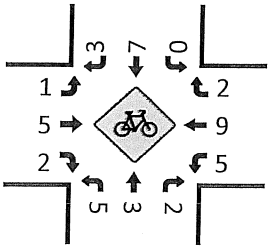
Los Carneros Rd — NORTHBOUND

	0	2	2	1		
PM	783	1	217	649	140	PM
NOON	0	0	0	0	0	NOON
AM	779	1	55	344	73	AM

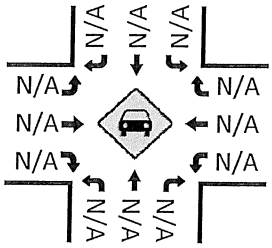
Total Vehicles (AM)



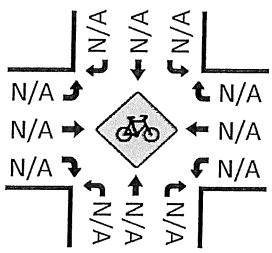
Bikes (AM)



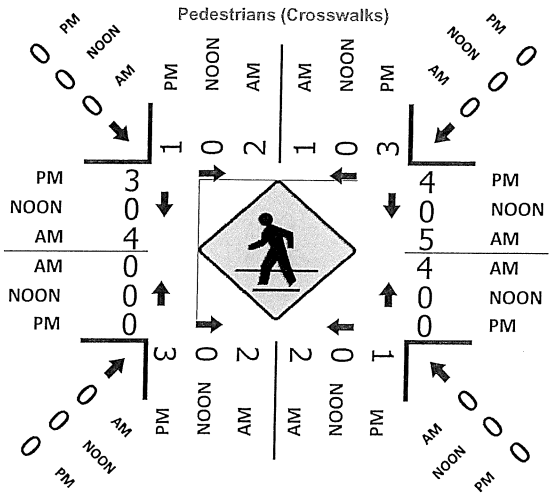
Total Vehicles (Noon)



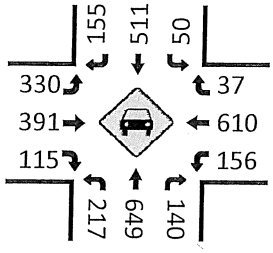
Bikes (NOON)



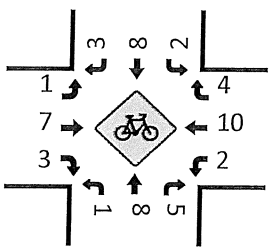
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



PROJECT TRIP GENERATION WORKSHEET

Associated Transportation Engineers
Trip Generation Worksheet

HERITAGE RIDGE UPDATE - TRIP GENERATION WITH AFFORDABLE RATES

Use	Size	ADT		AM PEAK HOUR						PM PEAK HOUR					
		Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips
Market Rate Apartments(a)	228 DU	7.32	1,669	0.65	148	17%	25	83%	123	0.66	150	70%	105	30%	45
Affordable Apartments(b)	63 DU	5.20	328	0.46	29	17%	5	83%	24	0.47	30	70%	21	30%	9
Affordable Senior Apartments(c)	41 DU	2.63	108	0.14	6	35%	2	65%	4	0.18	7	55%	4	45%	3
Public Park(d)	2 AC	50.00	100	6.50	13	50%	7	50%	6	4.50	9	50%	5	50%	4
Totals			**2,205**		**196**		**39**		**157**		**196**		**135**		**61**

(a) ADT based on ITE rates for Multifamily Housing (Low Rise - ITE #220). AM & PM rates based on local study.
(b) Trip generation based on adjusted ITE rates for Multifamily Housing - (Low Rise - ITE #220). Study data shows that afforable units generate 71% of non-afforable units.
(c) Trip generation based on adjusted ITE rates for Senior Adult Housing - Attached (ITE #252). Study data shows that afforable units generate 71% of non-afforable units.
(d) Trip generation based on SANDAG rates for City Public Park.

CITY OF GOLETA CUMULATIVE PROJECT LIST

Cumulative Forecasting
Trip Generation Worksheet (#2005801)

CITY OF GOLETA CUMULATIVE PROJECT LIST - FEBRUARY 2021

Cumulative Project	Size	ADT		A.M. PEAK HOUR						P.M. PEAK HOUR					
		Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips
1 Cox Communication (a)	-795 SF	-	-44	-	-6	-	-5	-	-1	-	-5	-	0	-	-5
2 Cortona Apartments	176 Units	7.32	1,288	0.46	81	23%	19	77%	62	0.56	99	63%	62	37%	37
3 Beach Hazard Removal(b)	NA		NA		NA		NA		NA		NA		NA		NA
4 PRC 421 Piers(b)	NA		NA		NA		NA		NA		NA		NA		NA
5 Platform Holly Decommission(b)	NA		NA		NA		NA		NA		NA		NA		NA
6 Citrus Village	10 Units	7.32	73	0.46	5	23%	1	77%	4	0.56	6	63%	4	37%	2
7 Winslow Old Town Village(c)	175 Units	-	1,125	-	93	-	27	-	66	-	106	-	63	-	43
8 Cabrillo Business Park(d)	44,924 SF	11.26	506	0.42	19	75%	14	25%	5	0.49	22	15%	3	85%	19
9 Cabrillo Business Park(d)	16,750 SF	11.26	189	0.42	7	75%	5	25%	2	0.49	8	15%	1	85%	7
10 Hollister Village Apartments	27 Units	7.32	198	0.46	12	23%	3	77%	9	0.56	15	63%	9	37%	6
11 130 Robin Hill - Light Industrial	1,414 SF	4.96	7	0.70	1	88%	1	12%	0	0.63	1	13%	0	87%	1
12 Cottage Somera Medical Office Building(e)	20,000 SF	-	615	-	41	-	32	-	9	-	60	-	17	-	43
13 Highway Recycling	1 Yard	-	22	-	5	-	5	-	0	-	5	-	0	-	5
14 Ellwood Mesa Trail Restoration(b)	NA		NA		NA		NA		NA		NA		NA		NA
15 Ellwood Tree Safety(b)	NA		NA		NA		NA		NA		NA		NA		NA
16 NRG Battery Storage (h)	NA		10		2		2		0		2		0		2
17 Cabrillo Business Park(d)	23,882 SF	11.26	269	0.42	10	75%	8	25%	2	0.49	12	15%	2	85%	10
18 Cabrillo Business Park(d)	98,780 SF	11.26	1,112	0.42	41	75%	31	25%	10	0.49	48	15%	7	85%	41
19 Kellogg Crossing Self Storage	1,043 Units	-	148	-	8	60%	5	40%	3	0.56	15	47%	7	53%	8
20 Bacara Beach House Relation	NA		NA		NA		NA		NA		NA		NA		NA
22 Fuel Depot(f)	2,396 SF	-	226	-	13	-	7	-	6		13	-	6	-	7
23 6045 Stow Canyon Rd Synagogue(g)	6,936 SF	-	75	-	15	-	8	-	7	-	0	-	0	-	0
24 Log Me In Parcel Map	NA		NA		NA		NA		NA		NA		NA		NA
25 Kellogg Auto Parcel Map	4,735 SF	9.74	46	1.16	5	86%	4	14%	1	1.15	5	16%	1	84%	4
26 Ellwood Butterfly Habitat	NA		NA		NA		NA		NA		NA		NA		NA
27 Dara Road GP Amendment	NA		NA		NA		NA		NA		NA		NA		NA
28 Shelby(h)	60 Units	-	574	-	45	-	11	-	34	-	61	-	39	-	22
29 Kenwood Village(i)	60 Units	-	397	-	31	-	7	-	24	-	37	-	24	-	13
30 Goleta Battery Storage Facility	NA		10		2		2		0		2		0		2
31 Calle Real Hotel(k)	464 Units	-	1,196	-	90	-	52	-	38	-	94	-	46	-	48
32 Sywest Warehouse	70,594 SF	1.74	123	0.17	12	77%	9	23%	3	0.19	13	27%	4	73%	9
33 Sun Group GP Amendment	NA		NA		NA		NA		NA		NA		NA		NA
34 GVCH Hollipat Parking Lot	NA		NA		NA		NA		NA		NA		NA		NA
35 The Grange	1,339 SF	9.74	13	1.16	2	86%	2	14%	0	1.15	2	16%	0	84%	2
36 GCCH Aquatic Facility	NA		NA		NA		NA		NA		NA		NA		NA
37 Verizon Water Tank Antenna	NA		NA		NA		NA		NA		NA		NA		NA
38 Coromar Battery Storage	NA		NA		NA		NA		NA		NA		NA		NA
39 The Hollister Hotel(l)	NA		-52		-7		-3		-4		-6		-4		-2
40 355 Coromar Distribution Center	54,080 SF	1.74	94	0.17	9	77%	7	23%	2	0.19	10	27%	3	73%	7
41 Seymour Duncan Office	48,002 SF	9.74	468	1.16	56	86%	48	14%	8	1.15	55	16%	9	84%	46
42 Camino Real Repeal Specific Plan	NA		NA		NA		NA		NA		NA		NA		NA

(a) Cox Communication Traffic and Parking Study, ATE, March 2019.
(b) Temporary work. No significant on-going traffic generation.
(c) Old Town Village Mixed-Use Project Traffic, Circulation and Parking Study, October 2014.
(d) Trip generation based on ITE Code #760 (Research & Development).
(e) Somera Medical Building Environmental Checklist Form and Initial Study, January 2014.
(f) Fuel Depot Traffic Impact Study, ATE, June 2018.
(g) Phase I Traffic Analysis for 6045 Stow Canyon Road Project, ATE, November 2018.
(h) 7400 Cathedral Oaks Road Project Traffic and Circulation Study, ATE, February 2011.
(i) Kenwood Village Project EIR Transportation and Traffic Study, ATE, 2015.
(j) Heritage Ridge Residential Project EIR, ATE, 2015.
(k) Goleta Real Hotel TIA, Pinnacle Traffic Engineering.
(l) the 5392-5400 Hollister Avenue Traffic Study, ATE, 2019.

City of Goleta Cumulative Projects List (Updated February 25, 2021)

Case #	Project	Address	APN	Land Use	Parcel Size (acres)	Project Description	Planner	Status	Adjacent to creek or tributary?	ESHA Setback Reduction Requested or Approved?
PROJECTS UNDER CONSTRUCTION										
18-093-DPRV-DRB	Cox Communications Building	22 South Fairview Avenue	071-021-001; -044	Commercial/ Industrial	2.31	Removal of two buildings, and the construction of a new 6,519 square foot Telecommunications building.	M. Chang	Under Construction	No	N/A
09-140-DP (17-023-DPAM)	Cortona Apartments	6830 Cortona Drive	073-140-016	Residential	8.82	176 residential units.	M. Chang	Under Construction	No	N/A
10-083-LUP, 12-165-LUP, & CDP No. E-02-024-A3	Beach Hazards Removal	N/A	079-200-012, -013, 079-210-059, -069, -013, -014, &, -015,	Visitor Serving/ Passive & Active Open Space	N/A	Removal of remnant oil and gas infrastructure hazards along City coastline.	A. Newkirk	Under Construction	No	No
MOU Agreement No. 2018-081	PRC 421 Piers	Pacific Ocean- Intertidal Zone.	079-210-059	Open Space- Active Recreation	192.93	Plug and abandon 2 existing oil wells.	J. Ritterbeck	Plugging Complete, Abandonment Forthcoming	No	TBD
MOU Agreement No. 2018-081	Platform Holly Decommissioning	Pacific Ocean- 2 miles from shore.	N/A	N/A	N/A	Plug and abandon 32 existing oil wells.	J. Ritterbeck	In Progress	No	No
04-226-TM, -DP	Citrus Village	7388 Calle Real	077-490-043	Residential	1.02	10 residential units.	C. Noddings	Under Construction	No	No
14-026-GPA, -RZ, -VTM, -DP	Winslowe (Formerly Old Town Village)	South Kellogg Avenue	071-130-02	Residential and Commercial	12.31	Mixed Use of 175 townhomes with shopkeeper/live work units.	M. Chang	Under Construction	Yes	Yes
19-031-PCR-RV-OSP (Previously 16-164-PCR-OSP)	Cabrillo Business Park, Lot 9	301 Coromar Drive	073-210-027	Office/Light Industrial	3.12	New 44,924-sf building within Cabrillo Business Park.	D. Mimick	Under Construction	No	No
19-120-PCR-RV-OSP (Previously 16-162-PCR-OSP)	Cabrillo Business Park, Lot 6	6765 Navigator Way	073-610-025	Office/Light Industrial	1.27	New 16,750-sf building within Cabrillo Business Park.	D. Mimick	Under Construction	No	No
19-123-PCR-RV-OSP (Previously 16-163-PCR-OSP)	Cabrillo Business Park, Lot 7	6759 Navigator Way	073-610-026	Office/ Light Industrial	2.11	New 31,584-sf building within Cabrillo Business Park.	D. Mimick	Under Construction	No	No
18-152-GPA, -RZ, LLA, -DPRV	Hollister Village Apartments	7000 Hollister Avenue	073-030-	Residential	1.84	27 Apartments and Park	M. Chang	Under Construction	No	No
15-107-DPRV-DRB	Site Improvements	130 Robin Hill Road	073-050-015	Industrial (Business Park)	3.00	768-sf elevator addition, and 314-sf addition to rear of building, plus a 1,100-sf new building.	B. Hiefield	Under Construction	No	No
12-091-DP	Cottage Medical Office Building	454 S. Patterson Avenue	065-090-013	Commercial	8.00	20,000 sf net new medical/dental office building.	B. Hiefield	Approved (Time Extension approved 1/13/20- 19-013-TEX)	No	No
09-133-DP; 15-177-LUP; 18-126- SCD-LUP; 19-111-PCR	Security Paving (former Highway Recycling)	909 South Kellogg Avenue	071-190-034	Industrial	11.71	Concrete and asphalt recycling facility with temporary and permanent equipment. Includes creek/SPA restoration, fencing, landscaping, trash enclosure, retaining wall, and drainage improvements.	L. Prasse/C. Noddings	Under Construction	Yes	Approved.

City of Goleta Cumulative Projects List (Updated February 25, 2021)

Case #	Project	Address	APN	Land Use	Parcel Size (acres)	Project Description	Planner	Status	Adjacent to creek or tributary?	ESHA Setback Reduction Requested or Approved?
APPROVED PROJECTS (NOT CONSTRUCTED)										
13-039-CUP	Ellwood Mesa Coastal Trails and Habitat Restoration Project	NA	079-210-024, -069, -015, -014, -013, -072, -071, -70	Open Space-Passive Recreation	252.00	Improve 7.1 miles of trails, improve 3 drainage crossings, improve 2 beach access points, and 13 acres of habitat restoration.	J. Ritterbeck	Approved by Coastal Commission	Yes	No. (Trails & Habitat Restoration allowed in ESHA)
17-089-EMP	Ellwood Tree Safety Emergency Permit and Ellwood North Restoration	N/A	079-210-069	Open Space-Passive Recreation	136.60	Emergency Tree Removal for safety reasons by habitat enhancements in monarch butterfly aggregation sites.	A. Wells	Approved by Coastal Commission	Yes	No
15-145-CUP	NRG Battery Storage	30 Las Armas Road	079-210-003	Utility	1.50	Install 1 new 500KW battery storage system.	A. Wells	Approved (Waiting for approval by SCE)	No	No
16-161-PCR-OSP	Cabrillo Business Park, Lot 5	6789 Navigator Way	073-610-024	Office/Light Industrial	1.93	New 23,882-sf building within Cabrillo Business Park.	D. Mimick	Approved	No	No
18-118-PCR-OSP	Pacific Beverage at Cabrillo Business Park	355 Coromar Drive	073-610-036	Industrial	7.60	98,780 sf warehouse/office building.	D. Mimick	Approved	No	No
19-032-DPAM	Kellogg Crossing Self Storage (Formerly Schwan Self Storage)	10 South Kellogg Avenue	071-090-082	Industrial	2.06	New 136,067 SF self storage facility containing 1,043 units.	B. McNulty/M. Chang	Approved	Yes	Yes
16-002-DPRV	Bacara Beach House Relocation	8301 Hollister Avenue	079-200-013, 079-200-012	Resort / Visitor Serving	39.17	Demolition of existing beach house and relocating/constructing new beach house.	M. Chang	Approved by the City; pending California Coastal Commission action	No	Yes
15-063-DP-DRB	Fuel Depot	180 N. Fairview Avenue	069-110-054	Commercial	0.28	2,396 sf convenience store. No changes to existing fueling stations or canopy.	D. Mimick	Approved	No	No
18-031-CUPAM,-DP-DRB; 20-0003-SCD	New 7,390-sf Synagogue	6045 Stow Canyon Road	077-140-044	Design Residential	3.29	New 7,390 SF Synagogue and 841 SF storage building, with sanctuary, event hall, office spaces, and kitchen. Revised parking, landscaping, and hardscaping also included.	C. Noddings	Approved	Yes	No
18-032-TPM-DP	Log Me In Parcel Map	7414 and 7418 Hollister Avenue	079-210-065	Industrial	12.87	Subdivision of existing lot into 3 separate lots, each containing 1 existing building , and 3 new Development Plans for each new lot.	K. Allen	Approved	No	No

City of Goleta Cumulative Projects List (Updated February 25, 2021)

Case #	Project	Address	APN	Land Use	Parcel Size (acres)	Project Description	Planner	Status	Adjacent to creek or tributary?	ESHA Setback Reduction Requested or Approved?
19-072-TPM, 19-073-DP, 19-074- DP, and 19-075-DP	Kellogg Auto Center Parcel Maps and Development Plans	425 South Kellogg Avenue, 475 South Kellogg Avenue, 495 South Kellogg Avenue, & 5611 Hollister Avenue	071-140-067, 071-140-068, 071-140-002	Commercial	7.82	Façade improvements, additions, and new structures for Toyota, Honda, and Nissan dealerships. Subdivide into 3 lots for each dealership and create development plans for each new lot.	B. Hiefield	Pending - CEQA review and Decisions	Yes	No
13-085-Plan	Ellwood Butterfly Habitat Management Plan Implementation	N/A	079-210-013, -014, -015, -019, -024, -070, -071, & -072	Open Space-Passive Recreation	13.66	Implement management program to restore Monarch aggregation sites, enhance biodiversity, and maintain public access, and other management plan activities.	A. Wells	Approved by City. Pending-California Coastal Commission approval.	Yes	No
20-0001-GPA	General Plan Amendment Initiation	625 Dara Road	069-373-055 to 062; 069-373-010 to -013 and 069-373-063	Single Family R- SF	4.23 Acres	Initiation of a General Plan Amendment to Change Land Use from Single-Family Residential (R- SF) to Multi-Family Residential (R- MD)	M. Chang	Initiation Approved	No	No
PENDING PROJECTS (Complete Applications)										
05-154-GPA, -RZ, -VTM	Shelby	7400 Cathedral Oaks Road	077-530-019	Residential	15.8 (gross); 14.88 (net)	60 residential units.	L. Prasse	Pending/On Hold - due to water availability.	Yes	Requested
08-205-GPA, -RZ, -VTM	Kenwood Village	Calle Real w/o Calaveras Avenue	077-130-066, -019; 077-141-049	Residential	10.00	60 residential units.	K. Allen	Pending/On Hold - due to water availability.	Yes	Requested
19-0201-DP; 19-0202-DPAM; 19-0202-CUP; 19-0001-SUB	Goleta Battery Energy Storage Facility	6868 & 6864 Cortona Drive	073-140-027	Utility	5.88 gross	New 60 megawatt (240 mega watt hour) battery energy storage facility; lot split into two lots	K. Allen	Pending - Environmental Review.	No	N/a
14-049-, -VTM, -DR, -CUP	Heritage Ridge	North of Calle Koral and West of Los Carneros	073-060-031 thru -043	Residential	16.20	228 residential apartments and 132 senior apartments.	M. Chang	Pending - Waiting for updated plans.	No	Requested
16-097-DP-DRB	Calle Real Hotel	5955 Calle Real	069-110-018	Commercial	1.98	132-room 3-story hotel.	B. Hiefield	Pending - Environmental Review.	No	No
17-121-DP-DRB	Sywest	907 South Kellogg Avenue	071-190-035	Industrial	11.71	70,594 sf high cube industrial building.	B. Hiefield	Pending selection of EIR Consultant - On hold per applicant.	Yes	Requested
19-0001-GPA; 20-0002-GPA	Sun Group General Plan Amendment Initiation	5631 Calle Real	069-160-056; -057	Public/Quasi-Public/Commer -cial	0.10	Change designated Land Use and Zoning from Public/Quasi-Public (P- QP) to Community Commercial (CC).	C. Noddings	Pending - Planning Commission recommended approval on September 14, 2020.	No	No

City of Goleta Cumulative Projects List (Updated February 25, 2021)

Case #	Project	Address	APN	Land Use	Parcel Size (acres)	Project Description	Planner	Status	Adjacent to creek or tributary?	ESHA Setback Reduction Requested or Approved?
19-080-DPAM	GVCH DPAM for Permanent Hollipat Parking Lot	334 S. Patterson Ave.	065-090-028	Office, Residential	9.03	Approve the existing, temporary parking lot for permanent use.	C. Noddings	Pending - CEQA review and Decisions	Yes	No
19-0203-DP	The Grange	250, 260, 270 Storke Road	073-100-032	Community Commercial	2.28	Demolition of existing pumphouse/equipment building and construction of a 1,339 SF commercial building. The addition of two new elevators to serve 250 and 270 Storke Road, as well as facade improvements.	M. Chang/B. McNulty	Pending - City issued Incomplete Letter on 1/15/2020. Waiting on applicant's resubmittal.	No	No
20-0002-DP	GVCH DPRV New Rehabilitation Pool/Center	351 S. Patterson Ave	065-090-022	Office	8.40	Interior remodel of the main hospital building and the construction of an aquatic facility in the southern parking lot.	C. Noddings	Pending - CEQA review and Decisions	No	No
PENDING PROJECTS (Incomplete Applications)										
19-115-CUP	Verizon Antenna Faux Water Tank	Fairview Avenue and Hollister Avenue	071-111-044	Commercial	481SF Area	42' Faux Water Tank for Verizon Wireless Antenna	M. Chang	Pending - Waiting on applicant to submit revised plans	No	No
19-0201-CUP	Battery Energy Storage Facility	82 Coromar Drive	073-150-012	Industrial	4.33	Conditional Use Permit for a 10- megawatt (MW)/40-megawatt hour (MWh) battery-based energy storage system within a 14,400SF portion of an existing 57,600SF building addressed as 80 Coromar Drive.	C. Noddings	Pending - City issued Incomplete Letter on 12/12/2019. Waiting on applicant's resubmittal.	No	No
18-001-RZ-DP-DRB	The Hollister: Hotel and Apartments	5392 and 5400 Hollister Avenue	071-101-002, 071-101-015	Residential / Commercial	0.92	11, 556 sf hotel, café, and 8 residential units.	M. Chang/K. Allen	Pending- City issued Incomplete Letter on 1.29.18	No	No
20-0001-PCR	Distribution/Delivery Facility	355 Coromar Drive	073-610-036	Industrial	7.60	Application for a Project Clearance within the Cabrillo Business Park Specific Plan area for a new 54,080 square foot distribution/delivery facility.	D. Mimick	Pending- City issued Incomplete Letter on 12.17.20	No	No
20-0003-TPM-DP-DPAM	Seymour Duncan Office and R and D Buildings	5385 Hollister Avenue	071-140-075	Office and Institutional	7.76	New parcel map with two proposed buildings. (1) 98,780 sf warehouse/office building; and (2) 98,780 sf warehouse/office building.	D. Mimick	Pending- City issued Incomplete Letter on 11.12.20	No	No

City of Goleta Cumulative Projects List (Updated February 25, 2021)										
Case #	Project	Address	APN	Land Use	Parcel Size (acres)	Project Description	Planner	Status	Adjacent to creek or tributary?	ESHA Setback Reduction Requested or Approved?
20-0001-SP	Camino Real Marketplace Specific Plan Initiation	7060 Marketplace Drive	073-440-013	Regional Commercial and Recreation	83.00	Repeal of existing Camino Real Marketplace Specific Plan.	D. Mimick	Pending- City issued Incomplete Letter on 6.18.20	No	No

LEFT-TURN PHASING CRITERIA & ACCIDENT DATA

4.3.5 Prohibition of Left-Turns as a Phasing Option

Prohibition of left turns on an approach is an option that has been implemented in some cases to maintain mobility at an intersection. In this case, a supplemental sign may be provided that indicates "no left turn". In some cases, these have been applied only during certain times of day, when gaps in traffic are unavailable and operation of permitted phasing may be unsafe. Figure 4-10 is an example from Toronto, Ontario, that prohibits left turns during the morning and evening periods.

Figure 4-10 Prohibited left turns by time of day

In general, the operational mode used for one left-turn movement on a road is also typically used for the other (opposing) left-turn movement. For example, if one left-turn movement is permissive, the opposing left turn is also permissive. However, this agreement is not required and the decision of mode should be movement-specific based on factors such as sight distance, volumes, number of turning lanes, number of opposing lanes, and leading vs lagging left turn operation.

4.3.6 Guidelines for Selecting Left-Turn Phasing

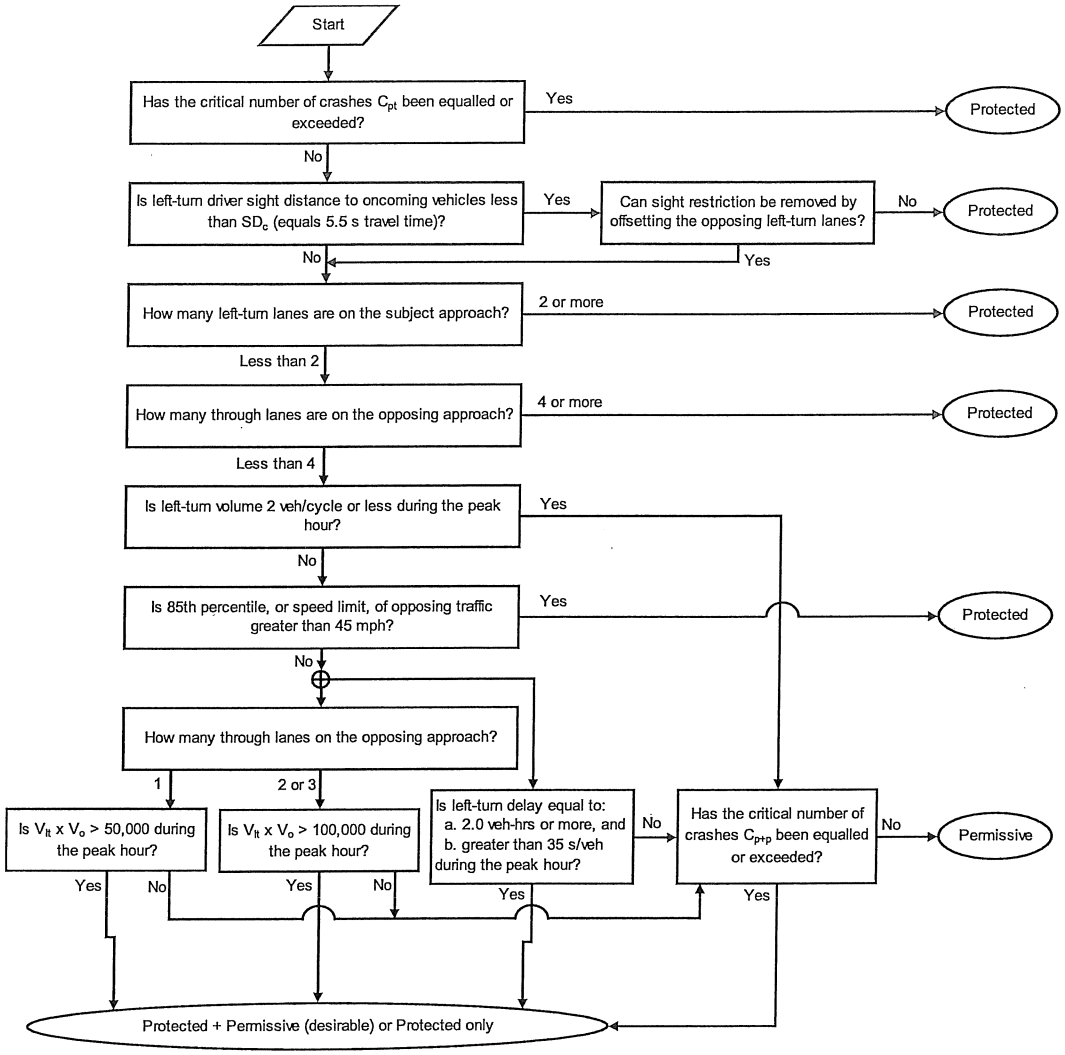
A variety of guidelines exist that have been developed to indicate conditions where the benefits of a left-turn phase typically outweigh its adverse impact to intersection operation. Many of these guidelines indicate that a left-turn phase can be justified based on consideration of several factors that ultimately tie back to the operational or safety benefits derived. These factors include:

- Left-turn and opposing through volumes
- Number of opposing through lanes
- Cycle length
- Speed of opposing traffic
- Sight distance
- Crash history

The flowchart shown in Figure 4-11 can be used to assist in the determination of whether a left-turn phase is needed and whether the operational mode should be protected or protected-permissive.

These guidelines were derived from a variety of sources (*8*;*9*). Application of the flowchart requires the separate evaluation of each left-turn movement on the subject road.

Figure 4-11 Guidelines for determining the potential need for a left-turn phase



Number of Left-turn Movements on Subject Road	Period During Which Crashes are Considered (years)	Critical Left-Turn-Related Crash Count When Considering Protected-only, C_{pt} (crashes/period)	When Considering Prot.+Perm, C_{p+p} (crashes/period)
One	1	6	4
One	2	11	6
One	3	14	7
Both	1	11	6
Both	2	18	9
Both	3	26	13

Oncoming Traffic Speed Limit (mph)	Minimum Sight Distance to Oncoming Vehicles, SD_c (ft)
25	200
30	240
35	280
40	320
45	360
50	400
55	440
60	480

Variables

V_{lt} = left-turn volume on the subject approach, veh/h

V_o = through plus right-turn volume on the approach opposing the subject left-turn movement, veh/h

Source: Adapted from (Kell and Fullerton, 1998; Orcutt, 1993; Traffic Engineering Manual, 1999).

City of Goleta
Traffic Engineering Department

From 1/1/2015 to 12/31/2019

Total Collisions: 15
Injury Collisions: 8
Fatal Collisions: 0

Collision Summary Report

3/25/21

LOS CARNEROS RD & CALLE KORAL

15-906 1/17/2015 21:47 Saturday LOS CARNEROS RD CALLE KORAL
0' Direction: Not State Dark - Street Light Clear Pty at Fault:1
Hit Object Fixed Object Unsafe Lane Change
21658A Hit & Rug: No Property Damage Only # Inj: 0 # Killed: 0
Party 1 Driver South Passing Other Vehicle
Age: 59
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Lap/Shoulder Harness Used Cell Phone Not In Use
Party 2 Driver South Proceeding Straight
Age: 17
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Lap/Shoulder Harness Used Cell Phone Not In Use

15-6557 4/29/2015 06:15 Wednesday LOS CARNEROS RD CALLE KORAL
0' Direction: Not State Dusk - Dawn Clear Pty at Fault:1
Broadside Other Motor Vehicle Traffic Signals and Signs
21453A Hit & Rug: No Property Damage Only # Inj: 0 # Killed: 0
Party 1 Driver North Proceeding Straight
Age: 31
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Other
Lap/Shoulder Harness Used Cell Phone Not In Use
Party 2 Driver East Making Left Turn
Age: 20
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Violation
Lap/Shoulder Harness Used Cell Phone Not In Use

15-10803 7/13/2015 15:43 Monday CALLE KORAL LOS CARNEROS RD
29' Direction: East Daylight Clear Pty at Fault:1
Rear-End Other Motor Vehicle Unsafe Speed
22350 Hit & Rug: No Property Damage Only # Inj: 0 # Killed: 0
Party 1 Driver West Proceeding Straight
Age: 56
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Lap/Shoulder Harness Used Cell Phone Not In Use
Party 2 Driver West Stopped In Road
Age: 42
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Lap/Shoulder Harness Used Cell Phone Not In Use

16-8256 6/16/2016 14:01 Thursday LOS CARNEROS RD CALLE KORAL
68' Direction: North Daylight Cloudy Pty at Fault:1
Rear-End Other Motor Vehicle Other Hazardous Movement
21658A Hit & Rug: No Complaint of Pain # Inj: 2 # Killed: 0
Party 1 Other South Changing Lanes
Age:
Veh Type: Passenger Car Sobriety: Impairment Not Kno Assoc Factor: Uninvolved Vehicl
Party 2 Driver South Proceeding Straight
Female Age: 19
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Lap/Shoulder Harness Used Cell Phone Not In Use
Party 3 Driver South Proceeding Straight
Female Age: 19
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Lap/Shoulder Harness Used Cell Phone Not In Use

17-4890 4/6/2017 19:55 Thursday LOS CARNEROS RD CALLE KORAL
Head-On Other Motor Vehicle Auto R/W Violation
Party 1 Driver South Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver North Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 3 Driver North Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

17-9480 6/20/2017 16:44 Tuesday LOS CARNEROS RD CALLE KORAL
Rear-End Other Motor Vehicle Unsafe Starting or Backing
Party 1 Driver South Proceeding Straight
Veh Type: Pickup Truck Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver South Stopped In Road
Veh Type: Pickup Truck Sobriety: HNBD Assoc Factor: None Apparent

18-3832 3/16/2018 15:45 Friday LOS CARNEROS RD CALLE KORAL
Rear-End Other Motor Vehicle Impeding Traffic
Party 1 Driver South Slowing/Stopping
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver South Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

18-4574 4/1/2018 08:27 Sunday LOS CARNEROS RD CALLE KORAL
Broadside Other Motor Vehicle Traffic Signals and Signs
Party 1 Driver North Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver East Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

18-4871 4/5/2018 17:40 Thursday LOS CARNEROS RD CALLE KORAL
Rear-End Other Motor Vehicle Unsafe Speed
Party 1 Driver North Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver North Slowing/Stopping
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

18-16380 11/28/2018 12:05 Wednesday LOS CARNEROS RD CALLE KORAL
Rear-End Other Motor Vehicle Unsafe Speed
Party 1 Driver South Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver South Stopped In Road
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

0' Direction: Not State Dark - Street Light Clear Pty at Fault:1
21453C Hit & Run: No Other Visible Injury # Inj: 1 # Killed: 0
Male Age: 20
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 25
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 20
Lap/Shoulder Harness Used Cell Phone Not In Use

60' Direction: North Daylight Clear Pty at Fault:1
22106 Hit & Run: No Property Damage Only # Inj: 0 # Killed: 0
Male Age: 27
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 32
Lap/Shoulder Harness Used Cell Phone Not In Use

0' Direction: Not State Daylight Raining Pty at Fault:1
22400A Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0
Female Age: 21
Lap/Shoulder Harness Used Cell Phone Not In Use
Female Age: 39
Lap/Shoulder Harness Used Cell Phone Not In Use

0' Direction: Not State Daylight Cloudy Pty at Fault:1
21453A Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0
Female Age: 24
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 23
Lap/Shoulder Harness Used Cell Phone Not In Use

30' Direction: South Daylight Clear Pty at Fault:1
22350 Hit & Run: No Property Damage Only # Inj: 0 # Killed: 0
Female Age: 20
Lap/Shoulder Harness Used Cell Phone Not In Use
Female Age: 35
Lap/Shoulder Harness Used Cell Phone Not In Use

31' Direction: North Daylight Cloudy Pty at Fault:1
22350 Hit & Run: No Property Damage Only # Inj: 0 # Killed: 0
Male Age: 78
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 64
Lap/Shoulder Harness Used Cell Phone Not In Use

LOS CARNEROS RD & CALLE KORAL

18-17236 12/17/2018 09:01 Monday LOS CARNEROS RD CALLE KORAL
Rear-End Other Motor Vehicle Unsafe Speed
Party 1 Driver South Slowing/Stopping
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver South Stopped In Road
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

18-17249 12/17/2018 14:14 Monday LOS CARNEROS RD CALLE KORAL
Rear-End Other Motor Vehicle Unsafe Speed
Party 1 Driver South Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver South Stopped In Road
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 3 Driver South Stopped In Road
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

19-463 1/12/2019 20:42 Saturday LOS CARNEROS RD CALLE KORAL
Broadside Other Motor Vehicle Traffic Signals and Signs
Party 1 Driver North Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver East Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

19-3909 3/29/2019 12:44 Friday LOS CARNEROS RD CALLE KORAL
Rear-End Other Motor Vehicle Unsafe Speed
Party 1 Driver South Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver South Stopped In Road
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

19-8421 7/3/2019 22:52 Wednesday LOS CARNEROS RD CALLE KORAL
Broadside Other Motor Vehicle Traffic Signals and Signs
Party 1 Driver North Proceeding Straight
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent
Party 2 Driver South Making Left Turn
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent

0' Direction: Not State Daylight Raining Pty at Fault:1
22350 Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0
Male Age: 51
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 66
Lap/Shoulder Harness Used Cell Phone Not In Use

0' Direction: Not State Daylight Clear Pty at Fault:1
22350 Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0
Male Age: 20
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 41
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 36
Lap/Shoulder Harness Used Cell Phone Not In Use

0' Direction: Not State Dark - Street Light Clear Pty at Fault:1
21453A Hit & Run: No Other Visible Injury # Inj: 1 # Killed: 0
Male Age: 39
Lap/Shoulder Harness Used Cell Phone Not In Use
Male Age: 25
Lap/Shoulder Harness Used Cell Phone Not In Use

22' Direction: North Daylight Clear Pty at Fault:1
22350 Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0
Female Age: 22
Lap/Shoulder Harness Used Cell Phone Not In Use
Female Age: 23
Lap/Shoulder Harness Used Cell Phone Not In Use

0' Direction: Not State Dark - Street Light Clear Pty at Fault:1
21453A Hit & Run: No Property Damage Only # Inj: 0 # Killed: 0
Female Age: 21
Lap/Shoulder Harness Used Cell Phone Not In Use
Female Age: 22
Lap/Shoulder Harness Used Cell Phone Not In Use

Settings for Query:

Street: LOS CARNEROS RD
Cross Street: CALLE KORAL
Intersection Related: True
Sorted By: Date and Time

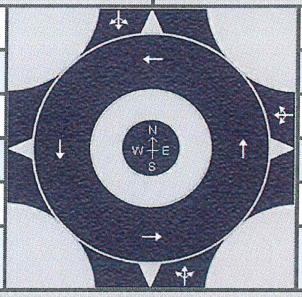
INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

Reference 1 - Los Carneros Road/Calle Real
Reference 2 - Los Carneros Road/US 101 NB Ramps
Reference 3 - Los Carneros Road/US 101 SB Ramps
Reference 4 - Los Carneros Road/Calle Koral
Reference 5 - Los Carneros Road/Hollister Avenue
Reference 6 - Hollister Avenue/ Los Carneros Way

HCS7 Roundabouts Report

General Information

Analyst	DLD
Agency or Co.	ATE
Date Performed	3/22/2021
Analysis Year	
Time Analyzed	AM PEAK HOUR
Project Description	EXISTING CONDITIONS



Site Information

Intersection	LOS CARNEROS/CALLE REAL
E/W Street Name	CALLE REAL
N/S Street Name	LOS CARNEROS
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	CITY OF GOLETA

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment							LTR				LTR				LTR	
Volume (V), veh/h					0	301	0	15	8	0	157	216	0	30	300	0
Percent Heavy Vehicles, %					3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h					0	337	0	17	9	0	176	242	0	34	336	0
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes					1				1				1			
Pedestrians Crossing, p/h					0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)					4.9763			4.9763			4.9763	
Follow-Up Headway (s)					2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h					354			427			370	
Entry Volume, veh/h					344			415			359	
Circulating Flow (v_c), pc/h	716			185			34			346		
Exiting Flow (v_{ex}), pc/h	276			0			193			682		
Capacity (c_{pce}), pc/h					1143			1333			970	
Capacity (c), veh/h					1109			1294			941	
v/c Ratio (x)					0.31			0.32			0.38	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					6.2			5.7			8.1	
Lane LOS					A			A			A	
95% Queue, veh					1.3			1.4			1.8	
Approach Delay, s/veh				6.2			5.7			8.1		
Approach LOS				A			A			A		
Intersection Delay, s/veh | LOS	6.6						A					

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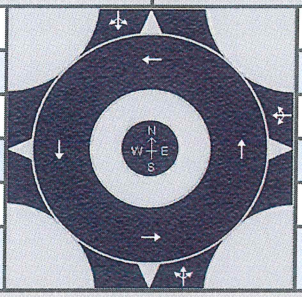
General Information

Analyst	DLD
Agency or Co.	ATE
Date Performed	3/22/2021
Analysis Year	
Time Analyzed	AM PEAK HOUR
Project Description	EXISTING + PROJECT



Site Information

Intersection	LOS CARNEROS/CALLE REAL
E/W Street Name	CALLE REAL
N/S Street Name	LOS CARNEROS
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	CITY OF GOLETA

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment							LTR				LTR				LTR	
Volume (V), veh/h					0	303	0	15	8	0	165	224	0	30	302	0
Percent Heavy Vehicles, %					3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h					0	339	0	17	9	0	185	251	0	34	338	0
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes					1				1				1			
Pedestrians Crossing, p/h					0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)					4.9763			4.9763			4.9763	
Follow-Up Headway (s)					2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h					356			445			372	
Entry Volume, veh/h					346			432			361	
Circulating Flow (v_c), pc/h	720			194			34			348		
Exiting Flow (v_{ex}), pc/h	285			0			202			686		
Capacity (c_{pce}), pc/h					1132			1333			968	
Capacity (c), veh/h					1099			1294			939	
v/c Ratio (x)					0.31			0.33			0.38	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					6.3			5.8			8.1	
Lane LOS					A			A			A	
95% Queue, veh					1.4			1.5			1.8	
Approach Delay, s/veh				6.3			5.8			8.1		
Approach LOS				A			A			A		
Intersection Delay, s/veh | LOS	6.7						A					

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Analyst	DLD
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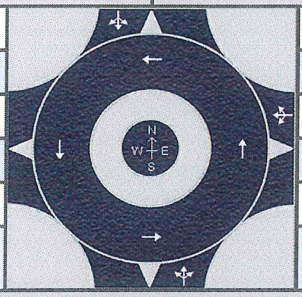
Date Performed	3/22/2021
Analysis Year	
Time Analyzed	AM PEAK HOUR
Project Description	CUMULATIVE



Site Information

Intersection	LOS CARNEROS/CALLE REAL
E/W Street Name	CALLE REAL
N/S Street Name	LOS CARNEROS
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	CITY OF GOLETA

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment							LTR				LTR				LTR	
Volume (V), veh/h					0	302	0	15	8	0	161	219	0	30	304	0
Percent Heavy Vehicles, %					3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h					0	338	0	17	9	0	180	245	0	34	340	0
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes					1				1				1			
Pedestrians Crossing, p/h					0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)					4.9763			4.9763			4.9763	
Follow-Up Headway (s)					2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h					355			434			374	
Entry Volume, veh/h					345			421			363	
Circulating Flow (v_c), pc/h	721			189			34			347		
Exiting Flow (v_{ex}), pc/h	279			0			197			687		
Capacity (c_{pce}), pc/h					1138			1333			969	
Capacity (c), veh/h					1105			1294			940	
v/c Ratio (x)					0.31			0.33			0.39	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					6.3			5.7			8.1	
Lane LOS					A			A			A	
95% Queue, veh					1.3			1.4			1.8	
Approach Delay, s/veh				6.3			5.7			8.1		
Approach LOS				A			A			A		
Intersection Delay, s/veh | LOS	6.7						A					

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Analyst	DLD
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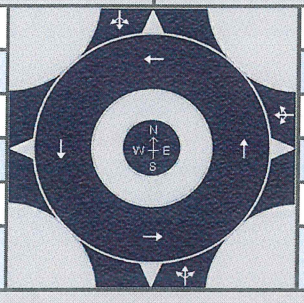
Time Analyzed	AM PEAK HOUR
Project Description	CUMULATIVE + PROJECT



Site Information

Intersection	LOS CARNEROS/CALLE REAL
E/W Street Name	CALLE REAL
N/S Street Name	LOS CARNEROS
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	CITY OF GOLETA

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment							LTR				LTR				LTR	
Volume (V), veh/h					0	304	0	15	8	0	169	227	0	30	306	0
Percent Heavy Vehicles, %					3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h					0	340	0	17	9	0	189	254	0	34	343	0
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes					1				1				1			
Pedestrians Crossing, p/h					0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)					4.9763			4.9763			4.9763	
Follow-Up Headway (s)					2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h					357			452			377	
Entry Volume, veh/h					347			439			366	
Circulating Flow (v_c), pc/h	726			198			34			349		
Exiting Flow (v_{ex}), pc/h	288			0			206			692		
Capacity (c_{pce}), pc/h					1128			1333			967	
Capacity (c), veh/h					1095			1294			939	
v/c Ratio (x)					0.32			0.34			0.39	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					6.4			5.9			8.2	
Lane LOS					A			A			A	
95% Queue, veh					1.4			1.5			1.9	
Approach Delay, s/veh				6.4			5.9			8.2		
Approach LOS				A			A			A		
Intersection Delay, s/veh | LOS	6.8						A					

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Analyst	DLD
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Date Performed	3/22/2021
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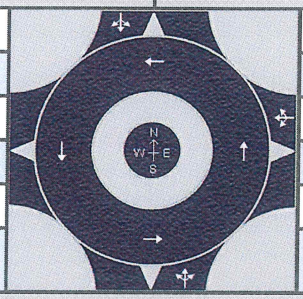
Project Description	EXISTING CONDITIONS



Site Information

Intersection	LOS CARNEROS/CALLE REAL
E/W Street Name	CALLE REAL
N/S Street Name	LOS CARNEROS
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	CITY OF GOLETA

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment							LTR				LTR				LTR	
Volume (V), veh/h					0	392	0	21	20	0	296	513	0	2	106	0
Percent Heavy Vehicles, %					3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h					0	439	0	24	22	0	331	574	0	2	119	0
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes					1				1				1			
Pedestrians Crossing, p/h					0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)					4.9763			4.9763			4.9763	
Follow-Up Headway (s)					2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h					463			927			121	
Entry Volume, veh/h					450			900			117	
Circulating Flow (v_c), pc/h	582			353			2			461		
Exiting Flow (v_{ex}), pc/h	576			0			355			580		
Capacity (c_{pce}), pc/h					963			1377			862	
Capacity (c), veh/h					935			1337			837	
v/c Ratio (x)					0.48			0.67			0.14	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					9.8			11.4			5.7	
Lane LOS					A			B			A	
95% Queue, veh					2.7			5.6			0.5	
Approach Delay, s/veh				9.8			11.4			5.7		
Approach LOS				A			B			A		
Intersection Delay, s/veh | LOS	10.4						B					

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Analyst	DLD
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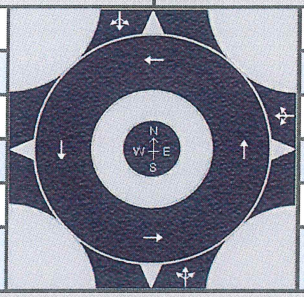
Date Performed	3/22/2021
Analysis Year	
Time Analyzed	PM PEAK HOUR
Project Description	EXISTING + PROJECT



Site Information

Intersection	LOS CARNEROS/CALLE REAL
E/W Street Name	CALLE REAL
N/S Street Name	LOS CARNEROS
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	CITY OF GOLETA

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment							LTR				LTR				LTR	
Volume (V), veh/h					0	399	0	21	20	0	299	516	0	2	113	0
Percent Heavy Vehicles, %					3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h					0	447	0	24	22	0	335	578	0	2	127	0
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes					1				1				1			
Pedestrians Crossing, p/h					0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)					4.9763			4.9763			4.9763	
Follow-Up Headway (s)					2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h					471			935			129	
Entry Volume, veh/h					457			908			125	
Circulating Flow (v_c), pc/h	598			357			2			469		
Exiting Flow (v_{ex}), pc/h	580			0			359			596		
Capacity (c_{pce}), pc/h					959			1377			855	
Capacity (c), veh/h					931			1337			830	
v/c Ratio (x)					0.49			0.68			0.15	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					10.0			11.6			5.9	
Lane LOS					A			B			A	
95% Queue, veh					2.8			5.7			0.5	
Approach Delay, s/veh				10.0			11.6			5.9		
Approach LOS				A			B			A		
Intersection Delay, s/veh | LOS	10.6						B					

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Analyst	DLD
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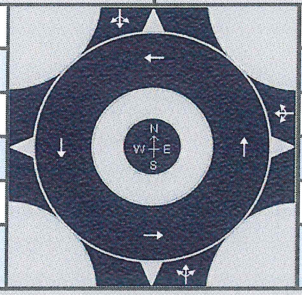
Date Performed	3/22/2021
Analysis Year	
Time Analyzed	PM PEAK HOUR
Project Description	CUMULATIVE



Site Information

Intersection	LOS CARNEROS/CALLE REAL
E/W Street Name	CALLE REAL
N/S Street Name	LOS CARNEROS
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	CITY OF GOLETA

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment							LTR				LTR				LTR	
Volume (V), veh/h					0	395	0	21	20	0	302	515	0	2	110	0
Percent Heavy Vehicles, %					3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h					0	442	0	24	22	0	338	577	0	2	123	0
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes					1				1				1			
Pedestrians Crossing, p/h					0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)					4.9763			4.9763			4.9763	
Follow-Up Headway (s)					2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h					466			937			125	
Entry Volume, veh/h					452			910			121	
Circulating Flow (v_c), pc/h	589			360			2			464		
Exiting Flow (v_{ex}), pc/h	579			0			362			587		
Capacity (c_{pce}), pc/h					956			1377			860	
Capacity (c), veh/h					928			1337			835	
v/c Ratio (x)					0.49			0.68			0.15	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					9.9			11.6			5.8	
Lane LOS					A			B			A	
95% Queue, veh					2.7			5.8			0.5	
Approach Delay, s/veh				9.9			11.6			5.8		
Approach LOS				A			B			A		
Intersection Delay, s/veh | LOS	10.6						B					

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Date Performed	3/22/2021
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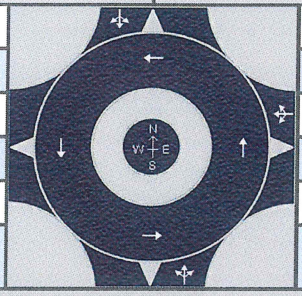
Time Analyzed	PM PEAK HOUR
Project Description	CUMULATIVE + PROJECT



Site Information

Intersection	LOS CARNEROS/CALLE REAL
E/W Street Name	CALLE REAL
N/S Street Name	LOS CARNEROS
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.92
Jurisdiction	CITY OF GOLETA

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment							LTR				LTR				LTR	
Volume (V), veh/h					0	402	0	21	20	0	305	518	0	2	117	0
Percent Heavy Vehicles, %					3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h					0	450	0	24	22	0	341	580	0	2	131	0
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes					1				1				1			
Pedestrians Crossing, p/h					0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)					4.9763			4.9763			4.9763	
Follow-Up Headway (s)					2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h					474			943			133	
Entry Volume, veh/h					460			916			129	
Circulating Flow (v_c), pc/h	605			363			2			472		
Exiting Flow (v_{ex}), pc/h	582			0			365			603		
Capacity (c_{pce}), pc/h					953			1377			853	
Capacity (c), veh/h					925			1337			828	
v/c Ratio (x)					0.50			0.68			0.16	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					10.2			11.7			5.9	
Lane LOS					B			B			A	
95% Queue, veh					2.8			5.9			0.6	
Approach Delay, s/veh				10.2			11.7			5.9		
Approach LOS				B			B			A		
Intersection Delay, s/veh | LOS	10.8						B					

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HERITAGE RIDGE PROJECT (20058.01) **REF:** 02 AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***AM PEAK HOUR***

N/S STREET: ***LOS CARNEROS RD***

E/W STREET: ***US 101 NB RAMPS***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	**48**	**313**	**0**	**0**	**463**	**133**	**0**	**0**	**0**	**1061**	**2**	**51**
(B) PROJECT-ADDED:	**8**	**16**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**15**	**0**	**0**
(C) CUMULATIVE:	**57**	**320**	**0**	**0**	**467**	**134**	**0**	**0**	**0**	**1102**	**0**	**51**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TT	T TR		L LTR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	48	56	57	65	0.030 *	0.035 *	0.036 *	0.041 *
NBT	2	3200	313	329	320	336	0.098	0.103	0.100	0.105
NBR	0	0	0	0	0	0	-	-	-	-
SBL	0	0	0	0	0	0	-	-	-	-
SBT	2	3200	463	467	467	471	0.186 *	0.188 *	0.188 *	0.189 *
SBR	0	0	133	133	134	134	-	-	-	-
EBL	0	0	0	0	0	0	-	-	-	-
EBT	0	0	0	0	0	0	-	-	-	-
EBR	0	0	0	0	0	0	-	-	-	-
WBL	0	0	1061	1076	1102	1117	-	-	-	-
WBT	2	3200	2	2	0	0	0.338 *	0.343 *	0.350 *	0.355 *
WBR (a)	0	0	18	18	18	18	-	-	-	-
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION		**0.654**	**0.666**	**0.674**	**0.685**
					SCENARIO LEVEL OF SERVICE:		**B**	**B**	**B**	**B**
					CHANGE IN V/C:			**0.012**		**0.011**

NOTES:

RTOR (a) 64%

Printed: 3/25/2021 13:42

HERITAGE RIDGE PROJECT (20058.01) **REF:** 02 PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***PM PEAK HOUR***

N/S STREET: ***LOS CARNEROS RD***

E/W STREET: ***US 101 NB RAMPS***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	**316**	**766**	**0**	**0**	**336**	**190**	**0**	**0**	**0**	**516**	**7**	**59**
(B) PROJECT-ADDED:	**3**	**6**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**54**	**0**	**0**
(C) CUMULATIVE:	**331**	**774**	**0**	**0**	**340**	**193**	**0**	**0**	**0**	**557**	**7**	**77**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TT	T TR		L LTR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	316	319	331	334	0.198 *	0.199 *	0.207 *	0.209 *
NBT	2	3200	766	772	774	780	0.239	0.241	0.242	0.244
NBR	0	0	0	0	0	0	-	-	-	-
SBL	0	0	0	0	0	0	-	-	-	-
SBT	2	3200	336	350	340	354	0.164 *	0.169 *	0.167 *	0.171 *
SBR	0	0	190	190	193	193	-	-	-	-
EBL	0	0	0	0	0	0	-	-	-	-
EBT	0	0	0	0	0	0	-	-	-	-
EBR	0	0	0	0	0	0	-	-	-	-
WBL	0	0	516	570	557	611	-	-	-	-
WBT	2	3200	7	7	7	7	0.171 *	0.188 *	0.186 *	0.203 *
WBR (a)	0	0	25	25	32	32	-	-	-	-
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.633**	**0.656**	**0.660**	**0.683**
					SCENARIO LEVEL OF SERVICE:		**B**	**B**	**B**	**B**
					CHANGE IN V/C:			**0.023**		**0.023**

NOTES:

RTOR (a) 58%

Printed: 3/25/2021 13:44

HERITAGE RIDGE PROJECT (20058.01) **REF:** 03 AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***AM PEAK HOUR***

N/S STREET: ***LOS CARNEROS ROAD***

E/W STREET: ***US 101 SB RAMPS***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES		NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A)	EXISTING:	**0**	**227**	**472**	**96**	**1439**	**0**	**144**	**4**	**201**	**0**	**0**	**0**
(B)	PROJECT-ADDED:	**0**	**24**	**63**	**0**	**19**	**0**	**0**	**0**	**2**	**0**	**0**	**0**
(C)	CUMULATIVE:	**0**	**240**	**513**	**96**	**1484**	**0**	**147**	**4**	**213**	**0**	**0**	**0**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	TT R	L TT	LT R	

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	2	3200	227	251	240	264	0.071	0.078	0.075	0.083
NBR *(a)*	1	1600	340	385	369	415	0.213	0.241	0.231	0.259
SBL	1	1600	96	96	96	96	0.060	0.060	0.060	0.060
SBT	2	3200	1439	1458	1484	1503	0.450 *	0.456 *	0.464 *	0.470 *
SBR	0	0	0	0	0	0	-	-	-	-
EBL	0	0	144	144	147	147	-	-	-	-
EBT	1	1600	4	4	4	4	0.093	0.093	0.094	0.094
EBR *(b)*	1	1600	157	158	166	168	0.098 *	0.099 *	0.104 *	0.105 *
WBL	0	0	0	0	0	0	-	-	-	-
WBT	0	0	0	0	0	0	-	-	-	-
WBR	0	0	0	0	0	0	-	-	-	-
			LOST TIME:				0.100 *	0.100 *	0.100 *	0.100 *
			TOTAL INTERSECTION CAPACITY UTILIZATION:				**0.648**	**0.655**	**0.668**	**0.675**
			SCENARIO LEVEL OF SERVICE:				**B**	**B**	**B**	**B**
			CHANGE IN V/C:					**0.007**		**0.007**

NOTES:

RTOR (a) 28%
(b) 22%

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HERITAGE RIDGE PROJECT (20058.01) **REF:** 03 PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***PM PEAK HOUR***

N/S STREET: ***LOS CARNEROS ROAD***

E/W STREET: ***US 101 SB RAMPS***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	**0**	**940**	**1101**	**58**	**756**	**0**	**134**	**1**	**50**	**0**	**0**	**0**
(B) PROJECT-ADDED:	**0**	**9**	**25**	**0**	**68**	**0**	**0**	**0**	**7**	**0**	**0**	**0**
(C) CUMULATIVE:	**0**	**961**	**1159**	**58**	**801**	**0**	**136**	**1**	**60**	**0**	**0**	**0**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	TT R	L TT	LT R	

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	2	3200	940	949	961	970	0.294	0.297	0.300	0.303
NBR *(a)*	1	1600	826	845	869	888	0.516 *	0.528 *	0.543 *	0.555 *
SBL	1	1600	58	58	58	58	0.036 *	0.036 *	0.036 *	0.036 *
SBT	2	3200	756	824	801	869	0.236	0.258	0.250	0.272
SBR	0	0	0	0	0	0	-	-	-	-
EBL	0	0	134	134	136	136	-	-	-	-
EBT	1	1600	1	1	1	1	0.084 *	0.084 *	0.086 *	0.086 *
EBR *(b)*	1	1600	25	29	30	34	0.016	0.018	0.019	0.021
WBL	0	0	0	0	0	0	-	-	-	-
WBT	0	0	0	0	0	0	-	-	-	-
WBR	0	0	0	0	0	0	-	-	-	-
			LOST TIME:				0.100 *	0.100 *	0.100 *	0.100 *
			TOTAL INTERSECTION CAPACITY UTILIZATION:				**0.736**	**0.748**	**0.765**	**0.777**
			SCENARIO LEVEL OF SERVICE:				**C**	**C**	**C**	**C**
			CHANGE IN V/C:					**0.012**		**0.012**

NOTES:

RTOR (a) 25%
(b) 50%

Printed: 3/25/2021 13:47

HERITAGE RIDGE PROJECT (20058.01) **REF:** 04 AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***AM PEAK HOUR***

N/S STREET: ***LOS CARNEROS ROAD***

E/W STREET: ***CALLE KORAL***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	**5**	**473**	**26**	**221**	**1365**	**40**	**111**	**12**	**35**	**40**	**12**	**110**
(B) PROJECT-ADDED:	**0**	**0**	**7**	**21**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**87**
(C) CUMULATIVE:	**5**	**527**	**26**	**221**	**1472**	**40**	**111**	**12**	**35**	**40**	**12**	**110**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TT TR	L TT R	L TR	L T R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	5	5	5	5	0.003 *	0.003 *	0.003 *	0.003 *
NBT	3	4800	473	473	527	527	0.104	0.105	0.115	0.117
NBR	0	0	26	33	26	33	-	-	-	-
SBL	1	1600	221	242	221	242	0.138	0.151	0.138	0.151
SBT	2	3200	1365	1365	1472	1472	0.427 *	0.427 *	0.460 *	0.460 *
SBR	1	1600	40	40	40	40	0.025	0.025	0.025	0.025
EBL	1	1600	111	111	111	111	0.069 *	0.069 *	0.069 *	0.069 *
EBT	1	1600	12	12	12	12	0.029	0.029	0.029	0.029
EBR	0	0	35	35	35	35	-	-	-	-
WBL	1	1600	40	68	40	68	0.025	0.043	0.025	0.043
WBT	1	1600	12	12	12	12	0.008 *	0.008 *	0.008 *	0.008 *
WBR *(a)*	1	1600	0	0	0	0	0.000	0.000	0.000	0.000
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.607**	**0.607**	**0.640**	**0.640**
					SCENARIO LEVEL OF SERVICE:		**B**	**B**	**B**	**B**
					CHANGE IN V/C:			**0.000**		**0.000**

NOTES:

(a) Assumes overlap with SB LT phase.

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HERITAGE RIDGE PROJECT (20058.01) **REF:** 04 PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***PM PEAK HOUR***

N/S STREET: ***LOS CARNEROS ROAD***

E/W STREET: ***CALLE KORAL***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	**30**	**1599**	**52**	**92**	**634**	**73**	**83**	**7**	**18**	**27**	**18**	**365**
(B) PROJECT-ADDED:	**0**	**0**	**23**	**75**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**34**
(C) CUMULATIVE:	**63**	**1678**	**52**	**92**	**689**	**73**	**83**	**7**	**18**	**27**	**18**	**365**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TT TR	L TT R	L TR	L T R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	30	30	63	63	0.019	0.019	0.039	0.039
NBT	3	4800	1599	1599	1678	1678	0.343 *	0.347 *	0.359 *	0.364 *
NBR *(a)*	0	0	47	68	47	68	-	-	-	-
SBL	1	1600	92	167	92	167	0.058 *	0.104 *	0.058 *	0.104 *
SBT	2	3200	634	634	689	689	0.198	0.198	0.215	0.215
SBR	1	1600	73	73	73	73	0.046	0.046	0.046	0.046
EBL	1	1600	83	83	83	83	0.052 *	0.052 *	0.052 *	0.052 *
EBT	1	1600	7	7	7	7	0.016	0.016	0.016	0.016
EBR	0	0	18	18	18	18	-	-	-	-
WBL	1	1600	27	38	27	38	0.017	0.024	0.017	0.024
WBT	1	1600	18	18	18	18	0.011	0.011	0.011	0.011
WBR *(b)*	1	1600	211	164	211	164	0.132 *	0.103 *	0.132 *	0.103 *
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.685**	**0.706**	**0.701**	**0.723**
					SCENARIO LEVEL OF SERVICE:		**B**	**C**	**B**	**C**
					CHANGE IN V/C:			**0.021**		**0.022**

NOTES:

RTOR (a) 9%

(b) 17% RTOR + overlap with SB LT phase.

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HERITAGE RIDGE PROJECT (20058.01) **REF:** 05 AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***AM PEAK HOUR***

N/S STREET: ***LOS CARNEROS ROAD***

E/W STREET: ***HOLLISTER AVENUE***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	**59**	**344**	**73**	**37**	**464**	**222**	**109**	**495**	**218**	**100**	**284**	**38**
(B) PROJECT-ADDED:	**0**	**3**	**3**	**0**	**12**	**16**	**4**	**4**	**0**	**11**	**15**	**0**
(C) CUMULATIVE:	**60**	**369**	**77**	**37**	**494**	**237**	**124**	**516**	**219**	**105**	**299**	**38**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND LL TT R	SOUTH BOUND L TT R	EAST BOUND LL T TR	WEST BOUND L T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	2	3200	59	59	60	60	0.018 *	0.018 *	0.019 *	0.019 *
NBT	2	3200	344	347	369	372	0.108	0.108	0.115	0.116
NBR *(a)*	1	1600	62	65	65	68	0.039	0.041	0.041	0.043
SBL	1	1600	37	37	37	37	0.023	0.023	0.023	0.023
SBT	2	3200	464	476	494	506	0.145 *	0.149 *	0.154 *	0.158 *
SBR *(b)*	1	1600	155	167	166	177	0.097	0.104	0.104	0.111
EBL	2	3200	109	113	124	128	0.034	0.035	0.039	0.040
EBT	2	3200	495	499	516	520	0.210 *	0.211 *	0.217 *	0.218 *
EBR *(c)*	0	0	177	177	177	177	-	-	-	-
WBL	1	1600	100	111	105	116	0.063 *	0.069 *	0.066 *	0.073 *
WBT	2	3200	284	299	299	314	0.099	0.104	0.104	0.109
WBR *(d)*	0	0	34	34	34	34	-	-	-	-
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.536**	**0.547**	**0.556**	**0.568**
					SCENARIO LEVEL OF SERVICE:		A	A	A	A
					CHANGE IN V/C:			**0.011**		**0.012**

NOTES:

RTOR (a) 15%
(b) 30%
(c) 19%
(d) 10%

Printed: 3/25/2021 14:27

HERITAGE RIDGE PROJECT (20058.01) **REF:** 05 PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***PM PEAK HOUR***

N/S STREET: ***LOS CARNEROS ROAD***

E/W STREET: ***HOLLISTER AVENUE***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	**225**	**649**	**140**	**50**	**511**	**183**	**358**	**403**	**122**	**156**	**621**	**37**
(B) PROJECT-ADDED:	**0**	**10**	**10**	**0**	**5**	**6**	**13**	**14**	**0**	**4**	**6**	**0**
(C) CUMULATIVE:	**227**	**684**	**145**	**50**	**539**	**198**	**378**	**421**	**123**	**161**	**643**	**37**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	LL TT R	L TT R	LL T TR	L T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	2	3200	225	225	227	227	0.070	0.070	0.071	0.071
NBT	2	3200	649	659	684	694	0.203 *	0.206 *	0.214 *	0.217 *
NBR *(a)*	1	1600	101	108	104	112	0.063	0.068	0.065	0.070
SBL	1	1600	50	50	50	50	0.031 *	0.031 *	0.031 *	0.031 *
SBT	2	3200	511	516	539	544	0.160	0.161	0.168	0.170
SBR *(b)*	1	1600	123	127	133	137	0.077	0.079	0.083	0.086
EBL	2	3200	358	371	378	391	0.112 *	0.116 *	0.118 *	0.122 *
EBT	2	3200	403	417	421	435	0.155	0.159	0.161	0.165
EBR *(c)*	0	0	93	93	93	93	-	-	-	-
WBL	1	1600	156	160	161	165	0.098	0.100	0.101	0.103
WBT	2	3200	621	627	643	649	0.205 *	0.207 *	0.212 *	0.213 *
WBR *(d)*	0	0	34	34	34	34	-	-	-	-
			LOST TIME:				0.100 *	0.100 *	0.100 *	0.100 *
			TOTAL INTERSECTION CAPACITY UTILIZATION:				**0.651**	**0.660**	**0.675**	**0.683**
			SCENARIO LEVEL OF SERVICE:				**B**	**B**	**B**	**B**
			CHANGE IN V/C:					**0.009**		**0.008**

NOTES:

RTOR (a) 28%
(b) 33%
(c) 24%
(d) 8%

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HERITAGE RIDGE PROJECT (20058.01) **REF:** 06 AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***AM PEAK HOUR***

N/S STREET: ***LOS CARNEROS WAY***

E/W STREET: ***HOLLISTER AVENUE***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	**0**	**0**	**0**	**115**	**0**	**49**	**21**	**579**	**0**	**0**	**368**	**38**
(B) PROJECT-ADDED:	**0**	**0**	**0**	**0**	**0**	**26**	**7**	**0**	**0**	**0**	**0**	**0**
(C) CUMULATIVE:	**0**	**0**	**0**	**115**	**0**	**49**	**21**	**604**	**0**	**0**	**388**	**38**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
		L LR R	L TT	T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	0	0	0	0	0	0	-	-	-	-
NBR	0	0	0	0	0	0	-	-	-	-
SBL (a)	2	3200	115	115	115	115	0.036 *	0.036 *	0.036 *	0.036 *
SBT	0	0	0	0	0	0	-	-	-	-
SBR (b)	1	1600	20	31	20	31	0.013	0.019	0.013	0.019
EBL	1	1600	21	28	21	28	0.013	0.018	0.013	0.018
EBT	2	3200	579	579	604	604	0.181 *	0.181 *	0.189 *	0.189 *
EBR	0	0	0	0	0	0	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-
WBT	2	3200	368	368	388	388	0.123	0.123	0.129	0.129
WBR (c)	0	0	26	26	26	26	-	-	-	-
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.317**	**0.317**	**0.325**	**0.325**
					SCENARIO LEVEL OF SERVICE:		A	A	A	A
					CHANGE IN V/C:			**0.000**		**0.000**

NOTES:

(a) LEFT-TURN CHECK
(b) 59% RTOR
(c) 32% RTOR

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HERITAGE RIDGE PROJECT (20058.01) **REF:** 06 PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: ***10/10/2019***

TIME PERIOD: ***PM PEAK HOUR***

N/S STREET: ***LOS CARNEROS WAY***

E/W STREET: ***HOLLISTER AVENUE***

CONTROL TYPE: ***SIGNAL***

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	**0**	**0**	**0**	**40**	**0**	**23**	**43**	**538**	**0**	**0**	**780**	**160**
(B) PROJECT-ADDED:	**0**	**0**	**0**	**0**	**0**	**10**	**24**	**0**	**0**	**0**	**0**	**0**
(C) CUMULATIVE:	**0**	**0**	**0**	**40**	**0**	**23**	**43**	**561**	**0**	**0**	**807**	**160**

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
		L LR R	L T T	T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

TURNING MOVEMENT	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	0	0	0	0	0	0	-	-	-	-
NBR	0	0	0	0	0	0	-	-	-	-
SBL (a)	2	3200	40	40	40	40	0.013 *	0.013 *	0.013 *	0.013 *
SBT	0	0	0	0	0	0	-	-	-	-
SBR (b)	1	1600	13	19	13	19	0.008	0.012	0.008	0.012
EBL	1	1600	43	67	43	67	0.027 *	0.042 *	0.027 *	0.042 *
EBT	2	3200	538	538	561	561	0.168	0.168	0.175	0.175
EBR	0	0	0	0	0	0	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-
WBT	2	3200	780	780	807	807	0.287 *	0.287 *	0.295 *	0.295 *
WBR (c)	0	0	138	138	138	138	-	-	-	-
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.427**	**0.442**	**0.435**	**0.450**
					SCENARIO LEVEL OF SERVICE:		**A**	**A**	**A**	**A**
					CHANGE IN V/C:			**0.015**		**0.015**

NOTES:

(a) LEFT-TURN CHECK
(b) 43% RTOR
(c) 14% RTOR

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City of Goleta

SB743 Sketch VMT Tool - Residential Projects

Note: The analysis computes the VMT per capita and compares against the City of Goleta thresholds

Data Entry

Project Name	Heritage Ridge
Address	Camino Vista
APN	073-060-031 through -043
SBCAG TAZ	20139
VMT District	4

Residential Project

New Units	Daily Trips
353	1,970

Analysis and Results

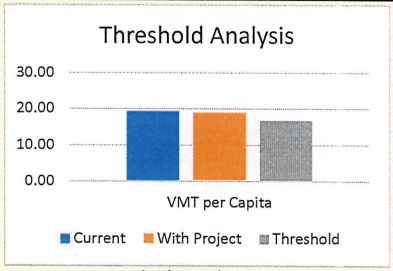
Screening Status: *VMT Analysis Required*

Growth Assuptions

VMT District 4	Housing Units	Population
Current	232	536
Added	353	809
New Total	585	1,345

Residential VMT per Capita Analysis

VMT District 4	VMT per Capita	Adopted Threshold
Current	19.29	16.79
With Project	18.81	16.79



Final Result:

Project Exceeds Threshold

Project Location

Associated Transportation Engineers

HERITAGE RIDGE PROJECT - TRIP GENERATION

Scenario	Size	ADT		AM PEAK HOUR		PM PEAK HOUR	
		Rate	Trips	Rate	Trips	Rate	Trips
Workforce Apartments	228 DU	7.32	1,669	0.65	148	0.66	150
Affordable Apartments(a)	63 DU	5.20	328	0.46	29	0.47	30
Affordable Senior Apartments(a)	41 DU	2.63	108	0.14	6	0.18	7
Totals	**332 DU**		**2,105**		**183**		**187**

(a) ADT rates for Affordable Apartments and Affordable Senior Apartments assume that units generate 71% of traffic generated by regular units.

LAND USE AND TRIP GENERATION COMPARISION TO DEIR

Scenario	Size	ADT		AM PEAK HOUR		PM PEAK HOUR	
		Rate	Trips	Rate	Trips	Rate	Trips
EIR	360 DU		1,970		174		183
CURRENT PROJECT	332 DU		2,105		183		187
CHANGE	**-28 DU**		**135**		**9**		**4**

HERITAGE RIDGE PROJECT - VMT CALCULATIONS

Scenario	Size	DAILY VMT(a)		ANNUAL VMT(b)	
		Rate	VMT	Days	VMT
Workforce Apartments(c)	228 DU	44.56	10,160	365	3,708,400
Affordable Apartments(d)	63 DU	31.63	1,993	365	727,445
Affordable Senior Apartments(e)	41 DU	15.99	656	365	239,440
Totals	**332 DU**		**12,809**		**4,675,285**

(a) DAILY VMT based on City of Goleta VMT calculator.

(b) ANNUAL VMT assumed DAILY VMT x 365 days per year.

(c) VMT assumes 19.29 VMT pe capita and 2.31 people per unit based on City VMT calculations

(d) VMT assumes affordable apartments generate 71% of the traffic generated by Workforce apartments

(e) VMT assumes affordable senrior units generate 35.9% of the traffic generated by Workforce apartments

Appendix J

Judgement Upon Arbitration Award and Annual Demand Water Report

TGI THE TOWBES GROUP, INC.

ASSET MANAGEMENT
CONSTRUCTION

March 21, 2014

Ms. Mary Chang
Senior Planner
Planning and Environmental Review
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

RE: North Willow Springs Conceptual Review

Dear Ms. Chang:

At our meeting on March 20 we had a brief discussion about water service for North Willow Springs. I have enclosed a copy of the recorded Judgment which was entered in the Superior Court to provide water service for all of the Willow Springs property, which I purchased from the prior owners. You will see in Section 5 that we are entitled to 100.89 AFY, and we expect to be somewhat under that amount with the total development of the property, including Willow Springs I, Willow Springs II and North Willow Springs.

We paid the cost of construction described in Section 4 to the Goleta Water District in connection with obtaining water service for Phase One of Willow Springs.

Please let me know if you have any additional questions.

Sincerely yours,

MICHAEL TOWBES

/bjr

Enclosure

cc: Lisa Prasse, Planning Manager
Joe Pearson, Assistant Planner
Stephanie Diaz, Contract Planner

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Coleman & Richards
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
21355 PACIFIC COAST HIGHWAY, SUITE 203A
MALIBU, CALIFORNIA 90265
MALIBU TELEPHONE (310) 317-0228 / FACSIMILE (310) 317-4658
EMAIL: CR4ADR@AOL.COM

RICHARD M. COLEMAN
LAURIE J. RICHARDS

CENTURY CITY OFFICE
(310) 277-2700

APR 04 2002

April 2, 2002

Mr. Michael Towbes, President and CEO
The Towbes Group
P. O. Box 20130
Santa Barbara CA 93120-0130

Re: Los Carneros and Goleta Water District Arbitration

Dear Mr. Towbes:

Enclosed is a copy of the Judgment entered on February 25, 2002.

Very truly yours,

Laurie J. Richards

enclosure

cc: Stanley Properties, Inc. (w/encl)

RICHARD M. COLEMAN (SBN 39564)
LAURIE J. RICHARDS (SBN 67274)
COLEMAN & RICHARDS
A Professional Corporation
21355 Pacific Coast Highway, Suite 203A
Malbu, California 90265
(310) 317-0228

REICKER, PFAU, PYLE, McROY & HERMAN, LLP.
1421 State Street, Suite B
Santa Barbara.CA 93101
(805) 966-2440

Attorneys for Claimants

FILED
SANTA BARBARA
SUPERIOR COURT
FEB 26 2002
GARY M. BLAIR, EXEC. OFFICER
By _____
ROSA REYES, Deputy Clerk

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SANTA BARBARA

LOS CARNEROS COMMUNITY ASSOCIATES, INC. and LOS CARNEROS COMMUNITY ASSOCIATES, a partnership, Petitioners AND GOLETA WATER DISTRICT, Respondent	Case No. 232281 ~~(PROPOSED)~~ JUDGMENT UPON ARBITRATION AWARD

The Court, having read and considered the Stipulation of Petitioners LOS CARNEROS COMMUNITY ASSOCIATES, INC. and LOS CARNEROS COMMUNITY ASSOCIATES, a partnership, now known as Stanley Properties, Ltd, a California corporation ("Petitioners" herein), and Respondent GOLETA WATER DISTRICT ("Respondent" herein), and good cause appearing therefor:

IT IS HEREBY ORDERED, ADJUDGED AND DECREED that judgment shall be

///

entered as follows:

A. Judgment is awarded in favor of Petitioners and against Respondent on Petitioners' claim for declaratory relief and Respondent's claim for rescission of the Water Service and Management Agreement dated October 6, 1986,("the 1986 Agreement") , as amended ("the 1997 Amendment") on November 17, 1997 (collectively "the WMSA") between Petitioners' predecessor(s) in interest and Respondent with respect to the unimproved real property in the County of Santa Barbara described on County Assessor's Parcel No. 35-050-24, and more particularly described on Exhibit "A" hereto and incorporated herein by this reference as though fully set forth at length [herein referred to as "the Property."] and the Court declares:

1. That the WMSA shall continue in full force and effect as set forth in this Judgment for the benefit of Petitioners or their successors in interest or any successor in interest hereafter (jointly and severally referred to in this Paragraph A as "Petitioners or their successors");

2. That no water supply facilities (herein "Water Supply Facilities") have been or will be constructed on the Property by Petitioners or their successors, and Respondent has elected that it will issue meters for the Property when needed and that it will neither operate nor construct Water Supply Facilities for the Property, all as set forth in the 1997 Amendment, Sections 1.1 through 1.4.3;

3. That, pursuant to paragraph 6 of the 1986 Agreement as amended by paragraph 1 of the 1997 Amendment, at the time or times (if the Property is developed in phases), Respondent is notified by Petitioners or their successors that water meters are required to serve the Property, Respondent shall issue said water meters once Petitioners or their successors have paid the estimated cost of construction of the Water Supply Facilities as set forth below. Petitioners or their successors shall make such other payments as provided in the 1997 Amendment Section 1.4.3 and as set forth in Paragraph

5 below.

4. That the Court finds that said cost of construction of the Water Supply Facilities to be $674,758.00, which amount shall be adjusted by the percentage increase in the 20 Cities Construction Index (CCI) of the Engineering News Record (or comparable index if CCI has ceased publication) for the period commencing March 1, 2001 and ending on the most recent date the index is published prior to the date that Petitioners or their successors notify Respondent that the meters are required (herein "the Payment");

5. That, to the extent the projected water usage at the time or times meters requested by Petitioners or their successors cumulatively exceeds 100.89 AFY, Petitioners or their successors shall pay Respondent's then prevailing fees with respect to the meters for such excess amount.

6. That the Payment shall be made to Respondent at the time the meters are first required pursuant to Respondent's standard procedures.

B. IT IS FURTHER ORDERED, ADJUDGED AND DECREED that Judgment is awarded in favor of Respondent and against Petitioners on Petitioners' claim for damages for breach of contract.

C. IT IS FURTHER ORDERED, ADJUDGED AND DECREED that Petitioners are awarded the sum of $280,000.00 as and for attorneys' fees and $70,862.37 in costs, for a total monetary award of $350,862.37.

DATED: 1-25, 2002

J. WILLIAM McLAFFERTY

Judge of the Superior Court

DESCRIPTION:

All that certain land situated in the State of California in the unincorporated area of the County of Santa Barbara, described as follows:

PARCEL ONE:

That portion of Tract 13,646 being Lot 19 and the Southeasterly portion of Camino Vista, a public road, from the centerline of said public road and lying contiguous thereto; Lot 21; Lot 22; Lot 23 and the Easterly portion of Via Las Flores, a public road, from the centerline of said public road, and the Northerly portion of Hollister Avenue, a public road, from the Santa Barbara City Limits terminating at the centerline of Via Las Flores, and lying contiguous thereto; Lot 24 and the Northerly portion of Via Las Flores from the centerline of said public road terminating at the centerline of Camino Vista, and the Southeasterly portion of Camino Vista, a public road, from the centerline of said public road and lying contiguous thereto, as shown on the map of Tract No. 13,646 in the County of Santa Barbara, State of California, recorded in Book 150 at Pages 92 through 98 of Maps, in the office of the County Recorder of said County, described as follows:

Beginning at the Southeasterly corner of Tract 13,646, being also the Southeasterly corner of Lot 23, as recorded in Book 150, Page 92, et seq., of Maps, in the office of the County Recorder of said County, being the true point of beginning of the parcel described by the following fourteen (14) courses and distances:

Thence 1st, along the Northerly line of Hollister Avenue being also the Southerly line of Lot 23 as recorded in Book 150, Page 92, et seq. of Maps in the office of the County Recorder of County, South 84°35'52" West, 59.78 feet;
Thence 2nd, continuing along the Northerly line of Hollister Avenue, being also the Southerly line of Lot 23, as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, South 85°43'22" West, 390.47 feet;
Thence 3rd, along the centerline of Via Las Flores, currently named Calle Koral, being also the Westerly line of Lot 23, as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, North 04°16'38" West, 261.45 feet to the beginning of a tangent curve concave to the Southwest having a radius of 475.00 feet;

Continued...

EXHIBIT "A"

Thence 4th, continuing along the centerline of Via Las Flores, currently named Calle Koral, being also the Westerly line of Lot 23 and the Southwesterly line of Lot 24 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, along the arc of said curve through a central angle of 49°23'10", an arc length of 409.43 feet;
Thence 5th, continuing along the centerline of Via Las Flores, currently named Calle Koral, being also the Southwesterly line of Lot 24 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, North 53°39'48" West, 422.79 feet;
Thence 6th, along the centerline of Camino Vista being also the Northwesterly line of Lot 24 as recorded in Book 150, Page 92, et seq. and along the Northwesterly line of Lot 19 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, North 36°20'12" East, 567.49 feet;
Thence 7th, leaving the centerline of Camino Vista, along the Northeasterly line of Lot 19 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, South 53°39'48" East 239.00 feet;
Thence 8th, along the Easterly line of Lot 19 and Lot 21 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, South 11°32'49" East 206.00 feet;
Thence 9th, along the Northeasterly line of Lot 21 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, South 50°35'12" East, 149.73 feet;
Thence 10th, along the Northwesterly line of Lot 22 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, North 62°40'47" East, 164.57 feet;
Thence 11th, along the Easterly line of Lot 22 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, North 00°16'03" West, 128.00 feet;
Thence 12th, along the Northerly line of Lot 22 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, North 89°43'57" East 165.00 feet;
Thence 13th, along the Easterly line of Lot 22 as recorded in Book 150, Page 92, et seq. of Maps, in the office of the County Recorder of said County, South 00°16'03" East, 632.64 feet;
Thence 14th, along the Easterly line of Lot 23 as recorded in Book 150 Page 92, et seq. of Maps, in the office of the County Recorder of said County, South 00°16'03" East 414.00 feet to the true point of beginning of the parcel described herein.

Said legal description was disclosed by Certificate and Declaration of Voluntary Merger recorded December 3, 1998 as Instrument No. 98-094181 of Official Records.

EXCEPTING therefrom 1/2 of any and all oil, gas and other hydrocarbon substances within and under the above described property 500 feet beneath the surface thereof, without right to drill for or mine for said oil, gas and other hydrocarbon substances from the surface of said land as reserved by Edith William Lefevre, a widow by deed recorded November 27, 1964 as Instrument No. 50017 in Book 2080, Page 976 of Official Records, Santa Barbara County, California.

Continued...

PARCEL TWO:

Lots 1 through 18 and Lots 20, 25, 26, 27 and 28 of Tract No. 13,646 in the County of Santa Barbara, State of California, as per map recorded in Book 150 at Pages 92 to 98 of Maps, filed in the County Recorder's office of said County.

EXCEPTING therefrom ½ of any and all oil, gas and other hydrocarbon substances within and under the above described property 500 feet beneath the surface thereof, without right to drill for or mine for said oil, gas and other hydrocarbon substances from the surface of said land as reserved by Edith William Lefevre, a widow by deed recorded November 27, 1964, as Instrument No. 50017 in Book 2080, Page 976 of Official Records, Santa Barbara County, California.

PARCEL THREE:

That portion of Calle Koral (formerly known as Via Las Flores) as described by the Summary Vacation as Resolution No. 99-36 by the Board of Supervisors of the County of Santa Barbara, State of California, recorded March 30, 1999 as Instrument No. 99-025401 of Official Records in the County Recorder's office of said County.

EXCEPTING therefrom any portion thereof lying within Parcel One hereinabove described.

ALSO EXCEPTING therefrom ½ of any and all oil, gas and other hydrocarbon substances within and under the above described property 500 feet beneath the surface thereof, without right to drill for or mine for said oil, gas and other hydrocarbon substances from the surface of said land as reserved by Edith William Lefevre, a widow by deed recorded November 27, 1964, as Instrument No. 50017 in Book 2080, Page 976 of Official Records, Santa Barbara County, California.

MAC DESIGN ASSOCIATES
CIVIL ENGINEERING ❖ LAND PLANNING ❖ BRIDGE DESIGN

July 7, 2015 (Revised December 7th, 2015)

Mr. John McInnes
General Manager
Goleta Water District
4699 Hollister Avenue
Goleta, CA 93110-1999

RE: Water Services for Willow Springs I, Willow Springs II and Heritage Ridge (formerly North Willow Springs)

Dear John,

Our Heritage Ridge project application (formerly North Willow Springs) was deemed complete by the City of Goleta on October 1st, 2014 and is currently in the environmental review process. As you recall, our Judgment Upon Arbitration Award dated February 26, 2002, provides a maximum water usage of 100.89 AFY for the Willow Springs I, Willow Springs II, and Heritage Ridge properties. As you will see, the combined measured and projected use is 100.795 AFY.

In our previous correspondence we had provided projections of water use at each of these properties. To substantiate these projections, our team utilized the water usage history established since the construction of Willow Springs I and Willow Springs II to extrapolate water usage for the three projects.

The calculations for water usage for Willow Springs I, Willow Springs II and Heritage Ridge were derived from WS I and WSII actual water use data provided by Goleta Water District. GWD staff provided the WS I and WSII water usage for the years between 2007 and 2015. To capture the most current project domestic water usage patterns, our analysis used a 24 month period (January 2012 through December 2013) as the base period. Please note that this was before the current drought conditions reduced our water consumption. The water meters are categorized as either domestic, landscape or commercial meters. The domestic meters were further separated by unit types: 1BR/1BA, 2BR/1BA, 2BR/2BA, and 3BR/2BA. We believe that is important, because domestic water use varies substantially based on the type of unit, as illustrated in Chart 1.

The goal was to determine the average water consumption rate by unit type, so for example, all 1BR/1BA water usage was totaled for each month of the base period and then converted to a monthly average based on the data for the 24 month period. This was then converted to Acre Feet per Year (AFY)/month for all 32 1BR/1BA units at WS I. The total of 2.545031 AFY was divided by those 32 units, which results in an average

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usage of 0.079532 AFY per 1BR/1BA unit. This method was then replicated for all the unit types.

Chart 1

Willow Springs I – Domestic Water Use				
BR	**BA**	**# Units**	**Total Domestic Use (AFY)**	**Domestic Water Use Rate (AFY)/Unit**
1	1	32	2.545	0.079
2	1	67	7.636	0.114
2	2	80	8.820	0.110
3	2	56	9.116	0.163
TOTAL		**235**	**28.117**	

The common area/landscape water usage for WS I was calculated in a similar fashion. The average monthly usage from the same base period (January 2012-December 2013) was used to reach the 11.949 AFY of water usage for the 6.24 acres of landscape area exclusive of Lot 20 at WS I. (The separate meter for Lot 20 was excluded in the WS I figure because of its very low water use of 0.31AFY for the 2.37 acres.) The total water usage was then converted to the landscape water use rate of 1.923 AFY per acre.

Chart 2

Willow Springs I – Landscape Water Use (Excludes Lot 20)		
Total Landscape Use (AFY)	**Total Landscape Area (Acre)**	**Landscape Water Use Rate (AFY/Acre)**
11.949	6.24	1.923

The commercial water usage for WSI was calculated by using the actual annual usage from the same base period (January 2012-December 2013), and the result was 1.182 AFY.

Chart 3

Total Commercial Use (AFY)
1.182

There is insufficient water use history to utilize actual figures for WS II, but the unit types are the same as WS I, so the rates which were established for each type of unit for WS I were applied to WS II.

Chart 4

Willow Springs II – Domestic Water Use				
BR	BA	# Units	Total Domestic Use (AFY)	Domestic Water Use Rate (AFY)/Unit
1	1	48	3.818	0.079
2	1	12	1.368	0.114
2	2	16	1.764	0.110
3	2	24	3.907	0.163
TOTAL		100	10.856	

The common area/landscape water usage for WS II was calculated based on the WS I figures. (Our reason for this is that the landscaping in WS II was being established in the second half of 2014, so the water use per acre would be greater during that period). The landscape water use rate for WS II of 1.923 AFY per acre results in 3.250 AFY of water usage for the 1.691 acres of landscape area at WS II.

Chart 5

Willow Springs II – Landscape Water Use		
Total Landscape Use (AFY)	Total Landscape Area (Acre)	Landscape Water Use Rate (AFY/Acre)
3.250	1.691	1.923*

The commercial water usage for WSII was calculated by using the actual annual usage from the base period (July 2014-June 2015), and the result was 0.321 AFY.

Chart 6

Total Commercial Use (AFY)
0.321

As with WS II, we utilized the WS I actual water usage to project water usage at Heritage Ridge. The Heritage Ridge units are smaller than the Willow Springs apartments, so we believe the water usage would be lower.

Chart 7

Average Unit Sizes				
BR	BA	WS I & II	HR – Workforce	HR – Seniors
1	1	744 SF	684 SF	652 SF
2	1	894 SF	817 SF	835 SF
2	2	1,025 SF	847 SF	847 SF
3	2	1,197 SF	988 SF	None

The data presented in Chart 7 above demonstrates use of WS I water usage data is a very conservative approach.

There are two separate housing types at Heritage Ridge: senior and workforce. Water usage for each housing type is calculated separately, but the same rates that were established for each type of unit for WS I were applied to the workforce units at HR.

Chart 8

Heritage Ridge – Workforce Domestic Water Use				
BR	BA	# Units	Total Domestic Use (AFY)	Domestic Water Use Rate (AFY)/Unit
1	1	149	11.850	0.079
2	1	33	3.761	0.114
2	2	22	2.425	0.110
3	2	24	3.907	0.163
TOTAL		**228**	**21.943**	

Senior housing by nature has a lower average occupancy than workforce housing, so there is a reduction in domestic water use. The occupant/unit ratio for WS I and WS II was populated based on actual occupancy figures from March 8, 2015 rent rolls. The average occupancy for each type of unit was as follows: 1.40 for 1BR/1BA's, 1.53 for 2BR/1BA's, 1.72 for 2BR/2BA's, and 2.36 for 3BR/2BA's.

For the purposes of this study, the WS I and WS II average occupancy was then compared to the average senior occupancy of 1.11. The figure was derived from a

study performed on August 6, 2014 analyzing occupant/unit ratios within the three senior properties in The Towbes Group portfolio. A table summarizing this study has been attached.

The ratio of 1.11 average senior occupancy was compared to each type of unit for workforce. Therefore the percentage reduction of senior average occupancy comparable to workforce is as follows: 21% for 1BR/1BA's, 27% for 2BR/1BA's, and 35% for 2BR/2BA's. The Senior Domestic Water Use Chart 6 below reflects these reductions in use.

Chart 9

Heritage Ridge – Seniors Domestic Water Use				
BR	**BA**	**# Units**	**Total Domestic Use (AFY)**	**Domestic Water Use Rate (AFY)/Unit**
1	1	108	6.786	0.063
2	1	18	1.497	0.083
2	2	6	0.430	0.072
TOTAL		**132**	**8.713**	

Chart 10

Combined Heritage Ridge Domestic Water Use		
	Units	**Total Domestic Use (AFY**
Workforce	**268**	**21.943**
Seniors	**132**	**8.713**
Total	**360**	**30.657**

The total landscape area for HR, including the 2-acre park, is approximately 7.264 acres. Landscape water was calculated by the landscape architect in a preliminary water calculation study dated September 28, 2015.

Chart 11

	Total Landscape Use (AFY)
Site Landscape & Public Park	12.540

The commercial water usage for HR was calculated by using the total actual commercial usage from WSI and WSII of 1.504 AFY, and multiplying by a factor of 360 units/335 units, or 1.0746. This gives a commercial use for HR of 1.616 AFY

Chart 12

Total Commercial Use (AFY)
1.616

The maximum water consumption available under the water services agreement for all three properties is 100.89 AFY. Based on the calculations above, the combined actual water use for WS I and projected water use for WS II and HR is 100.795 AFY. **Therefore, the measured and projected use is within the allotment by 0.095 AFY.**

Chart 13

	Total Domestic Use (AFY)	Total Landscape Use (AFY)	Total Commercial Use (AFY)	Total Water Use (AFY)
Willow Springs I	28.117	11.949	1.182	41.248
Willow Springs II	10.856	3.250	0.321	14.427
Lot 20	N/A	0.308	N/A	0.308
Heritage Ridge	30.657	12.540*	1.616*	44.812
TOTAL	69.630	28.047*	3.119*	**100.795***

**Includes site landscape and 2 acre Public Park*

235 units (WS I) + 100 units (WS II) + 360 units (HR) = 695 TOTAL units
100.795 AFY / 695 units = 0.145 AFY/Unit. As further confirmation of the validity of this estimate, the overall figure of 0.145 AFY/Unit is consistent with the Multi-Family Residential Water Demand Factor Update Report (Oct. 2009) Appendix A – Range between MFR 1-4 and MFR 5+ prepared by the City of Santa Barbara, copy enclosed. This October 2009 study was done before all of the current water conservation measures, and thus included much higher usage rates than today's current usage rates.

I am confident that our approach is sound and the most suitable method for determining water usage for the three projects. The analysis clearly demonstrates current and future developments will remain within the arbitration allotment. I would like to meet with you to discuss these matters and to get your concurrence prior to submitting a formal application for water service. If we are in agreement that the study provided is accurate, this will streamline the environmental review process for our Heritage Ridge project and supply the framework for our forthcoming water service application.

I look forward to hearing from you.

Sincerely yours,

Dale W. Weber, P.E.
MAC Design Associates

Enclosures
- Total Water Use Calculation Sheet
- Water Use Analysis Report

cc: Michael Towbes, The Towbes Group
Craig Minus, The Towbes Group
Linda Blackbern, The Towbes Group

Appendix L

Goleta Water District Preliminary Conditions Letter

GOLETA WATER DISTRICT

4699 HOLLISTER AVENUE
GOLETA, CALIFORNIA 93110-1999
TELEPHONE 805/964-6761
FAX 805/964-7002

PRELIMINARY CONDITIONS LETTER

December 16, 2015

Heritage Ridge, L.P.
Michael Towbes Construction & Development
c/o The Towbes Group, Inc.
Attn: Michael Towbes, General Partner
21 E. Victoria St. #200
Santa Barbara, CA 93101

Re: Heritage Ridge Development (Willow Springs III)
APN: 073-060-031 through -043
Service Address: TBD

Dear Mr. Towbes:

The Goleta Water District (District) has reviewed the application for water service submitted for the above referenced project (Proposed Project) located at APNs 073-060-031 through -043 (Property). Based on our review, we are pleased to inform you that we have determined water service may be installed for the Proposed Project, subject to the requirements of the SAFE Water Supplies Ordinance, District Code, water availability, an existing entitlement to water as set forth in the Judgment Upon Arbitration Award filed in Santa Barbara Superior Court Case Number 232281 on February 26, 2002, and the conditions set forth below.

The Proposed Project must meet all of the conditions stated below prior to initiation of service. All checks are payable to Goleta Water District. Signed acceptance of this Preliminary Conditions Letter (PCL) must be received within thirty (30) days of the date of this letter to remain valid. If the acceptance is received within 30 days, this PCL is valid for one (1) year from the date set forth above, unless a written extension is requested and provided by the District General Manager or the General Manager determines a longer period is justified.

This PCL is not a contract. It is statement of current conditions issued in compliance with the current District rules and regulations related to the approval of an application for water service. The Proposed Project will be subject to any applicable future changes and modifications in District rules and regulations.

Water service for the Proposed Project is subject to the District Water Allocation procedures, inclusive of compliance with the SAFE Ordinance. No action is required on your part. See Attachment A for additional details.

The remainder of this letter outlines the process for receiving a Conditional Can and Will Serve Letter, Final Can and Will Serve Letter, and initiation of water service.

To obtain a Conditional Can & Will Serve Letter:

1. Sign and return page 5 of this PCL, the 'Applicant Acceptance of the Preliminary Conditions Letter'.

2. Provide a Plan Check deposit in the amount of $1,200.00 along with design plans and hydraulic calculations for any required Water System Improvements, hydrant installations, main abandonment and extensions, appurtenances and dedication of any necessary easements in accordance with the District Standards & Specifications. Final plans are required prior to issuance of a Conditional Can and Will Serve Letter. See Attachment C for details.

   The Project involves abandonment and relocation of a District 20-inch water main line located in the Los Carneros Road easement. If any District easements for the line being abandoned are determined to exist, quitclaims for them must be provided to the District for consideration by the Board of Directors.

3. Upon completion of plan review, provide an Engineer's itemized cost estimate for the public Water System Improvements which are to be constructed by the Applicant's contractor and dedicated to the District. This information will be used by the District to determine the Surety and Inspection deposit amounts, which will be required prior to issuance of a Final Can & Will Serve Letter. See Attachments B and C for details.

To obtain a Final Can & Will Serve Letter, meet conditions 1 through 3 stated above, and:

4. Provide a copy of the Land Use approval for the Proposed Project including Conditions of Approval from City of Goleta Planning and Environmental Services Department.

5. Provide a copy of the final building permit from the City of Goleta Building Department.

6. Provide new addressing documentation from the County of Santa Barbara Fire Department.

7. Pay all fees and charges incurred as part of application approval including any balances due from Plan Check review.

8. Provide a Water System Improvements deposit for District construction of the main extensions, fire hydrants, meter installations, and service lines. See Attachments B and C for details.

9. Provide any Surety and Inspection deposit amounts determined during the Plan Check Review or Conditional Can and Will Serve Letter for the Applicant's construction of the main extensions. See Attachments B and C for details.

10. A Private Fire Line Service Agreement between the Property owner and Fire Line Service provider must be approved by the District, executed, and recorded against the parcels being created. The agreement must clearly identify the party who will be required through the agreement to be responsible for the

maintenance of and on-going payment for the fire line (i.e., HOA or Property Owner's Association). A copy of the recorded document must be presented to the District prior to completing Plan Check.

To have water service activated, meet conditions 1 through 10 stated above, and:

11. Construct Water System Improvements and install approved backflow assemblies. The location of all backflow assemblies must be approved by the District Cross Connection Specialist prior to installation. Backflow assemblies must be installed, inspected, and tested prior to any onsite work including demolition, grading, and construction. See Attachments C for details.

12. Obtain District field acceptance of the completed Water System Improvement, District approval of record drawings, and District dedication acceptance of water facilities to be activated as part of the District public water system.

If the Proposed Project, related data, or other information changes during the course of the City of Goleta review or otherwise, these conditions, including the New Water Supply Charge, the number of meters, connections, service line sizes, fees, and agreements indicated may be revised. In addition, changes to the applicable rules and regulations of the District may affect the Proposed Project.

Please note that all fees, rates, and charges are subject to amendment by the District Board of Directors. Pursuant to Government Code Section 66020(d)(1) the 90 day period to protest the amount of any New Water Supply Charge fees assessed against the Proposed Project in this PCL has begun. If you wish to protest the amount of the New Water Supply Charges, such protest must be filed within 90 days of the issuance of this PCL as an appeal to the Board of Directors under Goleta Water District Section 8.30.010.

By signing below as the Applicant, you acknowledge that you understand and agree to comply with all federal, state, and local laws and regulations applicable to the Proposed Project.

This letter constitutes the final determination of the General Manager. You have the right to appeal the determination of the General Manager, pursuant to Chapter 8.30 of the District Code.

Please provide a copy of this letter to the engineer, contractor, and other consultants working on the Proposed Project, and contact the District when you are prepared to begin the design of the Water System Improvements for the Proposed Project. If you have any questions regarding this matter or would like to schedule a pre-design meeting, please contact Jim Heaton at (805) 879-4652.

Sincerely,

John McInnes
General Manager

Approved as to Legal Form,

Mary L. McMaster
General Counsel

kb/rd/jh

Attachments: Applicant Acceptance
A – New Water Supply Charge
B – Water System Deposits and Charges
C – Water System Improvements

Enclosures

Applicant Acceptance of the Preliminary Conditions Letter

The Applicant, **Heritage Ridge, L.P.**, hereby confirms that Applicant has received a copy of and has read and understands this Preliminary Conditions Letter in its entirety, accepts the specified conditions and will abide by and carry out these conditions in good faith. The Applicants agree to provide all related project documents to any succeeding property owner.

The person signing below on behalf of the Applicant represents and warrants that they have authority to bind the Applicant and the Property to the terms of this Preliminary Conditions Letter.

Applicant Signature:

HERITAGE RIDGE, L.P.
a California limited partnership

BY: **Michael Towbes Construction & Development, Inc.**
a California corporation
its General Partner

By: _____
Michael Towbes, President

Date: Jan 12, 2016

Attachment A New Water Supply Charge

Based on review of the new potable water demand and credits for existing potable water use as outlined below, there is no New Water Supply Charge (NWSC) for the Proposed Project.

Forecasted New Potable Water Demand

The Proposed Project involves the development and construction of multi-family residential structures including 360 units, a community center, and a 2 acre park. Consistent with District Code Section 5.16.040(B), the District has reviewed the Annual Water Demand Report for the Heritage Ridge Project prepared by the Applicant's Engineer (MAC Design Associates) as revised December 7, 2015 (Demand Report) and has determined that new potable water service demand for the Proposed Project is estimated to be 44.812 AFY.

Total Residential Water Demand:	30.657 AFY
Total Landscape Irrigation Water Demand:	12.540 AFY
Total Commercial Water Demand:	1.6160 AFY
Total Water Demand:	44.812 AFY

Following receipt of a copy of the City of Goleta Building Permit, the District will review the estimated allocations and may revise the water demand estimate if there are any changes to the Proposed Project. Any additional development or changes of use, which exceed the existing water allocation on the Property will be subject to the current prohibition on approval of new water service applications.

As outlined in the Demand Report, with the addition of Heritage Ridge (Willow Springs, Phase 3), the total estimated water demand for all three phases of the Willow Springs project is 100.795 AFY.

Credit for Existing Potable Water Use

Credit for existing potable water use is based on the allocation of 100.89 AFY of water, as set forth in the Judgment upon Arbitration on February 26, 2002 for the entire Willow Springs project.

SAFE Water Supplies Ordinance and Water Emergencies

The SAFE Water Supplies Ordinance prohibits the District from approving water service for New Development, as defined under the District Code, unless specific conditions are met. Currently, those conditions are not met. In addition, the District has also declared a Stage 3 Water Shortage Emergency. Pursuant to Resolution No. 2014-32 adopted on September 9, 2014 (Resolution 14-32), the District has ceased approving applications for new or additional service connections beginning October 1, 2014.

Resolution 14-32 does not affect projects on properties that have a pre-existing water use credit sufficient for the proposed new development. The water credit available for the Proposed Project is greater than its projected demand. As a result, the Project does not require an additional SAFE allocation and is not subject to the prohibition on new water allocations set forth in Resolution 14-32. Nothing contained herein, however, prevents the District from imposing additional restrictions on water service to the Property.

Attachment B Water System Improvements Deposit and Monthly Charges

Water System Improvements Deposit

The Applicant must submit a Water System Improvements deposit for the District to perform any work summarized below and as described in detail in Attachment C. The cost estimate will be prepared during Plan Check Review for the improvements, including those identified in the table below. Pursuant to District Code Sections 6.04.020 and 6.04.040, all water main tie-ins and water meters are to be installed by the District staff. The exact deposit amount will be established in accordance with the following requirements.

Water System Improvements to be Constructed

The Proposed Project includes Water System Improvements that are to be constructed at Applicant's expense by either the District or the Applicant's licensed contractor as set forth in the table below. Where these improvements are located on private property, they must be located within easements and dedicated to the District. See Attachment C for details.

New Water System Improvements	Installed By
New Water System	
(9) Fire service meters (sizes TBD)	District
(6) 2-inch residential service meters	District
(2) 2-inch residential service meters	District
(4) 1-inch landscape irrigation meters	District
(1) 1-inch commercial service meter	District
(9) Fire service lines (sizes TBD)	Applicant
(6) 4-inch residential service lines	Applicant
(2) 2-inch residential service lines	Applicant
(4) 1-inch irrigation service lines	Applicant
(1) 1-inch commercial service line	Applicant
Install a backflow prevention assembly for all residential, commercial, irrigation and fire service meters	Applicant

Relocation of existing 20-inch District mainline	
Abandon existing 20-inch water line that crosses the project parcel	District
(1) 20-inch butterfly valve at new tie-in on Los Carneros Way	District
20-inch PVC waterline (on Calle Koral between Los Carneros Road and Los Carneros Way)	Applicant
(1) 20-inch butterfly valve at the connection on Los Carneros Road	Applicant
(1) 20"x20"x20" tee and (1) blind flange at connection of Calle Koral and Los Carneros Way	TBD

Applicant Responsible for Full Cost of Project

The District will keep a record of the labor, materials, permitting, and other costs for the District-installed specified Water System Improvements. For those Water System Improvements to be installed by the District, the Applicant will be responsible for actual costs of installation. If the costs are less than the amount deposited, then a refund will be issued to the Applicant for the difference. If the costs are greater than the amount deposited, the Applicant will be billed for the difference between the deposit and the actual costs.

The Applicant must submit a Construction Inspection Deposit and a Surety covering Performance, Labor, Materials, and Warranty for any portion of the Water System Improvements to be constructed by the Applicant, consistent with the District Standards & Specifications. The deposit will cover District-incurred costs for inspection and administration. In order to determine the required amounts, upon completion of Plan Check review, the Applicant must:

1. Submit a construction cost estimate prepared by the Project Engineer.
2. Submit a Construction Inspection Deposit (amount to be determined upon completion of plan review).
3. Submit a Surety for performance, labor, materials, and one-year warranty (per District Regulations, Title IV, Section 2.03.06) for work to be performed by Applicant.
4. Use a licensed contractor to install the new water facilities identified in the table.

The Surety must be in a form approved by the District. If the project is to be constructed and/or request water activation in phases, phased plans and sureties must be approved prior to completion of plan check review.

Monthly Charges

The monthly meter charge is the sum of all meters, even if the meter is redundant. This monthly charge is based on the size of the meter as determine during the Plan Check review and will commence upon installation of the meters. Charges are subject to adjustment by the District Board of Directors.

Meter Type	Number Required	Meter Size	Current Monthly Meter Charges (per meter)	Total Current Monthly Charges
Domestic Meters	8 (residential)	2-inch	$198.85	$1,590.80
Domestic Meters	1 (commercial)	1-inch	$ 68.16	$ 68.16
Dedicated Landscape Irrigation Meter	4	1-inch	$68.16	$272.64
Fire Sprinkler Line	9	TBD	$9.44	$84.96
Total Number of Meters	**22**		**Total Current Monthly Charge for all Meters**	**$2,016.56**

A charge currently set at $5.00 will be assessed on the bill of each customer who has a backflow prevention assembly installed to protect the potable water system. The Proposed Project requires 22 backflow devices for a total of $110.00 per month. This charge will be assessed per backflow assembly per month and is subject to future adjustment by the Board of Directors.

Attachment C Water System Improvements and Easements

For issuance of a Can & Will Serve Letter from the District, the Applicant must comply with the following Water System Improvement requirements.

Applicant must submit construction drawings and easement documents for the indicated required Water System Improvements to the District for review and approval. Prior to water service activation, the Applicant must have all Water System Improvements (including backflow prevention assemblies) constructed, installed, inspected, and tested to the satisfaction of the District. With respect to all work that the Applicant is required to perform, such work, labor, and services must be performed at the sole and exclusive cost of the Applicant. Changes in the PCL by subsequent amendment may increase costs and, to the extent that such costs are increased by subsequent requirements, such additional costs will be the sole and exclusive obligation of the Applicant.

Applicant must provide the following Water System Improvements and easements:

Waterline Improvements

1) Install (2) water main connections to the existing 10-inch waterline in Camino Vista and install a minimum 8-inch looped waterline along the proposed private interior street.
2) Install a 20-inch waterline along Calle Koral from the existing 20"x20" cross in Los Carneros Road and connect to the existing 20-inch waterline in Los Carneros Way.

Pursuant to District Code Section 6.04.020, service connections must be installed by District employees. Only authorized employees of the District are allowed to connect or disconnect the Applicant's service from the District water mains. Backflow prevention assemblies must be installed by the Applicant.

Service Connections and Meter Related Improvements

Meter-related improvements and services must be designed and installed per District Standards & Specifications and must appear on the construction drawings for the Water System Improvements.

The Applicant's licensed contractor will install the service lines and meter boxes. These service lines must be designed and installed according to the District Standards & Specifications and must appear on the construction drawings for the Water System Improvements. Traffic lids must be provided for all meter boxes subject to traffic loading. The Applicant is responsible for the installation and maintenance of the piping and plumbing connection from the downstream side (outlet) of the District meter to the subject parcel and on-site facilities.

Pursuant to District Code Section 6.04.020, service connections must be installed by District employees. Only authorized employees of the District are allowed to connect or disconnect the Applicant's service from the District water mains. Specifically, the following service connections must be constructed:

1. 20-inch water main connections, at
    a. The existing 20"x20" cross in Los Carneros Road. Tie into the existing cross with a new 20-inch butterfly valve. And,
    b. The existing 20-inch water line in Los Carneros Way (along Calle Koral). At the existing 20-inch waterline in Los Carneros Way, install a 20"x20"x20" tee with a 20-inch butterfly valve on the southerly side of the tee and a blind flange on the easterly side of the tee.
2. (2) 8-inch water main connections to the existing 10-inch waterline in Camino Vista (new looped 8-inch waterline).

Pre-Design Meeting

The Applicant's Project Engineer is encouraged to contact the District to schedule a pre-design meeting to ensure the engineer has a thorough understanding of these requirements and the District Standards & Specifications prior to beginning design work on the Proposed Project. Computer Aided Design templates and examples are available for the Project Engineer's use upon request. The Applicant's Project Engineer should obtain the appropriate record drawings from the District of the existing water system facilities prior to beginning design work on the Proposed Project.

Construction of Water System Improvements

As outlined in Attachment B of this PCL, certain Water System Improvements may be constructed by the Applicant or the District, as consistent with District Standards & Specifications. For the portion of work to be constructed by the Applicant, additional requirements will apply, including: a surety in the amount consistent with District Regulations, Title IV, Section 2.03.06, a construction inspection deposit, and a service connection deposit in amounts to be determined upon completion of final plan review.

Water activation requirements will include the Applicant submitting itemized contractual costs of major items of work, completion of formal inspection procedures, record drawings, and dedication of facilities.

Fire Protection Improvements

Pursuant to the County of Santa Barbara Fire Department letter dated September 22, 2014, public, commercial fire hydrants must be installed, the number and location of which are yet to be determined. Approved fire hydrant plans must be submitted to the District. In addition, automatic interior fire sprinkler systems must be installed in all buildings. The size of fire service meters will be determined upon the submittal of hydraulic calculations by a licensed fire sprinkler contractor.

Backflow Prevention Improvements

Commercial, residential, fire service and irrigation meters require reduced pressure principle backflow prevention assemblies (RPBAs) per District Standard Detail 4-01 and in accordance with District Code, and all must be shown on the submitted plans. Fire Lines require either a RPBA or a double check or a double check detector assembly (DC) or (DCDA) backflow assembly. All meter installations, backflow prevention assemblies, and on-site piping are subject to inspection and testing by District inspectors for cross connection-control and backflow prevention. All backflow

devices must be lead-free and located as close as practical to the meter. The location of all backflow assemblies must be approved by the District Cross Connection Specialist prior to installation. Backflow assemblies must be installed, inspected, and tested prior to any onsite work including demolition, grading, and construction.

Miscellaneous Water System Improvements

The existing 20-inch waterline along Los Carneros will be abandoned in place between Calle Koral and the point of connection with the existing 20-inch water line in Los Carneros Road to the north. The abandoned 20-inch waterline will be cut and capped at both ends. District forces will perform the construction work necessary for the abandonment.

Easements

All Water System Improvements to be dedicated to the District must be located within public right-of-way or easements dedicated to the District. If easements are required, the Property Owner must grant easements acceptable to the District for access to and maintenance of all Water System Improvements to be dedicated to the District. Easements must conform to the requirements as stated in the District Standards & Specifications. Easement documents must be based on the District easement template (available upon request) and must include descriptions for all necessary easements. The Applicant's Professional Land Surveyor or qualified Civil Engineer must submit easement documents for District review and comment. The District will notify the Applicant when the easements are acceptable for execution, notarization, and dedication.

Water Main Road and Easement Design Requirements

Per District Regulations, Title 4, Section 2.01.04.N:

> *District water mains on private property shall be located under paved roadways having a minimum traveled roadway width of 32 feet and shall be a minimum of 7 feet from the face of the southerly or easterly curb face or edge of pavement.*

Per District Regulations, Title 4, Section 2.01.04.O, the Applicant must provide a minimum 20-foot wide easement for all water lines. Additional easement design requirements are outlined in District Regulations, Title 4, Section 2.01.04.O as follows:

> *A 20-foot wide easement shall be granted to the DISTRICT for all waterlines on private property with less than 4 feet of cover from finished grade. For waterlines with more than 4 feet of cover, 2 feet of width shall be added to the 20-foot easement for each additional one foot of cover greater than 4 feet. Waterlines shall be located 5 feet from an easement line, property line or any other right-of-way line, or 1 foot for every foot of depth whichever is greater, except where required by the DISTRICT to allow for future extension, looping or access. If the water line easement is to be combined with other utility easements, the total width of easement shall not be less than 25 feet. Easements shall also extend to include and lie a minimum of 5 feet on each side of service connections, meters, hydrants and other appurtenances.*

The applicant will prepare quitclaim deeds for consideration by the District Board of any existing District easements associated with the existing 20-inch waterline to be abandoned.

Water Meter Work Order Information Spreadsheet

A Water Meter Work Order Information Spreadsheet is required (a template is available upon request). Using this spreadsheet, please list as much requested information as possible for all of the meters to be installed for the Proposed Project. Your engineer will be able to provide some of the information. This spreadsheet must be submitted and approved by the District prior to the District signing the construction plans. All new District meters shown on the construction plans (including fire line by-pass meters) must be included on this spreadsheet.

Civil Engineer and Land Surveyor

All engineering documents, calculations, design, and construction drawings for Water System Improvements to be dedicated to the District must be prepared by or under the direction of a civil engineer registered in the State of California (Project Engineer). Landscape architects and other professionals licensed in California can perform this work in certain District-approved circumstances, consistent with the District Standards & Specifications.

All right-of-way and easement documents, calculations, and exhibits for Water System Improvements to be dedicated to the District must be prepared by or under the direction of a land surveyor registered in the State of California and approved by the District.

All above documents must be prepared in accordance with the District Standards & Specifications. All such documents submitted to the District, whether preliminary or final, must be stamped and signed by the Project Engineer or land surveyor as applicable. For more information, the District Standards & Specifications may be found on the District website or provided upon request.

Hydraulic Calculations

The Applicant's Project Engineer must submit hydraulic calculations for all waterlines, fire hydrants, and fire lines to be dedicated to the District. The hydraulic calculations must demonstrate the adequacy of the proposed Water System Improvements. Required peak flows and fire flows must be stated. The hydraulic calculations must present selected pipe sizes, and resulting flows, fire flows, pressures, and velocities in accordance with the District Standards & Specifications. If the existing District water system is unable to meet the project requirements, the Applicant is responsible to have the necessary improvements designed and constructed or determine an alternative method of fire protection acceptable to the Fire Department.

Plan Check and Deposit

The Applicant must submit one paper set plus one electronic PDF set of the "Site Installation Plan" and a Plan Check Deposit prior to the District reviewing the plans. This deposit will be used for District-incurred costs for plan check and administration.

Pursuant to the District Standards & Specifications, the Applicant will either be invoiced if the actual cost to the District exceeds the amount of the Plan Check Deposit, or will be refunded any remaining balance after District costs are deducted. A Plan Check Sheet is available upon request for the engineer's use in developing the Water System Improvement plans. The "Site Installation Plan" will go through a plan check and revisions may be required. Once the plans are acceptable to the District and all other necessary conditions are met, the District will sign the plan for construction of the public Water System Improvements.

If the project is to be constructed and/or request water activation in phases, phased plans and sureties must be approved prior to completion of plan check review.

Project Engineer's Estimate

During Plan Check review, the Applicant's Project Engineer must submit an itemized cost estimate for the public Water System Improvements detailed above which are to be completed by the Applicants Contractor and dedicated to the District. This information will be used by the District to determine the surety and construction inspection deposit amounts.

Encroachment Permits and Traffic Control Plans

The Applicant will be responsible for providing all traffic control plans and obtaining the necessary encroachment permits and approvals from the City of Goleta and any other agencies with jurisdiction. Plans and permit approvals will be required at least two weeks prior to the District scheduling work for any Water System Improvements.

Contractual Cost and Dedication of Facilities

Prior to activation of water service, the Applicant's contractor must submit an itemized cost spreadsheet indicating actual cost of major items of work and total construction cost of Water System Improvements to be dedicated to the District. Applicant must also submit a completed Dedication of Facilities Form. The District may accept the Dedication once all facilities being dedicated have passed District inspection and completed record drawings are provided. Forms will be provided by the District to the Applicant and contractor following final inspection.

Record Drawings

Following completion of construction of Water System Improvements to be dedicated to the District, Applicant must submit Record Drawings to the District for review and approval. Water service activation and the refund of any portion of the Water System Improvements will not occur until after Record Drawings are approved by the District.

GOLETA WATER DISTRICT

4699 HOLLISTER AVENUE
GOLETA, CALIFORNIA 93110-1999
TELEPHONE 805/964-6761
FAX 805/964-7002

TECHNICAL ADDENDUM TO PRELIMINARY CONDITIONS LETTER Dated December 16, 2015

January 18, 2016

Heritage Ridge, L.P.
Michael Towbes Construction & Development
c/o The Towbes Group, Inc.
Attn: Michael Towbes, General Partner
21 E. Victoria St. #200
Santa Barbara, CA 93101

Re: Heritage Ridge Development (Willow Springs III)
APN: 073-060-031 through -043
Service Address: TBD

Dear Mr. Towbes:

The Goleta Water District (District) issued a Preliminary Conditions Letter (PCL) for the above-referenced project on December 16, 2015. While the overall project description has not changed, correction is necessary to describe the Water System Improvements and meter configuration anticipated to serve the proposed project. The final size number and location of meters will be confirmed during the District plan check review and shown on the final project plans.

The District is providing this Addendum to the PCL; it is intended to reflect these technical changes, as outlined below. This letter does not supersede any other conditions provided in the PCL. As stated in the signed PCL dated December 16, 2015, changes in the PCL by subsequent amendment may increase costs and, to the extent that such costs are increased by subsequent requirements, such additional costs will be the sole and exclusive obligation of the Applicant.

Water System Improvements

The table below summarizes the new Public Water System Improvements needed for this project and the party responsible for construction.

New Water System Improvements	Installed By
New Water System	
(10) Fire service meters. (Depending on calculations, some may be DCDAs, which would be installed by Applicant)	District
(8) 2-inch residential service meters	District
(4) 1-inch landscape irrigation meters	District
(2) 1-inch commercial service meter	District

(10) Fire service lines (sizes TBD)	Applicant
(6) 4-inch residential service lines	Applicant
(2) 2-inch residential service lines	Applicant
(4) 1-inch irrigation service lines	Applicant
(1) 2-inch commercial service line	Applicant
(1) 1-inch commercial service line	Applicant
Install a backflow prevention assembly for all residential, commercial, irrigation and fire service meters	Applicant

Monthly Charges

The monthly meter charge is the sum of all meters, even if the meter is redundant. This monthly charge is based on the size of the meter as determine during the Plan Check review and will commence upon installation of the meters. Charges are subject to adjustment by the District Board of Directors.

Meter Type	Number Required	Meter Size	Current Monthly Meter Charges (per meter)	Total Current Monthly Charges
Domestic Meters	8 (residential)	2-inch	$198.85	$1,590.80
Domestic Meters	2 (commercial)	1-inch	$ 68.16	$ 136.32
Landscape Irrigation Meter	4	1-inch	$68.16	$272.64
Fire Sprinkler Line	10	TBD	$9.44	$94.40
Total Number of Meters	**24**		**Total Current Monthly Charge for all Meters**	**$2,094.16**

A charge currently set at $5.00 will be assessed on the bill of each customer who has a backflow prevention assembly installed to protect the potable water system. The Proposed Project requires 24 backflow devices for a total of $120.00 per month. This charge will be assessed per backflow assembly per month and is subject to future adjustment by the Board of Directors.

If you have any questions regarding this matter, please contact Jim Heaton at (805) 879-4652.

Sincerely,

Ryan Drake
Water Supply & Conservation Manager

Attachments

Fully Executed PCL dated December 16, 2015